SEMESTER-III

ଓଡ଼ିଶା ରାଜ୍ୟ ମୁକ୍ତ ବିଶ୍ୱବିଦ୍ୟାଳୟ, ସମ୍ବଲପୁର
ODISHA STATE OPEN UNIVERSITY, SAMBALPUR

ଓଡ଼ିଶା ରାଜ୍ୟ ମୁକ୍ତ ବିଶ୍ୱବିଦ୍ୟାଳୟ, ସମ୍ବଲପୁର

Odisha State Open University
Sambalpur

MASTER OF ARTS
ECONOMICS
(MAEC)

MEC-301: PUBLIC FINANCE

Credit: 4

Block-1, 2, 3 & 4

MAEC-301 : PUBLIC FINANCE

Brief Contents

ODISHA STATE OPEN UNIVERSITY, SAMBALPUR

Programme Name: **Master of Arts (Economics)** Programme Code: **MAEC**

Course Name: **Public Finance** Course Code: **MECE-301**

Semester: **III** Credit: **4** Block No. **1 to 4** Unit No. **1 to 16** . **253**

EXPERT COMMITTEE

Prof. (Dr.) Deepak Kumar Mishra (Chairperson)
Centre for the study of Regional Development
School of Social Science, JNU, New Delhi

Dr. Mahendra Nayak
Director (Data Science),
Eversena, Bangalore

Dr. J Dennies Rajkumar (Member)
Director, Economic and Political Weekly
Research Foundation Mumbai

Prof. Pravakar Sahoo
Institute of Economic Growth
New Delhi

COURSE WRITERS

Mr. Ajaya Kumar Mishra
Assistant Professor
Odisha State Open University
Sambalpur,Odisha

Dr. Sachidananda Boxi
Associate Professor
Odisha State Open University
Sambalpur,Odisha

Dr. Ashish Dash
Academic Consultant
Odisha State Open University

EDITORIAL COMMITTEE

Dr. Uttam Kumar Pradhan
. Assistant Professor
Odisha State Open University

Printed and published by

Registrar
Odisha State Open University, Sambalpur

Printer:

CONTENTS

PUBLIC FINANCE

Unit 14: Burden of Public Debt; Sources of Public Debt; Debt through created money

Introduction, Concept of Public Debt, Need for public Debt, Sources of Public Debt, Classification of Public Debt, Burden of Public debt, Debt through created money.

Unit 15: Public Borrowings and Price Level; Crowding Out of Private Investment and Activity; Principles of Debt Management and Repayment

Introduction, Public Borrowings and Price level, Crowding out of private investment and activity, Principles of debt management and repayment.

Unit 16 The Public Budget

Introduction, Types of Budget, Performance Based Budgeting (PBB), Traditional-Vs Performance-Based Budgeting (PBB), Main concepts employed in PBB, Zero Based Budgeting.

BLOCK 1: Public Finance: Basic Concept

Unit-01: Introduction to Public Finance

Structure:

1.0 Learning Objectives

After going through this unit the learners will be able to understand

- Nature, overview and Scope of Public Finance
- Public sector and its relevance
- Role of Government and its changing dimensions

1.1 Introduction

Public finance as a field of economic analysis has assumed increasing importance in modern time. A large number of factors have contributed to this trend and the most important of which has been the continued growth of public sector in almost all the countries of the world. The continued growth of public sector with changes in government fiscal activities initiated during the great depression in the thirties have brought about sea changes in the study of public finance. Government similar in some respect to business or consuming units may buy resources, sell goods and services, spend money, sell securities, buy services and engage in many activities of private business that affect that allocation of resources, the distribution of incomes and general level of activity within the country. Unlike the operation of private sectors most government activities are not designed to maximize profit.

Public finance also known as Public Economics (Economics of Public sector) is a study of the financial activities of government and public authorities. It assesses the expenditures of government and uses the techniques to finance these expenditures. It studies the activities performed and services provided by the government and taxes being imposed generates its funds. It examines the influence of government financial operations on growth, employment and prices .In a nutshell, we can say that public finance is the study of the government. Let us discuss some standard and balanced definitions of public finance. Sir Hugh Dalton says "Public finance is concerned with the income and expenditure of public authorities and with the adjustment of one to the other." Prof R.R.Musgrave opines "The complex of problems that centre on the revenue expenditure process of government is referred to as public finance". Similarly Prof J E Taylor points out, "Public finance is concerned with operation of the fiscal or public treasury. Hence, to the degree that it a science, it is a fiscal science, its policies are fiscal policies, its problems are fiscal problems" Thus it can be summarized from the aforesaid definitions that, the public finance can be categorized in to public revenue and public expenditure as two symmetrical branches of the subject.

1.2 Nature, overview and Scope of Public Finance

Fiscal theorists have given different concepts of the nature of public finance. Seligman and many others speak of the pure theory of public finance, which deals with the problems of public income, expenditure and public debt in an objective manner without any relation to the concept of welfare. This may be termed as Doctrine of Sound Finance. . On the other, hand the socio-political theory of public finance supported by Wagner, Edgeworth and Pigou insist that the state through fiscal policy transfer incomes from the rich to the poor with object of maximizing social welfare of the community. This is popularly termed as Pigouvian Doctrine of Welfare Finance. Then with the publication of Keynes' General Theory in 1936, the Pigouvian Doctrine was replaced by Keynesian Doctrine of Functional Finance.

Functional Finance ;Functional finance, an essentially a new concept of public finance propounded by Keynes and Hansen emphasize compensatory action of state through fiscal policy to stabilize and regulate consumption under assumption that a capitalistic economy by itself cannot function and the state will have to come to the rescue of the economy.

Activating Finance; Activating finance states on the assumption that national income is a function of savings and investments at all times and in all places; and the people are poor because the volume of national income is small. Hence, activating finance expects that the state should make such fiscal adjustments that will facilitate a flow of investments to bring about an optimal resource allocation.

Federal Finance; The system of federal finance applies to an economy, which is federal in character. India for example is a federation in the sense that there is a centre and there are states. In India's federal structure, a clear distinction is made between the Union and States functions and their sources of revenue, but the residual powers vest in the Centre. In every federal structure, there is a written constitution to specify the functions and the sources of finance of the federating units.

Local Finance; In the in the Indian constitutional set up, some functions of administration are assigned to local bodies such as village, panchayat, municipality and district board. Naturally for the efficient discharge of their function, these bodies require funds. They have therefore been allotted sources of revenue, including grants from the state government. The study of functions of the local bodies and their sources of finance become the subject matter of local finance.

So far as the scope of public finance is concerned, Harold Grover, an authority on the subject says, "A field of inquiry that treats of the income and out go of governments (federal, state and local).In modern time this include four major divisions –public revenue, public expenditure, public debt and certain problems of the fiscal system as a whole such as fiscal administration and fiscal policy" Thus, the scope of public finance may be summarized as under.

a) Public Revenue
b) Public Expenditure
c) Public Debt
d) Budget.
e) Fiscal Administration

1. **Public Revenue:** The public revenue that is the income of the government or the sources of revenue is classified under tax revenue and non-tax revenue and explains factors like the types of taxes, the effect of taxes on the economy & the people, the advantages & disadvantages of taxes etc.

2. Public Expenditure: The classification and objectives of public expenditure, , causes behind increase in public expenditure, effects of spending money on different heads and above all how the government can influence the production of goods and services through the instruments of public expenditure is the focal point of this branch of public finance/.

3. Public Debt: Public debt deals with the classification of public debt, burden of public debt and the causes behind the growth of public debt. In addition, it attempts to answer why the government requires loan debt management and the methods adopted by the government for debt redemption.

4. Budget: The budget is an annual statement of anticipated revenue and expenditure of the government prepared with the intention of providing maximum welfare to the public. The characteristics and kinds of budget and the budgetary framework is defined under the constitution.

5. Fiscal Administration: Fiscal administration deals with the "objectives, the methods of preparing, passing, auditing, implementing and evaluation" of public budget. Under fiscal administration, the government machinery is responsible for performing various functions of the government.

1.3 Public sector and its relevance

Let us discuss the sphere of relevance of public sector in an economy.

i. Production of Non-private Offering Goods and Services.
ii. Failure of Market Mechanism
iii. Risks Involving Projects.
iv. Securing Economic Stability.
v. Source of Initiative.
vi. Change in Pattern of Production.

vii. Externalities.

(i) Production of Non-private Offering Goods and Services.

Certain essential goods and services, which could not be supplied by the private sector, because of huge investment, long gestation period and less profits calls for public provisioning. Further government is also involved in providing goods like private goods, mixed goods social goods and merit goods as discussed below:

Public Goods:

Public goods are those goods which are produced by the government to satisfy human wants. A good may be public, but not produced by the government. The examples are water, defense, education, health etc. Though these goods can be be produced by the private sector, the government should take necessary steps to improve the economic efficiency of producing these goods. Because of the presence of twin characteristics of public goods i.e. 'Impossibility of Exclusion' and 'Non-rivalry in Consumption', the market mechanism fails completely in the supply of public goods. Thus the government through public sector must intervene in ensuring an efficient supply of public goods.

Private Goods

Private goods (endowed with the properties of excludability and rivalry) are those goods which are produced by the private sector to satisfy private wants. These goods are financed and supplied by market for price payments. They do not come under budgetary mechanism. Private goods (For example, public housing and electricity) are also produced and supplied by the government.

Mixed Goods:

Mixed goods are those good that has the combine feature of public goods and private goods. For instance, goods like Polio drop may be classified under this category.

Social goods:

The government provides social goods since the exclusionary principle does not apply to them and they are not competitive. The consumer sovereignty principle applies to social goods and therefore, they are created based on individual preference.

An individual consumer's happiness with societal goods is unrelated to his own contribution. Because of this, the price of social goods is not determined by the market, the way it is determined for the private goods. Defense, law and order, etc., are some examples of social goods.

Merit Goods:

The goods which are produced by the government for the purpose of increasing the economic well-being of the public are called," Merit Goods''. The term merit goods as introduced by Musgrave. Musgrave classified the public goods into "Social Goods 'and "Merit Goods". Merit goods are public goods but they differ from social goods, because merit goods result in interference with consumer choice. The difference between social goods and merit goods is explained with a simple illustration. The poor people need standard schooling, hospitals etc. But private schools and hospitals are maintained at high cost, which the poor cannot pay. Hence, the government should provide these goods to the poor people directly or indirectly. Direct provision means, starting of government schools. Indirectly provision means, government gives subsidy to private educational institutions and hospitals. Hence, these goods are merit goods.

(ii) Failure of Market Mechanism

The market failure in case of private sector is another justification of intervention by government action. As we know, under ideal condition of perfect competition namely homogenous product, no barrier on free entry and free exit for firms, perfect information, perfect mobility of factors of production etc. the market mechanism works efficiently. But finding perfect competition in the real world is a myth. What is true in real world is imperfect types of market namely monopoly, duopoly, oligopoly etc, where market mechanism fails to operate. Hence, the government need to take appropriate steps for prevention of imperfect markets. So in order to safeguard the interest of consumers against market failure the government has to intervene in the sphere of economic activities.

(iii) Risks Involving Projects.

As the private entrepreneurs cannot dare to undertake certain projects involving risks, high gestation period and heavy cost the usually the governments come forward to take up such project for the benefit of the society The most appropriate example is investment in Indian Railways.

(iv) Securing Economic Stability.

To push up a developing nation like India on the path of economic development, securing economic stability is the prime need of the government. So at the time of crisis in such economy, the government has to step in to correct the economic instability by restoring price, employment and income. This could be done only by the government, not the private sector.

(v) Source of Initiatives

In order to give initiatives to improve the quality of goods and services, there is a need for government activity. The manager in the public sector should take initiates to improve the quality of existing goods and services or to introduce a new commodity or services.

(vi) Change in Pattern of Production.

It is the responsibility of the government to enter in to the field of economic activity, production and distribution in order to change the pattern of consumption. It should encourage the consumers to use the quality products and to discourage the use of harmful goods, drugs etc.

(vii) Externalities.

Externalities are the positive benefits that an economic unit (a company, customer, or industry) has on other people. It refers to the financial consequences brought on by the creation or consumption of goods and services by other people. Externalities and public goods are interrelated. For example, the benefits of education on the learner's general wellbeing and skill level are well understood. Education helps a person to become a better citizens. Since everyone is impacted by education, each person's education has a ripple effect that benefits the entire country. This external benefit, has public good properties inbuilt within. In a similar vein, the air pollution caused may be cited as a case of negative externality.

Public sector now carries high responsibilities for stabilizing and fostering the growth of the economy. The importance of public sector lies in the fact that the market mechanism alone cannot perform all economic functions –namely a) allocation, b) distribution, c) stabilization and d) growth. Hence, intervention of public sector is essential for correcting and supplementing the market mechanism in certain aspects.

1.4 Role of Government and its changing dimensions

In recent years, there has been a tremendous increase in the role of the governments in almost all the countries of the world. But the scope and role of government varies from country to country. A pure capitalist economy is endowed with the following basic features:

a) Freedom of enterprise
b) Private ownership of means production
c) Consumer sovereignty

The aforesaid three features of a capitalist system boils down the role of "government to the role as prescribed under a "Lasseiz fare economy '. At the same time, the system ensures that the basic economy questions of what to be produced, how it is to be produced, where it is to be produced and for whom it is to be produced are addressed by consumers..

In a socialistic economy, the ownership of means of production rests with the governments and the private sector is allowed in some minor fields of the economic activity. The basic economy questions under this system are solved by the government.

In a mixed economy the government plays an important role in allocating resources for economic development and maintaining price stability. Here the public sector coexists with private sector. But the public sector assumes "commanding heights" and determines the rate and structural patterns of economic development. In fact neither capitalism nor socialism in there purest form exist in real world. Therefore, it is said that in the real world all economies are mixed economies with some degrees.

.In these countries, the pricing mechanism is the focal point of directing production, consumption, saving and investment. But governments intervene to maintain economic stability, promote social justice and provide public services, which the market economy fails to provide.

1.5 Summary

Public finance also known as public economics, after discussing some standard definitions, one can say that it is a study of public revenue and public expenditure as two symmetrical branches of subject. Then we discuss the doctrines and views of different schools of thought on nature & overview of public finance and thereafter scope of public of public economics. Then, we discuss the activities of role and relevance of government in an economy. We also high light at end the role of government under different economic systems till the modern economy

1.6 Key Words

Capitalism	Capitalism is an economic system based on the private ownership of means of production and their operation for profit.
Laissez-faire	Laissez-faire (Let alone) is an economic philosophy of free-market capitalism that opposes government intervention.

Mixed Economy	Mixed economy is an economic system, where both public sector and private sector coexist. In other words, a system that combines aspects of both capitalism and socialism
Public Finance	Public finance also known as Public Economics(Economics of Public Sector) is branch of Economics, which deals with financial activities(public revenue and expenditure) of public authority
Public Sector	Public sector is the segment of the economy owned, controlled, and operated by government.
Socialism	Socialism is an economic system, where the means of production is owned and controlled by the state
Functional Finance	Spending is the starting point of functional finance. It emphasizes compensatory action through fiscal policy.
Activating Finance	Production is the starting point of the functional finance. It emphasizes the state through fiscal adjustment will bring about optimum resource allocation.
Federal Finance	In Federal finance, a clear cut distinction is made between the Union and State functions and their sources of revenue, and ultimately the residual powers vest with the center.
Local Finance	The study of the functions of the local bodies like village, panchayat, municipality and district board and their sources of finance is called local finance
Doctrine of Sound Finance	The raising of revenue and allocation of expenditure were looked upon strictly in an objective manner without any reference to promotion of public welfare in the society.
Doctrine of Welfare Finance	The promotion of economic welfare in society is an essential and indispensable function of public finance

1.7 Model Questions

1. "The study of public finance has assumed increasing significance in the field of economic analysis in recent times" Explain the statement.
2. What do you mean by public finance? Discuss the scope of public finance.
3. What is public finance? Explain the nature of public finance.
4. What is public finance? Discuss the relevance of public sector in modern times.
5. Explain the role of government and its changing dimensions.

1.8 References

1) Public Finance in Theory and Practice by Peggy Musgrave and Richard Musgrave

2) Behavioral Public Finance by J.E. Taylor

3) Principles of Public Finance by H. Dalton.

4) Financing Government by Harold Groves.

1.9 Additional Readings

1) Public Economics by R.K.Lekhi & Joginder Singh

2) Public Finance by H.L.Bhatia

3) Public Finance in Theory and Practice by S.K.Sing

4) An Introduction to Public Finance (Fiscal Economics) by Bose, Ganeshan & Marimuthu

Unit-02: Public Goods and Market Failure

Structure:

2.0 Learning Objectives

The learners will gain a good understanding after going through the following;

i) to acquire knowledge on the meaning of market failure.
ii) to know about the meaning and features of public goods, private goods and merit goods.
iii) to share knowledge on market failure in the context of public goods.
iv) to ascertain the efficiency conditions for the provision of public goods and
v) to unearth the case for the state provision of public goods.

2.1 Introduction

Market failure refers to a situation of allocative inefficiency in the market. The prime causes of market failure are existence of imperfect/incomplete makets,presence of externalities and provision of public goods. The goods that we come across in public finance may be classified as private goods, public goods, merit goods etc. When an individual consumes a private goods called a piece of pizza, it is available for consumption to the person who pays, not for others. But strangely enough, when an individual consumes a pure public goods like “national and domestic security or public health or welfare programme” (all examples of public goods), the quantum of goods available for consumption by other is not diminished as per property of ‘non-excludability’.

Market failure arises in the provision of public goods because of “Free-Rider Problem.” Now who is a free-rider? Free-rider is a person, who does not reveal his true preference for the goods he wants, but at the same time attempts to enjoy the goods in question without paying for it.This free-rider problem justifies the government’s intervention to solve the problem of market failure.

2.2 Private Goods, Public Goods & Merit Goods

1)Private Goods: Private goods refer to that goods which satisfy the private wants and supplied by the market on price payments; they need not require any budgetary mechanism. The following are some of the features of private goods

i)Rivalry in consumption: Private goods are rival in consumption in the sense that consumption by one person reduces the quantity available for others. It is denied to others. For example, a piece of pizza eaten by A cannot be eaten by B. Here, the benefits are internalized and consumption is rival. Therefore, the private goods are said to be rival.

ii)Exclusion principle: The exclusion principle states that a consumer is excluded from the enjoyment of any particular commodity or service, unless he pays the stipulated price to the owner. Here exchange cannot take place without property rights and property rights require exclusion.

iii) Revealed preference: In the satisfaction of private goods, market functions as auction place forcing individual consumers to reveal their true preference. Market furnishes a signaling system, where producers are guided by consumers’ preference

Thus, the features like rivalry in *consumption*, possibility of exclusion and revealing of true preference all go together in determining the nature of private goods.

2)Public Goods : Public goods are those goods, which satisfy the public wants and supplied by the government. Though, public goods are socially valuable, but due to the presence of twin features stated below, cannot be supplied by private sector. Let us proceed to discuss its features.

i)Non-rivalry in consumption :A public goods being non-divisible once supplied, it is jointly consumed on equal basis by all consumers in the society. One person can increase his satisfaction from the goods without reducing that obtained by other. In otherwords,the marginal cost created by an additional consumer of the product is nil. For example, here, there exists non-rivalry in consumption between consumers A and B. There is no way by which consumer A in consuming more can cause consumer B to consume less.

ii)Impossibility of Exclusion ;The principle of exclusion does not hold good in case of public goods.Accordingly,no one can be excluded from its consumption by a failure to pay for it voluntarily. Thus, non-excludability is another important feature of public goods.

John.G.Head has talked about the national public goods, the regional public goods and local public goods. National defense is the classic example of national public goods, which should be provided by the central government. The regional public goods like highways and certain public health measures should be provided by the regional governments. Local public goods like police and fire protection should be the responsibility of the local governments. A multi-level governments is structured from the point of view of ensuring an efficient supply of public goods and services

3) Merit Goods: Merit goods are those goods, which are met by services subject to the 'Exclusion Principle' and are satisfied by the market within the limits of effective demand. Merit goods have some common characteristics with private goods,but merits goods have wide positive externalities. In the satisfaction of merit goods, social benefits exceed the private benefits. The public services aimed at the satisfaction of merit goods include such thing as publicly furnished school luncheons, sub-subsidised low-cost housing and free education. In case of merit goods,the interference with consumers' sovereignty is the crux of the matter. Musgrave's division of public goods in to social and merit goods is artificial and arbitrary. The government must provide for the satisfaction of social goods. In other words, the goods and services needed to satisfy public goods must be paid out of revenue collected by the government.

2.3 Public Goods & Market Failure

Public goods supplied by the government give benefit to all members of the society. Their production is socially desirable, but the twin features of public goods namely –i) non-rivalry in consumption and ii) non-excludability make it infeasible for market to achieve economic efficiency. Non- rivalry in consumption means that consumption of a public good by a person does not reduce its consumption for others. The same unit is available to all and without mutual interference. On the other hand, due to non-excludability feature of public goods, it is difficult to prevent from consuming those people, who do not pay for these goods. Exclusion is inappropriate in case of public goods, as their consumption is non-rival. Since,A's taking share in the consumption benefit does not hurt B,the exclusion of A would be inefficient.

Free-Rider Problem: Because of the feature of non-excludability of public goods, the producers are not able to prevent those from consuming the commodity, who have not contributed in the cost of production of that commodity. They may think it otherwise that public goods will be provided to them somehow, even if they do not reveal their true marginal valuation for the public goods. This feeling is called what is known as " Free-Rider Problem". Commenting on this issue, R.A.Musgrave & Peggy Musgrave opine, "Since total level of provision will not be affected significantly by any one person, the individual consumer will find it in his or her interest to share as 'a free-rider' in the provision made by others. With all consumers acting in this fashion, there is no effective demand for goods. The auction system of the market breaks down and once more a different method of provision is needed." The free-rider problem leads to under provision or no provision of public goods and thus causes market failure.

Causes of Market Failure; The topic of market failure is growing importance among the public economists due to its adverse impact on market efficiency.Usually,perfectly competitive market ensures economic efficiencies or Pareto optimality i.e. State of maximum social welfare.There are mainly three causes of market failure namely- i. existence of monopoly or imperfect competition,

ii. presence of externalities and iii. provision of public goods. Here, we shall focus on the last cause of market failure i.e. provision of public goods. The market failure requires corrective measures through government intervention in the public interest. In this regards,the government is supposed to go for two types of efficiencies namely- allocative efficiencies and productive efficiencies.3.

i) Allocative efficiency refers to a situation, where resources are distributed in such a way that no consumers could be made better off without making other consumers worse off. This is called as Pareto efficiency.

ii) Productive efficiency is achieved, where production is carried out at its lowest cost, which implies Minimum optimum plant.

2.4 Public Goods & Efficiency Conditions

So far as the efficiency conditions for provision of public goods is concerned, there are two schools of thought namely 1) Voluntary Exchange Theory (based on partial equilibrium setting) 2)Samuelson's Theory of Public Goods(based on general equilibrium setting).The former is mainly propounded by Wicksell,Lindahal and Bowen and the latter is developed by P.A.Samuelson. We shall discuss the two simplified version of the model

1) Voluntary Exchange Theory: The voluntary exchange theory suggests that the resources should be allocated to the public sector in such a manner analogous to their allocation in the market with its price system. That means an individual should buy the public goods through the payment of taxes just as he elects to purchase the private goods through the market price. He becomes a tax payer-buyer, who pays taxes for the purchase of public goods in accordance with benefit derived from them. The theory makes three assumptions. Firstly, production or supply of public goods is constant.Secondly,there is one public good called G. Thirdly, there are three consumers or taxpayers A,B and C constitute the society. Look at the figure-1 given below, each consumer has a demand schedule for the public goods G at various prices. AA,BB and CC curves represent demand for public goods G, by consumers A,B and C respectively. DD, the aggregate demand curve for public goods is a vertical summation of individual demand curves. That means the quantity demanded,Q2 of public good G. shown at R on the aggregate demand curve DD is the same amount as demanded by each consumer-taxpayer on his individual demand curve indicating both "joint" and "equal" consumption of public good.

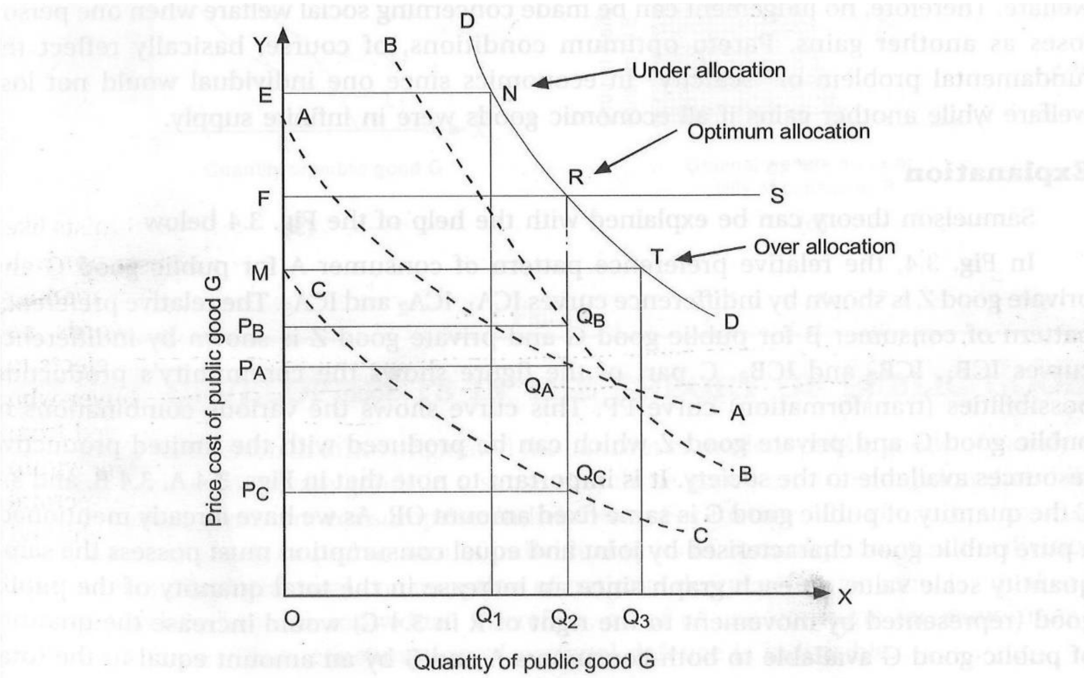


Figure-1 Optimum Provision of Public Goods in Partial Equilibrium Analysis.

The optimal equilibrium output of public good G is at point R with quantity Q3. This is determined by the intersection of the aggregate demand DD and the supply curve FS. At any point less than Q2, for example Q1 at point N, on the aggregate demand curve,the demand price per unit exceeds the supply cost per unit by the amount EF representing sub-optimal allocation or under supply of the public good. On the other hand, at any point other than Q2, for example Q3 at point T on the aggregate demand curve, the supply cost per unit exceeds the demand price by the amount FM representing again sub-optimal allocation or over supply public goods.

Hence,at the optimal output Q2, the consumer A will pay OPa, consumer B will pay OPb and consumer C will pay OPc per unit of price. The combined payment of the three tax payers-consumers equals the per unit cost, which is also OF as measured along the Y-axis.The tax shares of tax payer-consumers A,B and C are simultaneously determined according to their own valuation of the benefits they receive from the public good. A is willing to pay OPa, B is willing to pay OPb and C is willing pay OPc per unit for public goods. OF, the total per unit cost of public good OF = OPa + OPb + OPc

2) Samuelson's Theory of Public Goods : Samuelson's theory is an improvement over the voluntary exchange theory incorporating private goods versus public goods in a general equilibrium setting. The major objective of Samuelson's theory is to maximize social welfare through provisions of private and public goods determined on the basis of individual choice.Samuelson defines public goods as, " A public consumption good is good, which is provided for each person to enjoy or not, according to his taste, but it differs from the private consumption good in that each man's consumption of it is related on the total by the condition of equality rather than summation."He has used the concept of Pareto optimality. This is a point where (a world consisting of two persons A and B) welfare of an individual A cannot be enhanced any further without adversely affecting that of B. He has used the technique of new welfare economics for simultaneous determination of volume of public as well as private goods which the society should produce and allocation of tax shares among consumer-taxpayers. He has also used the concept of social welfare functions. His theory accepts interpersonal utility comparison based on distributional value judgments.

Samuelson's condition states that for the efficient provision of public goods, the combination of private and public goods should be such that further substitution of private goods for public goods will result in a decrease in social utility. For this, the condition is:

MRS = MRT, Where, MRS is the marginal rate substitution for public and private goods for all individuals and MRT is the economy's marginal rate of transformation between public goods and arbitrarily chosen private goods.

Let us proceed to discuss the general equilibrium for the provision of public goods.Consider that an economy has two consumers and they consume two goods private and public. In the figure-2 given below, TT shows the production possibilities for the economy,all points 4,8,2 on this curve show optimum or efficient combinations of private and public goods.

Now to determine the issues like; 1. How should resources be allocated ? 2.What combinations of private and public goods should be produced?

Samuelson's theory is to decide first how well off a person is going to be and then, search for the combinations of private and public goods, which make the other person as well off as possible. If we fix the level of welfare of A at IA2, that means that A will consume Og of G and g1 of X. B will also consume Og of G and the difference between g2 and g1 i.e. g3 of X , if the economy operated efficiently.

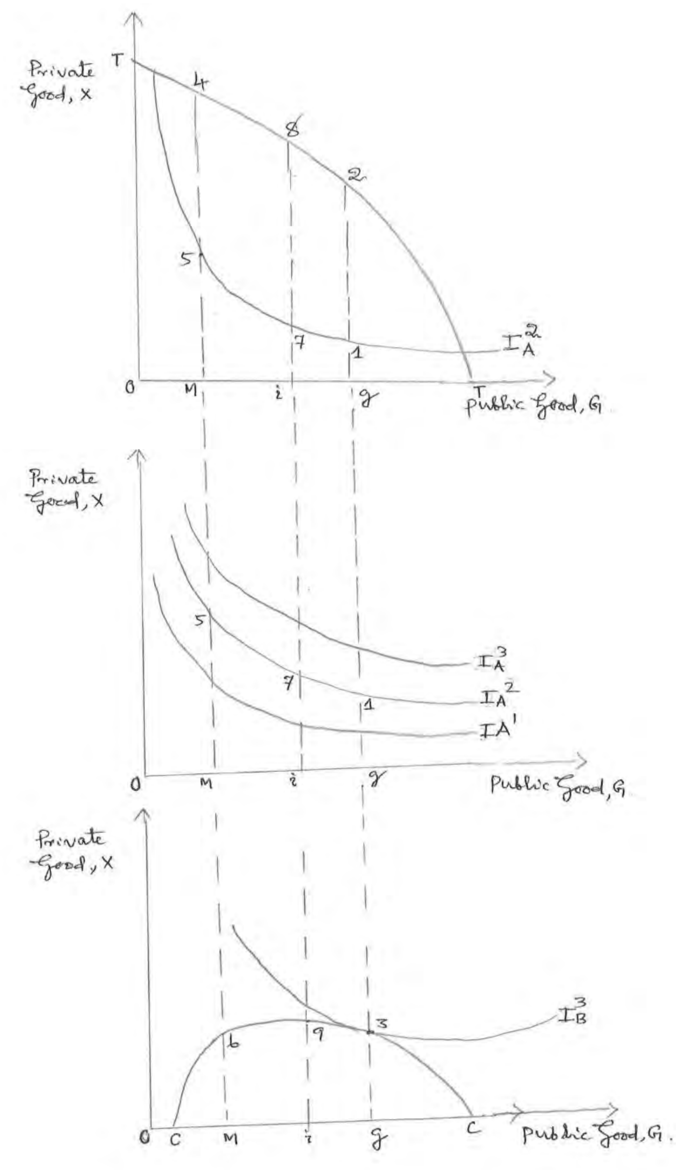


Figure-2 Samuelson's General Equilibrium Analysis for Optimum Provision of Public Good

Repeating the process for each possible output of public good, we derive CC. CC curve represents the consumption possibilities available to individual B, assuming A is kept on IA2. It is derived by deducting IA2 from TT, bearing mind that,when units of public goods are provided for one individual, these are provided for other individual too. Welfare of B is maximizing at 3 where his IC is tangent to CC. Hence, Pareto optimum resource allocation for the economy would be Og public goods and g2 private good. At point 3, tangency has been found by deducting MRSgx for A from MRTgx and then equating MRSgx for B to the slope of CC.

$$MRSgxB = MRTgx – MRSgxA$$

$$\text{Or } \ MRSgxi = MRTgx$$

2.5The need for provision of Public Goods through the State

The government being the custodian of the welfare of the people makes provision of public goods associated with social benefit.Therefore, it is up to the government to decide what kinds of public goods is appropriate for society.

Because of the following reasons the case for public provision of public goods is justified.

1.Peculiar features of public goods ; The peculiar features of public goods like non rivalry in consumption and impossibility of exclusion leads to market failure and their production is not possible ,unless the government come forward to make provision of such socially valuable goods like national defence,highways, street lighting, public park , library etc

2. Free-rider problem; The free-rider problem leads to under provision or no provision of public goods and thus causes market failure. The free-rider think it otherwise that public goods will be provided to them somehow even if they do not reveal their true marginal valuation for the public goods. Hence, this is another justification for state provision of public goods.

3.Merit goods: There are certain public goods, which are merit in the sense that their social benefits are greater than the private benefit and it is in the interest of society to produce and consume such goods on a large scale. Health care and quality education are such examples. This is another reason for state provision of public goods.

4. Externalities; Externalities occur when one person's action affects another person's wellbeing and the relevant costs and benefits are not reflected in market places. Here, mention may be made of negative externalities, which occurs when one person's action harm another. For example, when polluting factory owners may not consider the costs that pollution imposes on others. Here, market fails if there are no property right and negotiation is costly. In view of this, the government must be involved in both provision of public goods and control of externalities.

Apart from the above-mentioned arguments, there are some other cases of government provision of public goods Air quality is also a public good which is under-provided in a private market. Hence, there are a number of responses to poor air quality.

2.6 Summary

The unit started by introducing the concept and causes of market failure in case of public goods, types of efficiencies, definition and characteristics of public goods, private goods and merit goods. Then, in the context of public goods and market failure, efforts are made to highlight how the features of non-rivalry in consumption & impossibility of exclusion of public goods in general and free-rider problem in particular lead to failure of market and under provision of public goods. Thereafter, while discussing the efficiency conditions of provision of public goods, the views of two schools of thought namely 1.voluntary exchange theory (based on partial equilibrium setting) and 2. Samuelson's theory of public goods (based on general equilibrium setting) are separately dealt with. Finally, the unit ended focusing on the cases calling for state provision of public goods.

2.7 Key Words

Market Failure	Market failure refers to inefficient allocation resources due to the presence of imperfection in the market mechanism.
Public Goods	Public goods are known for their twin features of non-rivalry

	in consumption and impossibility of non-exclusion. Market mechanism fails in case of public goods.
Private Goods	The features like rivalry in consumption, possibility of exclusion and revealing of true preference, all go together in determining nature of private good.
Merit Goods	The goods that are useful not only to consumers, but also to the society by and large are regarded as merit goods and their consumption is encouraged by government
Free-rider problem.	The provider of public goods cannot exclude the free rider from its enjoyment. A free-rider is a person, who does not reveal his preference for provision of a public good, but at the same time wants to enjoy the goods without paying for it.
Externalities	Externalities means ‘of or from outside’. An externality is a situation, where a consumer or producer is affected positively or negatively by consumption or production by another agent. Or in otherwords,externalities occur when one person’s action affects another person’s well being and the relevant costs and benefits are not reflected in market places.

2.8Model Questions

1.What do you mean by public goods? Explain the condition of market failure in the provision of public goods.

2.Discuss the theories explaining the efficiency condition for the provision of public goods.

3.Examine the role of government intervention in the provision of public goods.

4.What is free-rider problem ? What are its implication for efficient provision of public goods.

5.Distinguish between the voluntary exchange theory and Samuelson’s theory of public goods.

2.9 References

1) Public Finance in Theory and Practice by Peggy Musgrave and Richard Musgrave
2) Head John G. “Public Goods and Multi level Government” in Public Finance, Planning and Economic Development ed.by David L.W.
3) Diagrammatic Exposition of the Theory of Public Expenditures” by P.A.Samuelson.

2.10 Additional Readings

Public Economics by R.K.Lekhi & Joginder Singh
Public Finance by H.L.Bhatia
Public Finance in Theory and Practice by S.K.Singh

UNIT-03: Public Choice

Structure

3.0 Learning Objectives

After going through this unit, the learners will be able to understand

- The role of government in organized society
- The plausible role of government in the context of public choice
- The need for provisioning of public goods through the state

3.1 Introduction

Kenneth Arrow developed the "Social Choice Theory" in 1950s. He observed that in order to evaluate. the economic well-being of a society, it is essential to take into account the value of its individual members. Further, Arrow emphasises on the existence of a mechanism

- to facilitate the individuals to express their preferences
- the need and importance of collating the information pertaining to their preferences.

He highlighted that a fair and efficient voting system is a precondition for the collective decision-making process. According to Arrow, in the presence of a minimum of two members and three alternative choice options – it is impossible to design a social welfare function satisfying all necessary conditions

3.2 Role of Government in Organized Society

"What is the specific role of the government?"- is indeed a fundamental question faced by the countries across the world. Adam Smith in his Wealth of Nations (1776) restricted the role of government to the "police function" and the "defense function" leaving the key outcomes of other key economic functions such as allocation, distribution and stabilizations to be determined by the "invisible hand" in line with the concept of "Laissez-faire economy". In fact, it is not hard to notice Musgrave (1959) the ever-changing role of the governments across the state since then.

The economic role of the government is generally defined based on the nature of the economy [i.e., capitalist, socialist or mixed economy]. According to the three essential economic functions/objectives of the government includes allocation, distribution (efficient utilization of scarce economic resources) and stabilization (ensuring price stability, sound balance of payment along with maximum social welfare) functions. Further, to achieve these objectives the government has two broad instruments – the fiscal policy and the monetary policy at its disposal.

Major economic role of the Government

- **To fill in the gap in the provisioning of goods and services where Market Fails:**

  The learners have already discussed, why markets fail to achieve the efficient outcomes in unit 2 of this block. As discussed in unit 2 the reasons behind the market failure could be ascribed to factors like ***incomplete information***, ***imperfect markets***, ***presence of public goods characteristics in certain goods and services*** *and* ***the presence of externalities in certain goods and services***. These factors call for government interventions and the need for the public provisioning of such goods and services (section 3.4 of this unit has more details).

- **Inequitable income & wealth distribution between individuals, between regions & between states:**

  The presence of Inequitable and unjust income and wealth distributions in the society is yet another factor that requires the government to intervene.

  For example, the initial distribution of factor endowment results in inequitable distributions of income and wealth in the society. There is no denial of the fact that the government has to play a critical role through appropriate policy adjustments and try to bring in equitable distribution of income and wealth among the residents of the country and across regions within the country. This is where the government play its "***redistributive role***". In order to achieve equitable distribution of assets and income government undertakes the tax and transfer (through subsidy) mechanism and attempts to reduce the skewness in income and wealth (assets) distribution. The "Lorenz curve", "concentration ratio", "frequency income distribution curve" are some of the popular techniques adopted for measuring inequalities of income and wealth. These are also useful techniques to evaluate the success of various redistributive policy majors adopted by the government.

The need for a stable economic Growth

Apart from the growth being equitable, it is essential that it should be stable. Government often invests to induce growth in the economy (measured in terms of growth in national income). It is worth mentioning here that the "growth objective" of a nation need not necessarily be compatible with its objective of ensuring "**economic stability**". Economic growth may accompany with an increase in the general price level. Situations like these call for government policy interventions. Such interventions may be through the use of fiscal policy or monetary policy or an appropriate mixture of both these policies.

Thus, the role of government is to ensure inclusive and stable growth leading to higher real income and higher living standard.

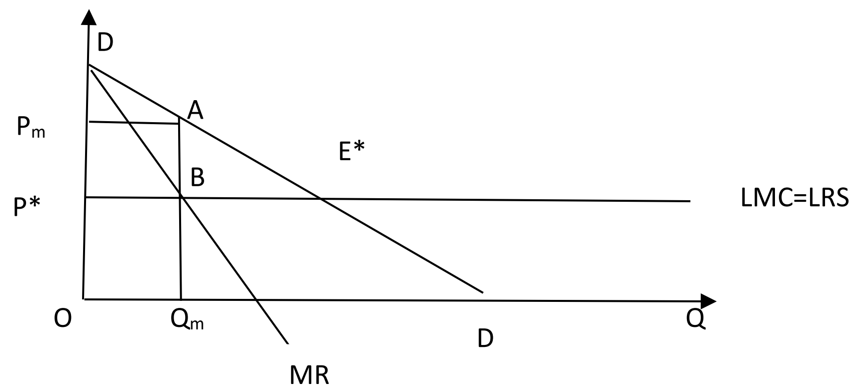
3.3 Public Choice & the role and functions of Government

Taxation and public spending of the Government is at the center of Public Choice theory. James Buchanan, Gordon Tullock are the key contributors to the theory of the public choice theory. Public choice is a way of economic and political **decision-making** by different economic agents. Public choice includes issues regarding public administration, property rights, the election process and behaviour of the voters, the firm's behaviour among others.

- to maximise self-interest often if not always is the primary motive of economic agents.
- In this context the public choice theory focuses on instances of government failure in ensuring desired result.
- Such market failures are often ascribed to the Rent Seeking behaviour of economic agents

One example of the act of rent seeking by a monopolist firm as provided in Sen (2007) is that, "the possibility of earning monopoly profits can lead a firm to spend real resources to earn monopoly power. For example, a firm can hire lobbyists, lawyers and economists in an attempt to persuade legislators to restrict entry into the industry". Behaviour of this nature is known as "rent seeking behaviour". Further as highlighted in Sen (2007) If there are a number of firms competing to become the monopolist in a market, they might spend as much as the producer surplus on such activities. So, the deadweight loss under monopoly can be higher than the area ABE* as shown in figure 3.1 below.

Figure 3.1 Monopoly and Deadweight Loss



Thus, the situation calls for government interventions either directly or through a regulator to ensure that such practices by monopolists with mollified intensions are prevented.

3.4 The need for provisioning of Public Goods through the State

The Market failure (due to presence of externalities) and the free rider problem (mainly due to the non-excludable property of public goods) require the state to provide the public goods. Market fails in the presence of externality and/or in the case where the goods have public goods characteristics i.e., non-excludability and non-rivalries.

.

The presence of externality is the impact of economic transactions on the agents not involved in the transactions which results in market failure. This requires government interventions in the form of assigning property rights to the economic agents and developing mechanism for internalizing the externality.

At the same time, in the case of free rider problem

a) some individuals may consume more than their fair share of the goods.
b) They may pay less than their fair share of the cost of the public good.

c) They may enjoy the public goods without making any corresponding payments.

In fact, the provisioning of a goods is impossible if everyone free-ride .This requires government intervention and a rationale for public policy involving the state in the provisioning of public goods.

3.5 Summary

Public goods and the externalities inherent in certain economic activities provide a rationale for the allocation function to be assigned to the government and demands formulation of suitable public policy. As the Public goods exhibit the features of non-excludability and non-rivalry, in the provisioning of public goods, private market fails in utilizing resources efficiently. Further, Public goods are also subject to the 'free-rider' problem, in which people who do not pay for the good but may continue to access it. The result is - under-production, overconsumption and degradation of goods. These factors make the government interventions essential and relevant for the economy.

The problem then is how the government should determine: In what quantity such goods are to be produced? The difficulty lies in deciding the type and quality of the public goods that should be supplied and how much a particular consumer should be asked to pay for the same. Individuals have no reason to reveal to the government how highly they value the public service. Therefore, there is a need for provisioning of Public Goods through the State. The discussion under the role of Government in Organized Society, includes the allocation function, the distribution function and the stabilization function. Further, public choice and the related concept of rent seeking behaviour is also discussed in this unit.

3.6 Key Words

Rent Seeking Behaviour	The intention or action of an entity to gain wealth in the absence of any reciprocal contribution to the productivity.
'Free-rider' Problem	This is a situation where some individuals in such a position that either they can consume more than their fair share of the shared resources or pay less amount (or even no amount) for the goods or service in comparison to the fair share of the cost of the goods or service under consideration.
Externalities	The actions of one or a group of economic agents affecting another economic agent or group of economic agents who are not party to the transactions.
Public Goods	The goods with the properties of non-excludability and non-rivalries.
Laissez-faire economy	An economy where the role of government is confined to the "police function" and the "defense function" leaving the outcomes of the other key economic functions such as allocation, distribution and stabilizations to be determined by the "invisible hand"
Public choice	Public choice is a way of economic and political **decision-making** by different economic agents. Public choice includes issues regarding public administration, property rights, the election process and behaviour of the voters, the firm's behaviour among others.

3.7 Model Questions

1. What is public choice theory?
2. What do you mean by rent seeking behaviour? Discuss how government intervention can provide solution to these problems.

3. Discuss the need for provisioning of Public Goods through the State.

3.8 References

Wealth of Nations (1776), An Inquiry into the Nature and Causes of. The Wealth of Nations.

Musgrave, R.A. (1959) The Theory of Public Finance: A Study in Public Economy. McGraw-Hill

Sen Anindya (2007), Microeconomics: theory and applications, Oxford University Press, New Delhi,

UNIT-04: Externalities and Market Inefficiencies

Structure

4.0. Learning Objectives

After going through this unit, the learners would be able to understand

- Why Market Fails?
- What are the role of Government when market fails due to externality?
- How Negative Externalities leads to Market Failure?
- What could be the Government policy to correct negative externality?
- What could be the Government policy to correct positive externality?
- Coase theorem and how it is related to the concept of externalities.

4.1. Introduction

Externality effects the third party not involved in the transactions. In fact the production and /or consumption decision of one or more economic agents influence the consumption and production decisions of other economic agents who are not even a party to the transaction. This phenomenon is known as externalities in economics.

These externalities could be positive externality or negative externality depending upon whether, the impact on the third party is positive or negative. Thus, if the consumption decision of one or more economic agents has positive (negative) impact on the third party then we say that there is positive (negative) externality.

In other words, Externalities are side effects of economic activities that affect parties not directly involved in the transaction. They can be positive (beneficial) or negative (harmful). For instance, pollution from a factory is a negative externality, while the creation of public art near a commercial area can be a positive externality.

These externalities often cause market failure and hence call for government interventions for settlement.

4.2 Market Failure and Functions of Government

Market failure is also a result of externalities in consumption and production. Externalities are market flaws when there is no price for a good or a bad thing. Externalities influence resource allocation, which results in sub-Pareto optimum consumption or output.

When externalities are present, the social costs (including private costs plus external costs) and social benefits (including private benefits plus external benefits) diverge from private costs and benefits. In other words, the full impact of an economic activity on society isn't captured by the costs and benefits borne by the individuals or firms involved in the activity. In a perfectly competitive market, prices are determined by the intersection of supply and demand. This generally results in the allocation of resources where private marginal cost (PMC) equals the price, which is also equal to the private marginal benefit for consumers. Pareto optimality is a situation in which resources are allocated in the most efficient way such that no individual can be made better off without making someone else worse off. Perfect competition assumes that all costs and benefits are internalized by market participants. In the presence of externalities, this assumption doesn't hold true. For negative externalities (like pollution), firms may not consider the full environmental cost when determining their production levels, resulting in overproduction and inefficiency. For positive externalities (like education), individuals might not account for the societal benefits, leading to underconsumption.

However, when externalities are present and social costs and benefits diverge from private costs and benefits, the market equilibrium achieved under perfect competition does not lead to Pareto optimality.

This divergence means that the equilibrium achieved under perfect competition won't result in Pareto optimality. In such cases, government intervention through regulations, taxes, subsidies, or other policy measures might be necessary to internalize externalities and move closer to an optimal allocation of resources.

4.3 Negative Externalities and Market Failure

Negative externalities and market failure are concepts in economics that describe situations where the functioning of a free market leads to inefficient outcomes. Let us now discuss the following three:

a) Negative Externalities
b) Market Failure
c) Relationship between Negative Externalities and Market Failure

Negative Externalities:

As discussed earlier, a negative externality occurs when the actions of a producer or consumer impose costs on third parties who are not involved in the transaction. In other words, the negative side effects of an economic activity spill over to people or entities who were not part of the original decision. This can result in a situation where the market price does not reflect the full social cost of the activity, leading to overproduction or overconsumption of the good or service causing the externality. Pollution from a factory that negatively affects the air quality and health of the surrounding community is an example of negative externality. The factory might not take into account the health costs imposed on the community when deciding its level of production.

Market Failure

Market failure occurs when a free market fails to allocate resources efficiently. In a perfectly competitive market, resources are allocated based on supply and demand, leading to optimal outcomes. However, market failures can disrupt this efficiency, resulting in a misallocation of resources.

Learners may note here that there are several types of market failures, and negative externalities are just one example. Other types include positive externalities (where benefits spill over to third parties), asymmetric information (when one party in a transaction has more information than the other), public goods (goods that are non-excludable and non-rivalrous), and monopolies (a single seller controlling a market).

Relationship between Negative Externalities and Market Failure

Negative externalities often lead to market failure. When negative externalities are present, the market equilibrium does not align with the socially optimal equilibrium. The market price fails to account for the external costs, and as a result, there is overproduction or overconsumption of the product causing the externality. This creates inefficiency because the total social cost is greater than what is reflected in the market price.

To address market failures caused by negative externalities, governments and policymakers might intervene through various means. They can impose taxes on the activity generating the negative externality (like a carbon tax on pollution), establish regulations or standards to limit the externality (such as emission standards), or provide incentives for adopting cleaner technologies.

4.4 Government policy to correct negative externality

Negative externalities lead to market failures by causing the market to produce outcomes that are not socially optimal. Addressing these failures often requires government intervention to internalize the external costs and bring about a more efficient allocation of resources.

In fact, to address these market failures, government intervention becomes necessary. The government's role in this context is to internalize the external costs. This can be achieved through policies like taxes on the external cost-producing activity (e.g., carbon taxes on pollution), regulations that limit the negative externalities (e.g., emission standards) and the like.

By internalizing the external costs, the market can arrive at a more efficient allocation of resources. When individuals and firms consider the full costs of their actions, they will produce and consume the right amount of the good or service that maximizes overall societal welfare. Here it is important to note that while government intervention can mitigate negative externalities, the effectiveness of these interventions depends on accurate information, well-designed policies, and the ability to enforce them without creating other unintended consequences.

4.5 Government policy to correct positive externality

When someone or something makes a positive difference for those who aren't directly involved in the transaction or activity, that is what is known as a positive externality. In this situation, the market under allocates resources since it does not take into account all of the social benefits.

Governments can enact a number of measures to remedy the market failure and promote the creation or consumption of goods and services that produce positive externalities in order to address positive externalities. Several typical policy measures to deal with positive externalities are there and the major among them are as below:

i. Subsidies
ii. Direct provision
iii. Grants and Funding
iv. Regulations and Standards
v. Information and Awareness Campaigns
vi. Tradable Permits
vii. Collaboration with Private Sector

Subsidies

Producers or consumers of goods and services that have positive externalities may receive subsidies from the government. With subsidies, the cost of production or consumption is effectively reduced, increasing the activity's allure and resulting in more output or consumption. For instance, the government might provide financial assistance to farmers that use eco-friendly methods that are advantageous to the larger ecosystem. Use of solar energy, wind energy etc. are therefore subsidized.

Direct Provision

In some circumstances, the government might decide to actively offer products or services that produce advantageous externalities. Public parks, museums, and educational institutions are a few examples of products and services that have advantageous externalities. The government ensures that everyone may take advantage of these services by funding and offering them, as opposed to depending exclusively on market forces.

Grants and Funding

Governments can allocate grants or funding to research, development, and projects that generate positive externalities. This encourages innovation and the creation of new technologies or processes that have positive impacts on society. For instance, funding for research in renewable energy technologies can lead to positive spillover effects in terms of reduced pollution and environmental preservation.

Regulations and Standards

Governments have the power to enact laws and norms that encourage economic activity. Environmental rules, for instance, might encourage businesses to adopt cleaner production techniques, which will reduce pollution and improve society as a whole.

Information and Awareness Campaigns

Sometimes, positive externalities arise due to lack of information. Governments can initiate awareness campaigns to educate individuals and businesses about the benefits of certain activities. This can lead to increased adoption of behaviors that create positive externalities, such as getting vaccinated to prevent the spread of diseases.

Tradable Permits

Tradable permits can be used to address positive externalities indirectly. For instance, in the context of carbon emissions, the government can issue tradable permits that allow companies to emit a certain amount of carbon dioxide. Companies that emit less can sell their unused permits to companies that emit more. This system creates a market for reducing emissions and generates positive spillover effects for the environment.

Collaboration with Private Sector

To promote activities with advantageous externalities, governments can work with private companies and groups. Projects that are beneficial to society as a whole can be developed and implemented more easily through public-private partnerships.

When developing policies, it's crucial for governments to carefully take into account the unique circumstances and traits of the positive externality. The intention is to align incentives in such a way as to promote the production or consumption of goods and services that produce favorable externalities, which will ultimately result in more effective resource allocation and enhanced social well-being.

4.6 Coase Theorem and Externalities.

Coase Theorem is a theory of economics which deals with the problem of externalities, which are the unintentional consequences of economic activity that impact parties not directly associated with such activity. This theory is developed by Ronald Coase in 1960. Market inefficiencies can result from externalities, which can either be useful or harmful.

The Coase Theorem asserts that parties affected by externalities can bargain and come to efficient solutions on their own, regardless of how the initial property rights are assigned, providing property rights are clearly stated and transaction costs are low. In other words, even if externalities exist, the market will find a way to internalize them and arrive at the best solution if parties can negotiate and achieve agreements without incurring major expenses.

Coase Theorem: An Example

Here's a simplified example to illustrate the Coase Theorem in the context of negative externalities:

Situation: A factory emits pollution that harms a nearby farm's crops.
Initial Outcome: The farm's crop yield decreases due to pollution, causing financial losses.

Coasean Solution:

If transaction costs are low and property rights are well-defined, the farmer and the factory owner can negotiate. The farmer might agree to accept compensation from the factory owner to tolerate the pollution, or the factory owner might invest in pollution-reducing technology to minimize the harm.

Result: Either way, an agreement is reached that benefits both parties. The pollution is reduced, and the farm's losses are compensated.

Coase Theorem: Assumptions and conditions for its applicability:

Clearly Defined Property Rights:

Parties involved must have well-defined and enforceable property rights, which help establish who has the right to do what with a given resource.

Low Transaction Costs:

The costs associated with negotiating, reaching agreements, and enforcing contracts should be minimal. If transaction costs are too high, parties may find it challenging to come to an efficient agreement.

No Market Power:

The Coase Theorem assumes that parties have equal bargaining power and can negotiate freely. In reality, power imbalances could affect the negotiation process.

Full Information:

Parties should have complete information about the costs, benefits, and consequences of their actions and the externalities involved.

4.7 Summary

To sum up, the discussions in this unit is centered around (i) Why Market Fails? (ii) What are the key functions of Government when market fails due to externality? (iii) How Negative Externalities leads to Market Failure? (iv) What could be the Government policy deal with negative externality and positive externality? Further, this unit also discuss the established relationship between Coase theorem and the concept of externalities, the need for Government interventions along with the ways in which the government intervein to address the problem of externalities.

4.8 Key Words

Externality	The unintended consequences or impacts of an economic activity on parties that are not directly involved in that activity.
Transaction Costs	
Positive Externality	A positive externality, is a situation where the benefits spill over to third parties who are not part of the initial transaction.
Negative Externality	It is the side effect of a transaction or action that harms individuals or the environment without compensation. Negative externalities can lead to market inefficiencies and a misallocation of resources.

4.9 Model Questions

1. Discuss how the problem of negative externality can be addressed using the framework of Coase Theorem.
2. What is externality? Distinguish between positive and negative externality.
3. What do you mean by mean by market failure? Why the market fails in the presence of externality.

4.10 References

Coase R H (1960), "The Problem of social Cost", The Journal of Law and Economics, Volume 3 (October 1960).

Sen Anindya (2007), Microeconomics: theory and applications, Oxford University Press, New Delhi,

BLOCK 2: Fiscal Federalism, Public Receipts and Theories of Taxation

UNIT 5: Fiscal Federalism

Structure

5.0 Learning Outcomes

After going through this unit, the readers shall be able to

i. understand the definition, layers and theories of fiscal federalism.
ii. graspe the salient features of fiscal federalism and its challenges
iii. the ongoing challenges of fiscal federalism and its recent development

5.1 Introduction

Fiscal federalism as different from political federalism refers to assignment of functions to different layers of the government, separation of sources of revenue and institutions of federal transfer to neutralise the non-correspondence between needs and fiscal capacity strictly in accordance with economic criteria. Reality represents aberrations of efficiency norms as social, political, cultural and religious force mould economic decisions and the end product is political federalism or federal constitution.

Assignment of Functions

he fiscal economists aim at achieving efficiency in functioning of the governments and assign functions with objective in view.Fiscal federalism combines the best advantages of two polar models, a completely centralised and a completely decentralised systems between which it is poised. In a centralised model, the following responsibilities are optimally discharged by the government. Firstly, stabilisation policy is best performed by the central government because it alone has the power to control the relevant macro variables and switch the economy to the lines. Secondly, effective income redistribution is possible only at the national level. Thirdly, economic development must be prime responsibility of the central government. Finally, the national government must provide public goods like foreign affairs and defence. On the other hand, in a decentralised model, all these functions cannot be efficiently performed. But, there are other advantages of decentralisation such as firstly, decentralisation of government permits greater adoption of the provision of public goods to the preferences of the voters/consumers. Tiebout effect i.e. “Voting foot” occurs when individuals migrate to the localities that provide the mixture of activities and taxes they prefer.This leads to further adoption of the levels of government activity to the varying preferences of the subsets of the population. Secondly, as pointed out by J.F.Due and Friedlaender,”Decentralisation allows more effective decision making.It also facilitates greater popular control over the manner in which services are provided”.W.E.Oates opines, “What is clearly desirable is a form of government that combines the advantages of these two polar forms and avoids the most serious shortcomings of each; a federal organisation of government meets this end”. It on the one hand retains the advantages of decentralisation of allocating resources in accordance with preferences of the individuals and on the other hand, centrally administers functions of distribution, stabilisation and growth.

Fiscal Federalism: An Optimal Form of Government

W.E.Oates considers, “Fiscal federalism the optimal form of government as it performs four important functions like allocation, redistribution, stabilisation and development.” As economic development, stability and redistribution are the exclusive preserve of the central government in the economic model, allocation is under the sole authority of the state and local government. There are, however services like defence and foreign affairs which once provided are provided for all the citizens of the country. These public goods are characterised by complete impossibility of the exclusion principle and as such have to be provided by the central government.

5.2 Theories of Fiscal Federalism

The theoretical developments of fiscal federalism can be classified in to two categories namely (i.) first generation theories and (ii) second generation theories. The first generation theories also known as traditional theories assume a benevolent state and the trade- off is presented in terms of efficiency gains from meeting diversified preferences and inability to internalise the spill overs at the sub-national. The second generation theories draw on developments in the theory of public choice and industrial organisation and the trade- off is in terms of better "accountability "of decentralised levels versus better coordination of policies to internalise spill over (Seabright 1996; Oates,2005). In the second generation theories, there are three different strands which analyse fiscal federalism namely

(i) the principal – agent framework;

(ii) problems arising from the soft budget constraints and deriving motivation from the fiscal crisis precipitated by exploitation of " fiscal commons" leading to perverse behaviour of sun-national governments, particularly in Latin America and

(iii) Outcomes from "yardstick competition" under the rubric of "competitive federalism". These developments help to identify some important features of efficient fiscal federalism which are discussed below.

i. Clarity in assignment system; Clarity in assignment system is a most important pre-conditions for efficient fiscal federalism. This indicates that not only the assignment system be clear, but also there should be mechanism to resolve the problem of overlapping. It is also important regarding assignment of adequate revenue powers to sub-national governments to forge a strong link between revenue and expenditures at the margin. This is necessary for having efficiency and accountability on the one hand and to ensure a hard budget constraints on the other.

ii. Transfer system; the transfer system should not only solve the problem of imbalance between revenue and expenditure powers, but also does not provide the incentive to "raid the fiscal commons". Ensuring proper incentive structure in the transfer system is critical to preventing the "soft budget constraints". Besides that equalisation transfers should be designed to compensate the public services provided by sub-national governments, the benefit of which spill over the jurisdictions.

iii. Common market; the large common market is another characteristic feature of a multi-level fiscal system. Ensuring a common market is at the heart of creating dynamism in fiscal federalism. Such impediments can be posed by policies restricting the movement of labour, capital, and commodities. Literature on market promoting federalism reveals that it is important to avoid "soft budget constraints" at both national and sub-national levels. It is also essential to have well designed bankruptcy laws that specify the nature of fiscal crisis and the ways it needs to be handled.

iv. Ensuring competition; Intergovernmental competition can lead to efficiency gains in public service provision; it can also motivate innovations and productivity increases in public service delivery. However, to reap the gains, it is important to ensure that there is a measure of competitive equality and predatory competition does not take place. Unequal competition be destabilising and can, in extreme case break up the federation. This is particularly important in the context of globalisation as the states with more developed markets and infrastructure can reap higher benefits from access to domestic and international markets and grows faster than those with less developed markets and infrastructure.

While these are the general principles, the reform of institutions in different countries will take account of their specific characteristic. As stated by Oates, " While the existing literature on fiscal federalism can provide some general guidance,.....my sense is that most of us working in the field feel more than a little uneasy when proffering advice on many of the decisions that must be made on vertical fiscal and political structure. We have much to learn. "We must bear in mind that to achieve the desired features, the institutional reforms shall bring out some tangible results only in the short and medium period. Moreover, even when most of the desirable characteristics are achieved, there are important issues of coordinated implementation of reforms, be it in the area of containing deficits and debt, tax reforms in public service delivery. In many federal countries including India, these are to be addressed through providing incentives to states.

5.3 Features of Fiscal Federalism

Role of States in Indian Economy

In Indian fiscal federalism in spite of heavy centripetal, constitution assigns a predominant role to the States in the provision of social services and co-equal responsibility in the provision of physical infrastructure. For example, though the States have a predominant role in the field of agriculture & irrigation, there are still some serious issues to be resolved by creating infrastructure for agriculture extension, transportation, storage and marketing. A number of irrigation projects continue to grow weak at various stages due to lack of resources to complete them. In the energy sector, which happens to be a concurrent responsibility, investments by States is utterly neglected mainly due to poor operative inefficiency. Likewise, expenditure made by States on maintenance of roads, & bridges and creation of State Highways is fully neglected. As it is rightly said that communication is the carrier of civilisation. Unless some social overheads capitals are built by States, inclusive development is difficult to achieve in India. The union government has introduced several schemes involving specific purpose transferrin the areas in States' domain and has made adequate investments in the field concurrent responsibility.

Impact of Political Developments

The increased involvement of the Centre in States' domains and subsequent Central investments in the concurrent subjects is in part, is the reflection of political developments in the country. The emergence of coalition governments at the centre, regional parties in power in the States and some regional parties being pivotal members of the coalition has changed objective function of the political parties in a substantial manner. The decline in the time horizon of politicians and parties has only added to the focus of governments on short term gains rather than focussing on longer term development agenda. At the state level, because of political development, proliferation of explicit and implicit subsidies has been a major problem in Indian fiscal federalism. In this connection, the study made by Mundle and Rao points out, "The consequences of these subsidies have not only been to increase the fiscal deficits but also to distort the allocation of resources in unintended ways."

Resolving Horizontal Imbalance

High degree of horizontal fiscal imbalance is another characteristic feature of Indian fiscal federalism. The horizontal fiscal imbalance occurs when subnational governments do not have same capabilities for raising funds from their tax bases to provide public services the per capita net state domestic product (NSDP) in the richest State Goa in 2018-19 at current prices was over 7.18 times that of poorest State (Bihar) even when large States are considered. In this environment, fully offsetting the fiscal disabilities of poor states would require massive transfers to be made to them, which could significantly soften their budget constraints. Given the large differences in fiscal capabilities of the State, there are wide variations in the standard of infrastructure and services provided across States, depending on their fiscal capability.

Co-ordinating Tax Policies in Fiscal Federalism

Co-ordinating tax policies is another essential feature of Indian fiscal federalism. The principle of fiscal federalism requires linking of revenue-expenditure decisions of sub-national governments at the margin. Usually, the sub-national governments do not consider the overall interest of the economy while exercising their tax pores and this results in significant inefficacies. It is also necessary that sub-national taxes do not entail to tax burden to non-residents. Sometimes, State may indulge in unstable competition by reducing the tax rates to attract investments or divert trade in their favour. In India the Constitution divides the tax powers based on the principle of separation. The tax powers are listed either in the Union or the State list, but not on the Concurrent list. Although, this was intended to prevent overlapping in tax payers, in effect, the interdependence of tax bases on the Centre and State could not be avoided. Coordinated calibration of tax reforms therefore is an extremely important to evolve a competitive tax system in the country.

Ensuring a Stable Macro Economy

The Indian fiscal arrangements instituted **in the** constitution recognise the importance of ensuring a stable macro economy and has constrained the states from having resource to unlimited borrowing powers. Article 293 of the constitution empowers the state governments to borrow from the domestic market, but if a state is indebted to the centre, to seek permission of the latter to borrow. Union Finance Ministry, NITI Aayog and the Reserve Bank of India together determine the quantum of market borrowing to be allowed to each state government every year. In spite of the above restriction, there are several ways in which the States have been able to soften their budget constraints. The problem with borrowing from various sources is not one of softening the budget constraints alone. There is a larger issue of co-ordinating the calibration of macroeconomic stabilisation between the centre and the states. This requires exercising overall control of deficits and debt of the states at suitable level. It is pertinent to note here that an important precondition for successful market promoting federalism is the prevalence of hard budget constraints at the sub-national levels

5.4 Fiscal Reforms in India

The fiscal reforms in India can be broadly divided in to two categories namely

i. Calibrating Reforms and
ii. Incentivising Reforms

Calibrating Reforms

As the interests and incentives of different levels of governments do not coincide in Indian fiscal federalism, calibrating reforms has an important role to play. The " layer cake " perspective of fiscal federalism attempts to assign macroeconomic stabilisation and redistribution functions predominantly to the central government and a significant role to the sub-national governments in allocation But in practice, as the actions of one level of government affects the others. Calibrating fiscal reforms put emphasis in proper coordination to ensure that the central and state governments do not work at cross purposes As the states look at reform issue from the perspective of their own electorate and not from the view point of nation, there can be significant differences in the perspectives between the centre and states in terms of both speed and content of reforms. Similarly in case of anti-poverty programmes, the information pertaining to who the poor are, where do they reside and why they are poor is available locally and therefore, the governments closest to the poor are ones are most suited to implement these policies. Hence, the calibrating reforms highlight the underline areas requiring inter-governmental coordination to ensure a stable macroeconomic environment.

Incentivising Reforms

The incentivising reforms explains the central government by providing incentives to states to carry out the fiscal reforms in India in terms of their of their efficiency. In this connection, it is worth mentioning that the centre examines the effectiveness of the incentives provided to states for improvement of fiscal management, pertaining to reducing their fiscal and revenue deficit. The incentive based reforms in irrigation and power sectors were introduced by central government directly, the reforms to draw the roadmap [for fiscal coordination, incentive the adoption of GST and a variety of other grants given in diverse areas have been based on the recommendations of the Finance Commission. The incentivising reforms can be divided in to following categories

i) Incentive Based Reforms Directly Introduced by the Central Government.

(a) Accelerated Irrigation Benefit Programme

Accelerated Irrigation Benefit Programme (AIBP) was started by the central government to provide funds to facilitate completion of ongoing large and medium irrigation projects that could be completed within four years so that the benefits are availed of relatively quickly.

(b)Accelerated Power Development and Reform Programme (APDRP);

Accelerated Power Development and Reform Programme is a central government initiative to provide the state level power utilities adequate funds for undertaking the necessary measures to strengthen the power transmission and distribution system through up gradation of worn-out assets, reduced power loses, improve commercial viability with universal metering and pricing and such other steps.

(c) Urban Reforms; Jawaharlal Nehru Urban Renewal Mission (JnNURM) is a central government programme for urban development with two broad sets of objectives-I. Improvement in the coverage and supply of urban infrastructure along with rejuvenation of urban local bodies and ii. Tackling the problem of urban slums through resettlement and other measures and providing basic services to the urban poor.

(d)Education Sector Reforms; In the area of elementary education, Sarva Shikshya Abhijan (SSA) or "Education for All" programme has been a large central government intervention to speed up full coverage of children aged 6-14. The assistance is formally demand- driven in nature. The assistance is being given as matching grant programme starting with 85-15, with state contribution gradually rising over a period of ten years to 50 per cent.

(e)Health Sector Reforms; National Rural Health Mission (NRHM) is the major central government programme in the area of health, primarily the domain of the states. It was started in 2005 by putting together a number of disease specific programmes. This programme began as a fully grants-based assistance system, changing in to 85:15 (centre-state) during 11th pan to at present 60:40 (centre-state)

ii) Reforms Undertaken on the Basis of the Recommendation of Finance Commission

(a) **Tax Reforms ;** As per the recommendation of the 14th Finance Commission, firstly, the States will have a significant and genuine revenue autonomy, with the enhancement of their share in central taxes to 42% from 32% recommended by 13th Finance Commission. Secondly, there would be a drastic reduction in Centre's discretionary control on fiscal transfers to the States. However, recently, the 15th Finance Commission recommended the States' share for the period 2021-26 of central taxes as 41%, which is less than 42% share recommended by 14th Finance Commission for the period 2015-16. Similarly, consequent upon the 73th and 74th amendment of the giving additional grants for local bodies as a measure to augment the consolidated constitution and insertion of clause (3) to Article 280, the Finance Commission started funds of States to supplement the resources of local bodies.

iii) Fiscal Restructuring and Consolidation Reforms

(a) Recommendations of the 13th Finance Commission(2007-2017)

- Emphasized the need for fiscal discipline and debt consolidation.
- Recommended measures for enhancing tax revenue deficits.
- Suggested reforms in the expenditure pattern of the central and state governments.
- Proposed fiscal consolidation targets and guidelines

(b) Recommendation of the 14^{th} Finance Commission(2015-2020)

- Increased the share of tax devolution to states from the central government.
- Raised the devolution of funds from 32% to 42% of the divisible pool.
- Strengthened fiscal federalism by giving states greater autonomy in resource allocation.
- Introduced a formula based approach for devolving funds, taking in to account factors like
- Population, income difference and fiscal discipline

(c) Recommendation of 15^{th} Finance Commission (2020-2025)

- Continued the increased devolution of funds to states at 42%
- Recommended the grant-in-aid for local governments and specific purposes.
- Focused on sustainable development, fiscal stability and balanced regional growth.

  Introduced performance based incentives for states in key sectors like health, education and agriculture.

  Recommended the creation of a non-lapsable fund for defence and internal security.

These Finance Commissions play a crucial role in providing recommendations and guidelines for fiscal management, revenue sharing and resource allocation between central government and state governments, ensuring a balanced and efficient fiscal structure in the country.

The experience of incentivising reforms at the state level cannot be called as unqualified success by any means, nor is it a total failure. Though the elements of incentives have succeeded, it has not been able to achieve in Toto. This does not mean that the attempts should be given up. The following points should be borne in mind while introducing the so called incentivising reforms;

i) The central government should follow what it preaches
ii) The reforms should have an impact on the margin of the targeted variables
iii) Incentives should be strong enough for the state to adopt them to ensure hard budget constraints

5.5 Fiscal Federalism and its Challenges

The Indian fiscal federalism is undergoing severe strain or challenges at present. Factors like abolition of the Planning Commission, introduction of controversial Goods & Service Tax regime and formulation of Terms of Reference of the 15th Finance Commission have led to emergence of following challenges in fiscal federalism.

1. Vertical Fiscal Imbalance; One of the major challenges in the Indian fiscal federalism is vertical imbalance between the central and states governments. The central government retains a large share of tax revenue while, the states have limited financial resources. This imbalance restricts the fiscal autonomy of the states and affects their ability to meet the growing demands of their population.

2. Inter-States Disparities; India is a diverse country with significant inter-states disparities in terms of economic development and resource availability. Some states are economically more prosperous while others lag behind. This poses a challenge to fiscal federalism as it requires a fair distribution of resources and financial transfers to address the disparities and promote balanced regional development.

3. Goods and Service Taxes (GST) Implementation. The introduction of GST in India was primarily aimed at creating a uniform tax system and enhancing fiscal federalism. However, its implementation has faced challenges in terms of revenue sharing between the central and state governments. The states have argued that their revenue autonomy has been compromised leading to fiscal stress

4. Fragmented Inter- governmental Transfer: The system of inter-governmental transfers in India is fragmented and lacks transparency. The formula for distribution of funds between the central and state governments is often perceived as arbitrary, leading to disputes and tension. The lack of clarity and predictability in transfer mechanisms affects the planning and implementation of state- level policies and programmes.

5. Inadequate Revenue Generation: Both central and state governments face challenges in generating sufficient revenue to meet their expenditure requirements. The tax base in India is relatively narrow and the tax GDP ratio is low compared to other countries. This limits the fiscal capacity of governments at both levels and restricts their ability to implement developmental programmes effectively.

Recent development:

Over the years, the following recent developments have occurred in the field of Indian fiscal federalism.

1. Increased Devolution to States; The successive Finance Commissions have been increasing the share of central tax revenues devolved to the states. This devolution of funds empowers the states to meet their expenditures obligations and provide them with greater financial autonmy. The Fourteenth Finance Commission in particular significantly increased the share of the states in central taxes from 32% to 42%

2. Cooperative Federalism; The concept of Cooperative Federalism has been introduced recently which emphasises on collaboration, cooperation, formulation and improvement of fiscal relationship between the central & state governments leading to more balanced and efficient fiscal federalism in India

3 NITI Aayog: The National Institution for Transforming India (NITI Aayog) was introduced in 2015 in place of Planning Commission, which serves as a think tank and policy advisory body for **p***romoting cooperative federation by fostering collaborative and participation decision-making* Outcomes

4. Fiscal Responsibility and Budget Management Act (FRBM) Act; The FRBM Act was introduced way back in 2003 to promote fiscal discipline and reduce fiscal deficit of the central and state governments. The act sets targets for reducing fiscal deficits and mandates the publication of fiscal policy statements. It aims at ensuring long run macroeconomic stability and sustainability in fiscal management.

5.6 Summary

Fiscal federalism refers to distribution of fiscal powers and responsibilities between different layers of governments namely central, states and local bodies over union, state and concurrent lists. It is an optimum form of government best suited to our country...

While discussing the features of fiscal federalism in India, among others we have come across that there is an issue of coordinating the calibration of macroeconomic stabilisation between the centre and state governments. In this connection, efforts are made to highlight some key reforms undertaken to strengthen and improve the fiscal federalism in India. At the end, we also highlight the several challenges faced by India's fiscal federalism and certain recent developments.

5.7 Keywords

Fiscal federalism	Fiscal federalism refers to division of responsibilities in respect of taxation and expenditure among the different level of government namely the centre, the states and the local bodies.
Cooperative Federalism	Cooperative federalism explains the relationship between centre and state governments in the matter of legislation, administration and finance.
NITI Aayog	National Institute of Transforming India was established in 2015 in place of Planning Commission.
Horizontal Imbalance	Horizontal Imbalance occurs when sub-national governments do not have same capacity for raising funds from their tax bases.
Vertical Imbalance	Vertical Imbalance takes place between union and state governments with regards to sharing of taxes.
Calibrating Reforms	Reforms that ensure proper co-ordination to ensure that union and state governments do not work at cross purposes
Incentivising Reforms	It explains the efforts of central government by providing incentives to states to carry out fiscal reforms in terms of their efficiency.
Finance Commission	It is an independent constitutional body framed for five years in India responsible for recommending the distribution of taxes between the central and state governments.

5.8 Model Questions

Q 1. What is fiscal federalism? Discuss the features of fiscal federalism in India.

Q 2. Explain the fiscal reforms undertaken by government in India

Q 3. What are the challenges and issues associated with fiscal federalism in India? High light some recent developments.

5.9 References

1. M. Govinda Rao and Tapas K.Sen; "Federalism and Fiscal Reforms in India" NIPFP, Working Paper, Feb.2011.

2. Vijay Kelkar; "Towards India's New Fiscal Federalism" NIPFP, Working Paper, Jan 2019

3. J.F. Due and A.F. Friedlander; Government Finance: economics of public sector, 1981

4. W. E. Oates; "Fiscal Federalism New York, New York, 1972

5. T.M. Thomas Isaac, Lekha Chakraborty & R. Mohan; "Challenges to Indian Fiscal Federalism", Left Word Books, New Delhi-2019

Unit 6 Public Receipts and Principles of Taxation

Structure:

13.0 Learning Objectives

After going through this unit the learners will be able to understand;

- Meaning of public revenue
- Sources of public revenue
- Components of public revenue
- Trends of public revenue in India
- Ability to pay theory
- Maximum advantage theory
- Direct and indirect taxes

6.1 Introduction

Public revenue, often referred to as government income or receipts, constitutes the financial resources that a government collects to fund its operations and public expenditures. It plays a crucial role in sustaining the functioning of a nation's economy and supporting various public services, infrastructure projects, social welfare programs, and administrative activities. Public revenue is derived from a variety of sources, and its composition can vary from one country to another based on economic, social, and political factors.

6.3 Sources of Public Revenue

Public revenue, often referred to as government income or receipts, constitutes the financial resources that a government collects to fund its operations and public expenditures. It plays a crucial role in sustaining the functioning of a nation's economy and supporting various public services, infrastructure projects, social welfare programs, and administrative activities. Public revenue is derived from a variety of sources, and its composition can vary from one country to another based on economic, social, and political factors.

Public Income has been defined by Dalton in a narrow sense and in a broad sense. In the narrow sense, it includes income from taxes, prices of goods and services supplied by public enterprises, revenue from administrative activities, such as fees, fines etc. It is referred to as public revenue. In its wider sense it includes all the incomes of the government during a given period of time, including public borrowings from individuals and banks and income from public enterprises. It is known as public receipts. There are two sources of public revenue viz, tax revenue and non-tax revenue. The revenue obtained through various taxes is known as tax revenue, while income received from administration, commercial enterprises, gifts and grants is non-tax revenue.

Tax Revenue-

Common types of taxes include income tax, corporation tax, VAT, GST, excise tax, property tax and estate duties.

Taxes are imposed by the government on the people and is compulsory on the part of the citizens to pay taxes, without expecting a return. Professor Seligman defines a tax as 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. Professor Taussig puts it as 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 public authority.

Characteristics of a Tax- A tax possesses the following characteristics: A tax is a compulsory payment levied by the state. Refusal to pay a tax leads to punishment.

There is no direct quid pro quo between the state and the people. The taxpayers cannot claim reciprocal benefits against the taxes paid. There is no relation between the services rendered to a taxpayer and the amount of tax paid by him. Even if a person does not receive any service, he must contribute towards the expenses in the common interest.

A tax is a payment for meeting the expenses in the common inter of all the citizens. The state exists for the common good of all. The government has to incur large amount of expenditure for the development a improvement of social life. Therefore, taxes are imposed on all the people so that all may share the common burden.

A tax is payable regularly and periodically. It is a personal obligation imposed on the taxpayer. He has to pay it. He should not try to evade it

In short, a tax is a compulsory contribution imposed only by the government. The taxpayer has to pay the taxes in the interest of social welfare . A tax has no relation with the services rendered. A tax is a legal collection imposed upon an individual or property or commodities but actually paid by individuals Thus, taxes form the most important sources of public revenue and affect consumption, production and distribution. They bring about equality in income distribution and help to increase savings in a developing economy.

Non-tax Revenue-

Non-tax revenue refers to the income received by the government through administration, commercial enterprises, grants and gifts.

Administrative revenues-

The administrative revenues arise from the administrative functions of the government. They include fees, licence fees, special assessment, fines, forfeitures and escheat. In this case, there is no close relation between the amount of payment and value of benefit.

Fees-Fees are charged by the government to meet the cost of administrative services rendered. 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 fee, for example is a payment made by a person in a legal case. The amount of fee is based on the cost of rendering the service. Quid pro quo is present in a fee.

Licence Fee-A licence fee is similar to a fee. A licence fee is pad in those cases in which the government authority is invoked simply to confer a permission or a privilege rather than to perform a service of a more tangible or definite sort. Licence fees are charged to give permission for something by the controlling authority. The object of a licence fee is to control injurious activities. For example, licences are given to liquor shops only to control the sales. Hence, an element of control is present in licence fee. It is absent in fee and taxes.

Special Assessment- According to Seligman, special assessment is a compulsory contribution, levied in proportion of to the special benefits derived, to defray the cost of specific improvement to property undertaken in public interest. When the government undertakes certain public improvement programs like provision of drainage, construction of roads, lightening, etc. they provide common benefit to the community and confer a special benefit to those whose properties are nearby. Hence, to meet the expenses incurred, the government imposes a levy which is known as special assessment.

The special assessment resembles a tax in two respects. Firstly, income levied through a tax as well as special assessment is used only for the benefit of the community. Secondly, both are compulsory. However, there are significant differences between a tax and special assessment. Firstly, tax revenue is used for general purposes while income from special assessment is used for specific local improvement. Secondly, a tax may have any basis of assessment-income, expenditure, value of property. But a special assessment must be levied in proportion to benefits received. Thirdly, special assessments are generally imposed to finance some special developmental activities while taxes may be levied to finance capital development scheme, while taxes may be levied to finance a capital development scheme.

Fines and Penalties- Fines and penalties are imposed on persons as a punishment for infringement of laws. They are not imposed for the purpose of obtaining revenue but to prevent crime. They have no relation to the cost of administration. Fines and penalties are arbitrarily determined. Hence, collections from fines and penalties are not an important source of revenue.
Forfeitures refer to the penalties imposed by courts for the failure of individuals to appear in the courts, to complete contracts as stipulated .Obviously, this source of revenue is of little importance. The state may take possession of the property of a person who dies without having any legal heirs or without having made any specific wills. The government may also acquire unclaimed property of dissolved educational trust or other trusts etc. Obviously, this source of revenue is also of very little importance.

Gifts and Grants-Patriotic, charitably-minded, public spirited or conscientious persons may give gifts to the state. The volume of gifts is not very large except in times of war or other emergency. Gifts are generally voluntary contributions. Sometimes, they become compulsory because of the pressure exercised by the government. Gifts do not occupy an important place in modern revenue systems.

Grants from one government to another are of greater importance. The government gives grants to local bodies. In a federal set up, the central government gives grants-in-aid to state governments and state governments give grants to the local governments to carry out their functions successfully. These grants may be conditional, unconditional or may be given for specific purposes only. Sometimes, government of one country receives a grant from another country, which is called foreign aid. It may be military aid, economic aid, and technical aid and so on. Such aids have proved to be of considerable help to under-developed countries, but it may lead to international difficulties. It is also uncertain and not always unconditional. Its continuance depends upon the prevailing situation in the world as well as in the aid-giving country.

Revenues from Commercial Enterprises- Commercial revenues refer to the incomes earned by public enterprises by selling their goods and services For example, payment for postage, tolls, interest on borrowed funds etc. Government may undertake many enterprises due to various reasons: private individuals are unwilling to take up certain essential services because of low profits or long gestation period; certain goods may be produced by the government to regulate their consumption; some enterprises may be undertaken to protect the interests of the consumers. Commercial revenues accrue in the form of prices paid for goods produced by the government enterprises. However, there exist certain differences between a tax and price. Tax is compulsory while price is paid by the buyers of goods produced by the government. An element of quid pro quo exists in the case of commercial revenues, whereas it is absent in the case of taxes. Professor Taylor puts it as,the characteristics which distinguish commercial revenue from other categories are direct receipts of a commodity or service for payment and adjustment of the amount of payment at least roughly to cost benefit.
Fiscal monopoly is also a source of commercial revenue-It refers to a situation in which the government takes up the production of a commodity on a monopolistic basis. Through fiscal monopoly, it is possible to reduce cost and increase production. Besides, it will increase the finances of the government.

6.4 Components of Public Revenue

Major Components of Public Revenue with Reference to India:
In the Indian context, public revenue is composed of various components that contribute to the government's income. Some of the major components of public revenue in India include:

Direct Taxes: These taxes are levied directly on individuals and businesses based on their income, profits, and wealth. Examples include income tax, corporate tax, and wealth tax (abolished in 2015).

Indirect Taxes: These taxes are imposed on the consumption of goods and services and are passed on to the consumers through the price of the products. Examples include GST, excise duties, customs duties, and service tax.

Non-Tax Revenue: India's non-tax revenue includes income generated from sources other than taxes. This includes dividends from state-owned enterprises like Indian Oil Corporation, profits from the Reserve Bank of India, and fees collected for services rendered by the government.

Borrowings: The government also raises revenue through borrowings from domestic and international markets. This includes issuing bonds and securities to investors and institutions.

Grants and Aid: India receives grants and financial assistance from foreign governments and international organizations to support various development projects and programs.

Disinvestment: The government generates revenue by selling its stakes in public sector undertakings (PSUs) and state-owned companies.

Miscellaneous Sources: This includes fines, penalties, and fees collected for specific services, licenses, and permits.

6.5 Public revenue trends in India

Phase 1: Independence to 1991

During this period, India followed a largely socialist and protectionist economic model. The government played a central role in economic activities and had a significant influence on public revenue. Key points include:

Tax Structure: The tax system was characterized by high progressive taxation, particularly on income and corporate profits. Import duties were also a major source of revenue due to protectionist policies.

Limited Private Sector: The private sector was relatively small and controlled, leading to a limited contribution to tax revenues.

Public Sector Enterprises: The government owned and operated numerous public sector enterprises, contributing to revenue through dividends, profits, and taxes.

Agriculture Dominance: Agriculture played a significant role in the economy, but its contribution to tax revenue was limited due to exemptions.

Phase 2: Introduction of Economic Reforms (1991-2023)
Following the economic liberalization in 1991, India shifted towards a market-oriented economy, opening up to globalization and privatization. This had a profound impact on public revenue:

Tax Reforms: The tax system underwent substantial reforms, including the introduction of the Goods and Services Tax (GST) in 2017. GST streamlined indirect taxes, improving revenue collection efficiency.

Foreign Investment: Liberalization attracted foreign investment, which led to increased economic activity and subsequently higher tax revenues.

Privatization: The government started divesting from many public sector enterprises, focusing on core sectors, which impacted revenue from dividends and profits.

Service Sector Growth: The service sector, including IT and telecommunications, witnessed substantial growth, contributing significantly to tax revenues.

Rising Middle Class: The growth of the middle class led to increased consumption and income tax revenue.

Globalization: Export-led growth and globalization contributed to customs and export duties, boosting revenue.

Challenges: Despite positive trends, challenges such as tax evasion, informal economy, and unequal income distribution remained.

In summary, the period from independence to 1991 saw a more centralized, socialist model with limited private sector participation, while the phase since 1991 witnessed significant economic reforms leading to a more market-oriented economy, foreign investment, and growth in the service sector. This transformation resulted in changes in the sources and structure of public revenue in India.

TABLE 91: CENTRAL GOVERNMENT RECEIPTS - MAJOR COMPONENTS

(₹ Crore)

Year	Tax revenue (net)	Direct tax (net)	of which: Personal income tax	of which: Corpora-tion tax	Indirect tax	of which: Excise duties	of which: Customs duties	Non-tax revenue	of which: Interest receipts	**Revenue receipts (2+9)**	Capital receipts	**Total receipts (11+12)**
1	2	3	4	5	6	7	8	9	10	11	12	13
1974-75	5097	1142	362	709	3956	2528	1333	1345	776	**6442**	2774	**9216**
1975-76	6010	1480	480	862	4530	2988	1419	1854	934	**7864**	4149	**12013**
1976-77	6581	1686	542	984	4895	3193	1554	1987	1105	**8568**	4958	**13526**
1977-78	7060	1742	327	1221	5319	3335	1824	2478	1441	**9538**	5035	**14573**
1978-79	8568	1842	471	1256	6726	4128	2424	2406	1427	**10974**	6285	**17259**
1979-80	8567	1950	475	1392	6617	3481	2924	2542	1360	**11109**	5420	**16529**
1980-81	9358	1893	438	1311	7465	3723	3409	3015	1795	**12373**	7918	**20291**
1981-82	11542	2518	459	1970	9024	4181	4300	3482	2215	**15024**	8849	**23873**
1982-83	13017	2723	438	2185	10294	4567	5119	4417	2852	**17434**	11701	**29135**
1983-84	15441	3131	527	2493	12310	6165	5583	4270	2668	**19711**	14406	**34117**
1984-85	17651	3375	697	2556	14276	6625	7041	5815	3963	**23466**	16421	**39887**
1985-86	21140	3698	665	2865	17442	7331	9526	6895	4595	**28035**	19315	**47350**
1986-87	24319	4023	719	3160	20296	8164	11475	8764	5353	**33083**	21572	**54655**
1987-88	28015	4100	603	3433	23915	9423	13702	9022	5755	**37037**	25408	**62445**
1988-89	33751	6021	1492	4407	27730	10922	15805	9840	6981	**43591**	29878	**73469**
1989-90	38349	6028	1088	4729	32321	13096	18036	13947	8474	**52296**	30020	**82316**
1990-91	42978	6903	1250	5335	36075	14100	20644	11976	8730	**54954**	38997	**93951**
1991-92	50069	10103	1627	7853	39966	16017	22257	15961	10933	**66030**	38528	**104558**
1992-93	54044	12075	1831	8899	41969	16367	23776	20084	12487	**74128**	36178	**110306**
1993-94	53449	12522	1355	10060	40927	17224	22193	22004	15078	**75453**	55440	**130893**
1994-95	67454	18409	3468	13822	49045	21064	26789	23629	15797	**91083**	68695	**159778**
1995-96	81939	22287	4318	16487	59652	22176	35757	28191	18419	**110130**	58338	**168468**
1996-97	93701	25374	4715	18567	68326	23463	42851	32578	22106	**126279**	61544	**187823**
1997-98	95672	27172	3589	20016	68500	25516	40193	38214	25323	**133886**	99077	**232963**
1998-99	104652	32120	5760	24529	72532	28581	40668	44833	30076	**149485**	130064	**279549**
1999-00	128271	41436	9131	30692	86836	34944	48419	53211	33895	**181482**	115707	**297189**
2000-01	136658	49651	23766	25177	87007	49758	34163	55947	32811	**192605**	134184	**326789**
2001-02	133532	47703	22106	25133	85828	54469	28340	67774	35538	**201306**	162500	**363806**
2002-03	158544	61612	27779	33893	96932	62388	31898	72290	37622	**230834**	180531	**411365**
2003-04	186982	76590	30765	45706	110392	70245	34586	76831	38538	**263813**	211333	**475146**
2004-05	224798	95944	35443	60289	128854	77241	41811	81193	32387	**305991**	200391	**506382**
2005-06	270264	120692	45238	75187	149572	86642	46645	76813	22032	**347077**	179549	**526626**
2006-07	351182	169738	62707	106701	181444	92651	62819	83205	22524	**434387**	144482	**578869**
2007-08	439547	231574	86563	144660	207972	96178	75382	102317	21060	**541864**	197978	**739842**
2008-09	443319	248152	86985	160797	195169	81872	69217	96940	20717	**540259**	299863	**840122**
2009-10	456536	271623	94532	176797	184913	84383	60223	116275	21784	**572811**	453063	**1025874**
2010-11	569868	313501	102441	209115	256367	110222	97598	218602	19734	**788471**	402428	**1190899**
2011-12	629764	343310	118224	227411	286454	116226	105614	121672	20252	**751437**	568918	**1320355**
2012-13	741877	396585	140438	255570	345292	141245	115890	137354	20761	**879232**	582152	**1461383**
2013-14	815854	455829	169408	285742	360025	137975	121059	198870	21868	**1014724**	563894	**1578618**
2014-15	903615	500531	188336	311453	403085	153709	127994	197766	23734	**1101381**	484448	**1585829**
2015-16	943765	449296	172748	275917	494469	220473	128829	251260	25378	**1195025**	582579	**1777604**
2016-17	1101372	521287	225214	295960	580085	286088	135372	272831	16229	**1374203**	609886	**1984089**
2017-18	1242488	606216	258461	347712	636272	211393	78601	192745	13574	**1435233**	702650	**2137883**
2018-19	1317211	723492	303508	419953	593719	204021	75231	235704	12145	**1552916**	763518	**2316434**
2019-20	1356902	638365	298204	340143	718537	212988	71472	327157	12349	**1684059**	997301	**2681360**
2020-21	1426287	583210	299689	283507	843077	367764	91070	207633	17113	**1633920**	1883105	**3517024**
2021-22	1765145	808800	398657	410135	956345	383289	152201	313791	20894	**2078936**	1516877	**3595813**
2022-23	1934771	918755	453734	465011	1016016	323971	177593	269651	18000	**2204422**	1739735	**3944157**

Notes : 1. Data for 2021-22 are Revised Estimates and Data for 2022-23 are Budget Estimates.
2. All the tax revenues in this table are net of State Government's share and amount assigned to National Calamity Contingency Fund (NCCF).
3. Capital Receipts for 2002-03, 2003-04 and 2004-05 include receipts under the State Debt Swap Scheme.
4. Capital Receipts and Total Receipts of 2007 include an amount of ₹34309 Crore which represents the Reserve Bank's surplus transferred to the Central Government on account of transfer of its stake in SBI to the Central Government.
5. Capital Receipts and total receipts exclude Draw-Down of Cash balances.

Also see Notes on Tables.

Source : Budget documents of the Government of India and Finance Accounts (various issues).

Source: www.rbi.org.in

6.6 Adam Smith’s theory of taxation: canons of taxation

Adam Smith, a renowned economist and philosopher from the 18th century, proposed his theory on taxation in his seminal work "The Wealth of Nations" (1776). His ideas on taxation are often summarized in his four canons of taxation, which are principles to guide a just and efficient tax system:

1. **Canon of Equity**: This principle suggests that taxes should be fair and equitable, meaning they should be based on individuals' ability to pay. Smith argued that those who benefit more from society should contribute more to its maintenance. This is where the concept of progressive taxation, where higher-income individuals pay a higher percentage of their income in taxes, aligns with Smith's theory.

2. **Canon of Certainty:** Smith believed that taxes should be predictable and certain, both in terms of when they are due and the amount to be paid. This allows individuals and businesses to plan their finances effectively without uncertainty or fear of sudden changes.

3. **Canon of Convenience:** According to Smith, taxes should be collected in a manner that is convenient and minimizes inconvenience to taxpayers. This means that the tax collection process should not be overly burdensome or complicated, ensuring that compliance is easier.

4. **Canon of Economy:** This canon states that the cost of tax administration should be minimized, ensuring that a significant portion of the tax revenue collected is directed towards public purposes rather than administrative expenses.

   Adam Smith's ideas laid the foundation for modern taxation theory. His canons emphasize the importance of fairness, predictability, convenience, and efficiency in designing an effective tax system. While his principles are still relevant, modern economies and tax systems have evolved considerably since his time.

In addition to these primary canons of Smith, other economists had added other canons of taxation which are as follows.

5. **Canon of Productivity**: This canon was developed by Charles F Bastable. It connotes two things. Firstly, taxes should bring sufficient revenue to the state. Secondly, taxes should stimulate productive activity in the short run as well as long run. Instead of imposing large number of un productive taxes, it is better to impose few productive taxes.

6. **Canon of Elasticity:** Bastable also gave importance to the canon o elasticity. According to this canon, it should be possible to increase decrease the tax revenue depending upon the need. If the government needs more revenue to meet some emergency, the tax should yield more income. Income tax satisfies this canon.

7. **Canon of Diversity:** This canon was also developed by Bastable. I implies that there should be a number of different taxes in the country. If there is only one tax, the government may not get sufficient income. Therefore, the government should impose large variety of taxes. This will make every individual to pay something to the national exchequer. This canon of diversity may come in to conflict with the principle of productivity and economy. A large number of taxes may bring only small amount of revenues with high cost of collection. So, too many taxes are not desirable.

8. **Canon of simplicity:** It implies that tax should be simple and easy to understand So as to lower corruption.
9. **Canon of Expediency:** The levy of each tax should be based on self-supporting grounds. It must not need any justification from the government. Tax payers should not have any doubt about the desirability of the tax. The government should increase its revenue by increasing its existing tax rates.
10. **Canon of Coordination:** There should be coordination between different taxing authorities. In a democracy, central, state and local governments impose various taxes.

Therefore, it is desirable to have coordination between them.

Raja J Chelliah in his book Fiscal Policy in Underdeveloped Countries has enunciated certain canons which are appropriate to India and other less developed countries.

Mobilisation of economic surplus. In developing countries a large part of the national income goes to rich propertied people and big landlords They spend their income only on conspicuous consumption. Therefore, for accelerating rapid economic growth, this surplus income should be mobilised for purposes of productive investment.

Ability to contribute to economic development. Every individual should contribute to economic development according to his ability. Idle savings should be mobilised and used for productive investment. If a person's income is more than his subsistence level, then the excess must be taken away and used for economic development.

Increasing the incremental saving ratio. As an economy develops rapidly, employment and income increase. But this increased income p be used for consumption. In order to prevent wasteful consumption expenditures, taxes may be used.

Income elasticity of taxation. The share of taxation in national in- may come should be increased. This needs built-in-flexibility in the tax system. Progressive tax on income and commodity taxation impart elasticity to the tax system.

Equity. The burden of economic development should be equitably distributed among all people. In other words, similarly situated persons should be treated alike. Rich people should be prevented from increasing their consumption and poor people automatically reduce their consumption due to rise in prices.

6.7 Importance of Taxation:

Taxation is a crucial aspect of any modern economy, serving various purposes and influenced by different theories. Let's explore some of these theories and their importance:

Revenue Generation Theory: This theory posits that taxation is primarily essential to generate funds for government expenditures, such as public services, infrastructure, and defence. Taxes are collected to ensure that the government can function effectively and provide essential services to its citizens.

Fiscal Policy Theory: Taxation is used as a tool to manage the overall economy. Through changes in tax rates, the government can influence aggregate demand, economic growth, and inflation. Higher taxes can help control inflation by reducing disposable income, while lower taxes can stimulate consumer spending and business investment.

Redistribution of Wealth Theory: Taxation can address income inequality by redistributing wealth from higher income groups to lower income groups. Progressive tax systems, where higher earners pay a larger proportion of their income as taxes, are designed to achieve this goal and reduce wealth disparities.

Resource Allocation Theory: Taxes can influence consumer and producer behaviour by making certain goods and services more or less attractive. For instance, higher taxes on cigarettes can discourage smoking, while tax incentives for renewable energy can promote environmentally friendly practices.

Public Goods Theory: Taxes are used to fund public goods and services that are non-excludable and non-rivalrous, meaning everyone benefits and consumption by one individual doesn't reduce availability for others. Examples include defence, public infrastructure, and education.

Market Failure Theory: Taxation can correct market failures such as externalities (e.g., pollution), imperfect information, and monopolies. Taxes on negative externalities like pollution can internalize the costs and incentivize better environmental practices.

Behavioural Economics Theory: Taxes can nudge individuals toward desirable behaviours and discourage harmful ones. For instance, taxes on sugary drinks can discourage consumption and promote healthier choices.

Incentive Theory: Taxation can influence people's decisions to work, save, and invest. High tax rates might reduce the incentive to work more or invest, while lower tax rates can encourage economic activity.

Administrative Efficiency Theory: Taxation can be designed to minimize administrative costs and complexity. Simple, well-structured tax systems can reduce compliance burdens and enhance economic efficiency.

In summary, taxation is significant as it generates revenue for government operations, shapes economic policy, addresses wealth inequality, allocates resources efficiently, funds public goods, corrects market failures, influences behaviour, and provides incentives for economic activity. Different theories guide the design and implementation of tax systems to achieve these various goals.

6.8 Ability to pay theory

Introduction.

This is otherwise known as Equity in Taxation Theory is a principle that suggests individuals or entities should be taxed based on their ability to pay, or their relative economic capacity. This theory emphasizes equity and fairness in the distribution of tax burdens. It implies that those with higher incomes should contribute a larger portion of their earnings in taxes compared to those with lower incomes, as they have a greater ability to bear the financial burden.

The rationale behind this theory lies in the concept of progressive taxation, where tax rates increase as income levels rise. Proponents argue that this approach helps in achieving a more just distribution of resources and promotes social cohesion. It also reflects the idea that those who benefit more from the services and infrastructure funded by taxes should contribute more towards their upkeep.

However, critics of the Ability to Pay theory raise several points. They argue that higher tax rates on the wealthy could discourage investment, job creation, and economic growth, potentially leading to negative consequences for the economy as a whole. Critics also suggest that the theory may be overly simplistic, as it doesn't take into account factors such as deductions, exemptions, and tax shelters that can impact the actual tax liability of high-income individuals.

Let us analyse the theory in details.

The just and equitable theory of distribution is ability to pay theory which according to Mill is equity in taxation means equity in sacrifice and it implies that all people should incur equal sacrifice to make taxation just and equitable.

The Theory.

Justification of ability to pay principle.

The ability to pay principle has been justified on three grounds.

1. Ability to pay theory has been justified on the basis of equality of sacrifice. Each taxpayer is expected to pay equal amount.
2. Ability to pay theory is also justified on the basis of the law of diminishing marginal utility. As income increases, utility from income diminishes, therefore, rich should be taxed at a higher level than the poor.

3 Ability to pay theory is based upon faculty interpretation. It the capacity of the individuals to produce and consume. It is represents the income, the property and wealth of the individual.

Index of Ability to Pay:

1. **Property**-Property was considered to be the best measure of ability to pay. Property is a source of income; it provides security and insurance against risk However, it cannot be the best measure of ability to pay because of the following reasons.

(a) Income from property may be an important source of income but not the main source.

(b) It may not be continuous.
(e) It varies depending upon its nature, size and location.
(d) The tax on property is based upon the capital value.

If the property does not yield income, then tax on property is unjust.
2. **Income-**Income is another important index of ability to pay. Gross income is not suitable as it is composed of cost. Therefore, net income is the best measure of ability to pay. Adam Smith was the first to consider income as the best measure of ability to pay. Now it is widely accepted.

3. **Size of the family-**Size of the family is also an important factor affecting the ability to pay. Larger the size of the family the smaller is the tax paying capacity. Though the size of the family is an important measure of ability to pay it cannot be a primary measure of ability to pay.

4. **Consumption**-Consumption expenditure of an individual is also an index of ability to pay. Tax on income and property may be evaded by submitting false accounts. J.S. Mill, Fisher and Kaldor advocated a tax on consumption. Kaldor says that ,consumption rather than income should be the basis of taxation.

In order to measure the ability to pay, two different approaches have been developed-subjective and objective approaches.

Subjective Approach to Ability to Pay.

The subjective approach is based upon the psychological reaction of taxpayers. Each taxpayer should make equal sacrifice if tax burden is to be equally distributed. It implies that similarly situated persons should be treated similarly so that horizontal equity can be achieved. On the other hand, people with dissimilar situations should be treated dissimilarly to achieve vertical equity. The term equal sacrifice has been interpreted in three ways: equal absolute sacrifice, equal proportional sacrifice and equal marginal sacrifice.

Equal absolute sacrifice. According to this principle, loss of utility should be equal to all taxpayers. It means the rich should pay higher tax than the poor. But it leads to regressive taxation and hence it has opposed by many economists.

Equal proportional sacrifice.

The principle of equal proportional sacrifice implies that the loss of utility should be proportional to the total income of the tax payers. Higher income groups should be taxed at a higher level than the lower income groups .

But the ratio of sacrifice to the income should be the same for all. It can be expressed in mathematical terms as:

Rate of tax=sacrifice of A/income of A= Sacrifice of B/Income of B.

This principle leads to progressive taxation as marginal utility diminish with the rise in Income.

Equal marginal sacrifice.

It is also known as least aggregate principle. According to this principle total sacrifice made by all the tax payers should be the lowest. This principle leads to progressive taxation. The principle of equal absolute sacrifice, equal proportional s equal marginal sacrifice can be mathematically expressed in the following way.

Equal absolute sacrifice: [U (Y)-U (Y-T)] A = [U (Y)-U (Y-T)] B

Equal proportional sacrifice:

[U(Y)-U(Y-T)/Y(Y)A]=[U(Y)-U(Y-T)/U(Y)B]

Equal marginal sacrifice:

[dU(Y-T)/d(Y-T]A=[dU(Y-T)/d(Y-T)B]

Where:

Y = Income ,T = Tax

U Total utility,

U(Y) Total utility before tax ,U(Y-T) Total utility after tax.

The sub-scripts A and B are individuals.

These three concepts can be represented diagrammatically. It is based the following assumptions.

1. The marginal utility of income declines as income increases.
2. The marginal utility of income schedule can be drawn to represent the utilities of all individuals in the economy. This makes interpersonal comparisons possible.
3. Income has no utility below subsistence level.
4. The government has a given revenue
requirement.

Figure: utility schedules of two individuals.

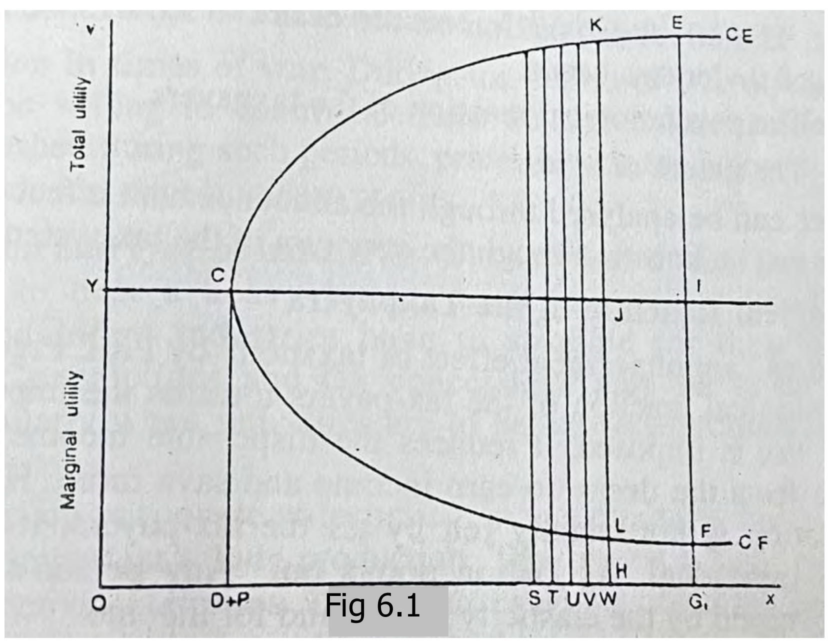


Fig 6.1

Horizontal axis measures income and vertical axis measures MU.CE is the total utility income curve and CF is the MU of income. OD and TC are amounts of income needed for maintaining subsistence. Tax payer A has the income above the subsistence level equal to DG and tax payer B has DH. The total utility of A is IE and marginal utility is GF. The total utility of B is JK and MU is HL. Now an income tax equal to PG is introduced.

Under equal absolute sacrifice A will pay WG and B will pay SH. Under equal proportional sacrifice A pays VG and B pays TH. Under equal marginal sacrifice, A pays VG and B pays VH amount of tax. The relative tax liability and the relative progressiveness of the tax structure under the different sacrifice principles are summarised in the following
table:

Principles of Sacrifice	The liability of the		Relative Progressiveness of the Tax Structure
	Rich	Poor	
1. Equal Absolute Sacrifice	Least	Most	Least
2. Equal Proportional Sacrifice	More	less	More than under (1) and less than under (3)
3. Equal Marginal Sacrifice	Most	Least	Most

The third column shows only the relative progressiveness of the tax structure under different sacrifice principles.

Limitations:

The subjective approach is objected on the following grounds:

1. Similarly situated persons may not involve same sacrifice, even if they pay the same amount of tax .They differ in tastes, temperaments and attitude to pay tax.

(2) is impossible to measure the rate of decrease in marginal utility with increase in income.

(4) Utility depends on the income earned by the individual than the utility from inherited wealth and property. These facts have not been given importance in the subjective approach.

(5) Subjective approach is not true. Prof. Musgrave observes that It remains to be seen whether a workable and reasonable meaningful measure of utility can be developed in time. Thus it is not possible to base a good tax structure on it.

Objective Approach to Ability to Pay.

Due to the limitations of subjective approach, American economists have developed an alternative approach known as faculty theory of ability to pay. This approach has suggested three main criteria to measure ability to pay viz., income, property and consumption.

(a) Income. Income is considered to be the best index of ability to pay.

Income from all sources in a given period should be calculated. Only net income should be taken into account along with source of income, nature of income and size of the family.

(b)Property. The amount of inherited wealth and accumulated property also are considered to be an important measure of ability to pay. But it is also a defective measure because all properties may not yield income.

(c) Consumption. Prof. Kaldor has advocated consumption expenditure to be the basis of ability to pay. Consumption expenditure is the true index of taxable capacity of an individual.

Limitations of Objective Approach:

1. A tax on property is regressive because if falls heavily on small property holder.
2. There is also lack of uniformity in the assessment of tax.
3. People may conceal their income and property in order to escape tax burden.

Therefore, objective approach plays a supplementary role to subjective in achieving equity in the distribution of tax burden.

6.9 Maximum social Advantage theory

Introduction.

This theory is otherwise known as Theory of

Optimizing Social Welfare.

The Theory of Maximum Social Advantage, often associated with economics, posits that public policy decisions should be made in a way that maximizes the overall welfare and well-being of society. This theory assumes that rational individuals seek to maximize their own utility and that market outcomes can sometimes lead to inefficiencies or inequities. As a result, government intervention can be justified if it leads to a more optimal allocation of resources and improved societal welfare.

The theory's underlying assumptions include:

.Rational Individuals: People are assumed to make decisions based on their own self-interest and preferences.

.Utility Maximization: Individuals aim to maximize their utility, or well-being, when making choices.

.Market Failures: Markets may not always allocate resources efficiently, leading to situations like monopolies, externalities, and information asymmetry.

.Pareto Efficiency: A state where no individual can be made better off without making someone else worse off. This concept underlines the goal of improving social welfare without harming anyone.

The Theory:

The Principle of Maximum Social Advantage is the result of a need to find a principle which governs the entire scope of Public Finance. Classical Economics had no such principle because early economists like Adam Smith recommended minimum amount of taxation and state activities. They believed that every tax is an evil because taxation checked private expenditure which was productive. On the other hand all public expenditure was unproductive. J.B. Say said that the very best of all plans of finance was to spend little and the best of all taxes was that which was least in amount. This policy may prove good in a simple police state maintaining only law and order. But in a modern welfare state, there is need for a principle to regulate financial activities of the state. According to Dalton, this guiding principle of Public Finance is the Principle of Maximum Social

Advantage. Pigou, who is the other economist to explain this principle, calls it as the Principle of Maximum Aggregate Welfare.

The basic idea of the Principle of Maximum Social Advantage is that all the financial operations of the government should result in benefit to the community. The objective of every state whether capitalist or communist, is the maximum good of the people. The fiscal or budget operations of the state have great impact on the economy. The revenue collected by the state through taxes and other sources and the public expenditure can have significant influence on the consumption, production and distribution of national income. Taxation and public-expenditure result in transfers of purchasing power from one section of the community to another. This affects the allocation of resources. The financial transactions of the modern budgets are huge. Hence there should be some criterion to guide the financial operations of the state. Such a criterion has to be the economic welfare of the people. Any financial activity of the state which leads to an increase in economic welfare is desirable. It is undesirable if it does not result in public welfare. This is the essence of the Principle of Maximum Social Advantage.

Dalton first points out that it is wrong to think that every tax is evil .For example, a tax on alcohol or tobacco or narcotic drugs likely to reduce its consumption by raising its price and thus does good to the society. Similarly every public expenditure need not be good. For example, expenditure on defence is necessary but expenditure on unnecessary war is an evil.Therefore the best policy is to balance both sides of fiscal operations by comparing the burden of tax and the benefits of public expenditure. The state should balance the social burden of taxation and social benefits of The expenditure so that there would be maximum social advantage.

Viewed this way, the Principle of Maximum Social Advantage has two propositions. The first proposition relates to how far the state can tax and spend. Taxation by itself results in a loss of utility to the people. This disutility is due to the sacrifice involved in the payment of taxes as they have to part with purchasing power. The marginal disutility or marginal social sacrifice of public revenue increases with additional doses of taxation. Similarly when the state spends money, it confers some benefit on the community. But the marginal social benefit from additional doses of public expenditure diminishes with every increase in public expenditures. So long as the marginal public expenditure is greater than the marginal disutility or sacrifice of taxation, it results in net benefit to the community. The figure below illustrates the nature of ideal financial operations.

The curve MSST in fig. is the marginal social sacrifice of taxation. It is upward sloping to show that as taxation increases, marginal social sacrifice of taxation also increases.

:

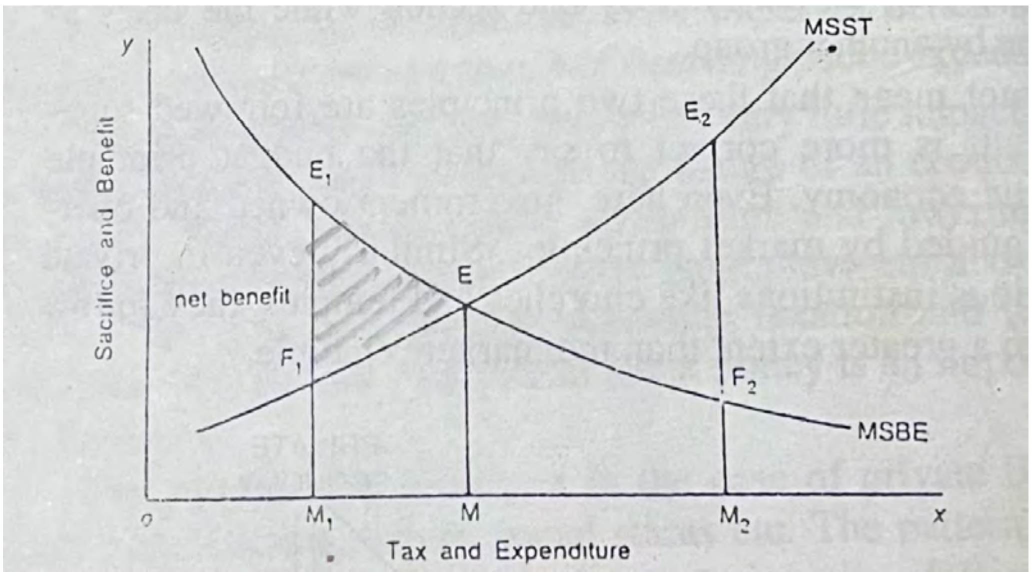


Fig: 6.2

The curve MSBE shows the marginal social benefit of public expenditure. It slopes downwards to indicate that the public benefit goes on declining with every increase in public expenditure. The ideal point of financial operations is when the government collects OM taxation from the society and uses it for public expenditure. At this point, marginal social sacrifice is exactly equal to marginal social benefit as shown by point E. Suppose the government collects only OM1 taxation, it results in loss of welfare to the society because at this level the marginal social benefit of M1E1 is higher than marginal social sacrifice of M1F1, by the extent of E1F1 which means the state can afford to tax more and spend more for public welfare, which can go on till OM. If it exceeds the limit of OM for some reason and collects OM2 taxation to finance larger public expenditure, the marginal social sacrifice is higher than marginal social benefit by E2F2. Thus ,the first proposition of the Principle of Maximum Social Advantage is that public expenditure should be carried up to the point where the marginal social benefit of public expenditure is equal to the marginal social sacrifice of amount raised through taxation and other sources of revenue. The point of maximum social advantage will then be the point of least aggregate sacrifice too.

Musgrave illustrates the Principle of Maximum Social Advantage in terms of the optimum budget where marginal net benefits are zero. In the fig.below, the size of the budget is measured on the horizontal axis. The marginal social sacrifice or disutility and the marginal social benefits are shown separately on the vertical axis. The marginal social sacrifice curve is MSS measuring the marginal disutility of taxation.

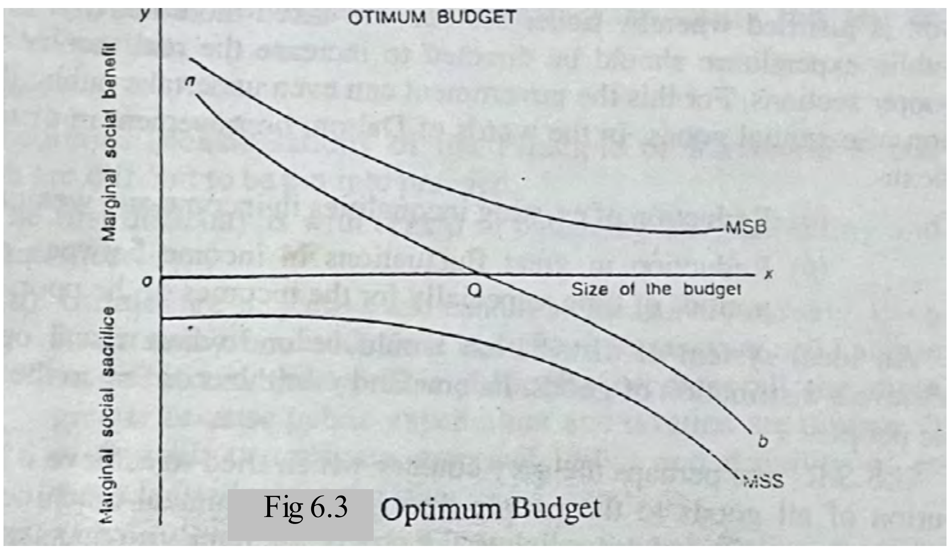


Fig 6.3 Optimum Budget

MSB is the marginal social benefit curve of government expenditure. The line nb is the net social benefit curve. It is got by deducting MSS from MSB. The net benefit curve intersects the horizontal axis at point Q where marginal net benefits are zero. Point Q indicates the optimum size of the budget. At this point the total net social advantage has to be maximum because marginal social benefit is equal to marginal social sacrifice. This gives the ideal level of both public expenditure and public income. In the words of Dalton ,Public expenditure in every direction should be carried just so far, that the advantage to the community of a further small increase in any direction is just counter-balanced by the disadvantage of a corresponding small increase in taxation or in receipts from any other source of income.

The second proposition that follows from this statement is that of allocating public expenditure and taxation among different items. In this problem of allocation of public expenditure and income, the principle of maximum social advantage is based upon the Law of Equimarginal Utility.

Public expenditure should be incurred in such a way that the last rupee spent on each item of expenditure should give the same satisfaction. The figure below illustrates the operation of this principle.

In the fig. below the two curves AA1 and BB1 are the utility curves for two types of government expenditure. If the govemment spends OT amount on item A and OL amount on item B, the total utility is OTCA from item A and OLPB from item B. Total utility is maximum because the marginal utility of expenditure A is TC which is equal to LP which is the marginal utility of expenditure on item B. If the government spends in any other way there will be a decrease in social benefit. For example, if the government spends OT on B, the MU increases to TN from LP and TU decreases to OTNB. Loss of benefit is TLPN.

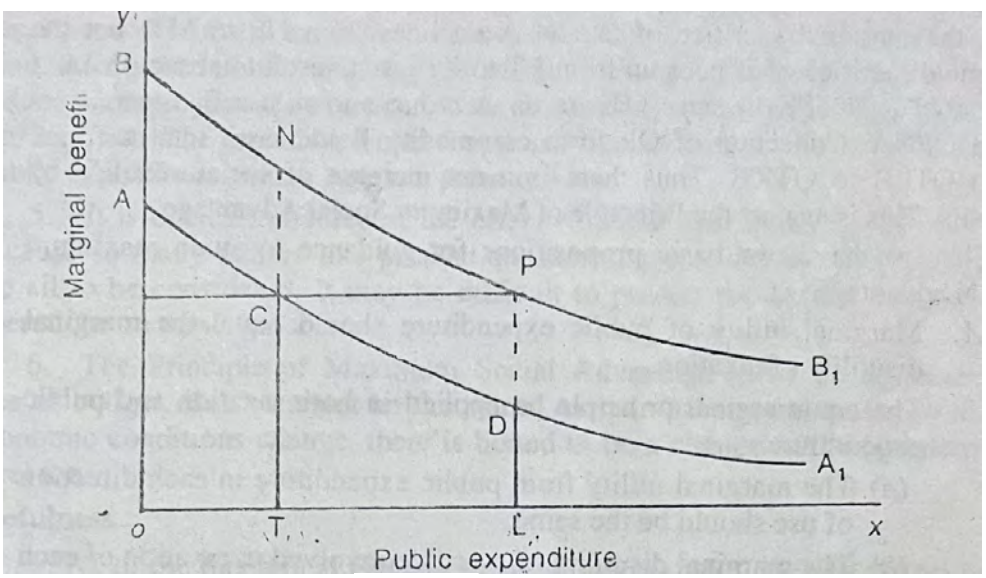
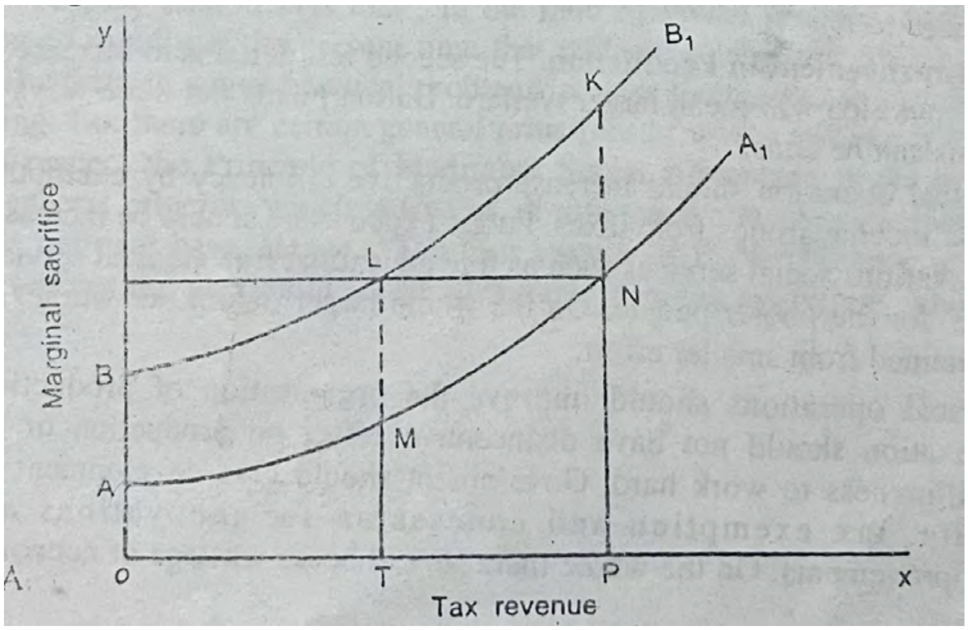


Fig: 6.4

If OL is spent on item A. The marginal utility decreases to LD from TC and total utility increases to TLDC and so, a decrease in TLPN is offset by an increase in TLDC thus resulting in a net decrease of NCD.This can be avoided only if the marginal utility of money on each item of social expenditure is equal. Similarly in the case of taxation, the equimarginal principle means that the marginal sacrifice of tax from one tax or source of public revenue be equal to the marginal sacrifice from another source.



In the fig. above, AA1 is the marginal sacrifice curve of a tax on commodity A and BB1 is the marginal sacrifice curve when commodity B is taxed. When the state collects OT from commodity B and OP from commodity A,the marginal sacrifice is equal , that is, LT =NP. So total sacrifice is minimum. On the other hand, if OT tax is collected from commodity A and OP from commodity B. then the marginal sacrifice of tax on A declines from NP to MT, but the marginal sacrifice of B goes up from LT to KP. As a result total sacrifice increased by LTPK because OT tax on A reduces total sacrifice to from OPNA. Collection of OP from commodity B increases total sacrifice from OTLB to OPKB. Thus, there is a net increase of social sacrifice by KLMN which is against the Principle of Maximum Social Advantage. Thus, we have two basic propositions for guidance to attain maximum social advantage: Marginal utility of public expenditure should equal the marginal disutility of taxation.

2. The equimarginal principle be applied in both taxation and public
expenditure.
(a) The marginal utility from public expenditure in each direction of use should be the same.
(b) The marginal disutility of sacrifice involved in taxation of each item should be equal.

Dalton's Objective Tests of Social Advantage .

The Principle of Maximum Social Advantage has to be applied to the wide variety of financial operations of the state. Hence, Dalton has proposed some objective tests of social advantage.

1. **Preservation of Community.**

   The first test is for the preservation of the community ,that is, the fiscal operations must help a government to provide and protect the community against external attack and internal disorders and for this reason, a large sum of money spent on armed forces, police and judiciary are quite justifiable. But it should not be carried too far and resulting in a police state. 2. Improvement in Production.

   The second test pertains to increase in production which will mean larger welfare. Dalton points out three ways in which this can be done.

   a. Fiscal operation should increase productive efficiency by exempting low-income groups from taxes. Public expenditure should be increased on various social services such as free education, free medical services etc. for the poorer people. On the whole larger output per worker be obtained from smaller effort.
   b. Fiscal operations should improve the organisation of production. Taxation should not have disincentive effect on production or the willingness to work hard. Government should give development rebate, tax exemption and concession for innovations and improvements. On the whole there should be no wastage of economic resources through unemployment and other causes.
   c. Fiscal operations should be such that goods are produced in right proportions as per the requirements of the people. Sometimes even certain consumptions and production may be

restricted in the public interest. For example, state governments are implementing prohibition. Similarly, essential services can be made state monopolies.

Thus, by improving productive efficiency, the organisation of production and the composition of output, fiscal operations should aim at increasing the production and thereby the economic welfare of the people.

2. **Improvement in Distribution.** Improvement in the distribution of wealth means a reduction in inequality of income. Hence, progressive taxation is justified whereby richer sections are taxed more heavily. Similarly public expenditure should be directed to increase the real incomes of the poorer sections. For this the government can even undertake public distribution of essential goods. In the words of Dalton, improvement in distribution means.

(a) reduction of existing inequalities in income and wealth.

(b) Reduction in great fluctuations in income between different periods of time, especially for the incomes of the poor.

An ideal system of distribution would be one where fiscal operations achieve a distribution of goods, income and wealth according to the needs of
the people.

U.S.S.R. was perhaps the only country which tried to achieve it by distribution of all goods to the people through governmental machinery. Even housing was provided according to the size of the family so that a certain percapita living space could be enjoyed. In India the fair price shops, provision of subsidised fertilisers to the farmers are all some examples of this goal.

3 **Economic Stability and Full Employment.**

The welfare of the people is maximised and assured if there are stable economic conditions. All types of unpredicted or sudden fluctuations in prices and other essential parameters should be eliminated. Such stability should be achieved at a high level of employment too. Fiscal operations should try to satisfy peoples' right to work. Long run unemployment should be reduced. Thus, during depression the government should increase public expenditure to undertake public works programmes like construction of roads and bridges to provide jobs to people. Even deficit budgets and deficit financing are permitted to realise such fiscal operations. Similarly, during inflation rising prices reduce the purchasing power of money. It results in a fall in the standard of living. As such it is desirable to have a heavy taxation and large-scale government borrowing during inflation and increased public expenditure during depressions. Keynesian economics made such compensatory fiscal policy very popular. Government of India's programmes of MGNREGS ,TRYSEM, Jan Dhan Yojana, DWACRA, are examples of such public expenditure to assure employment goal. 5. Provision for Future. Future considerations are the last test of the Principle of Maximum Social Advantage. Dalton regards the state as the trustee for the welfare of the future generations no less than the present. Individuals die but the country is for ever. Public policy should prefer larger social advantage in the future period compared to a smaller advantage in the present. If any policy of Public Finance reduces the present savings sharply, it may adversely affect the productive capacity of the future generation. Thus it is not justified. But a public expenditure, whose benefits may come after 40 years is justified in the interest of aggregate social welfare. Public expenditure on soil conservation, environmental protection, are all examples of this type. Government of India's huge expenditure on family planning programmes, afforestation, mass literacy all satisfy this test of future considerations.

Limitations:

It's important to note that the Theory of Maximum Social Advantage has its critics. Some argue that individual preferences are complex and not easily quantifiable, and that policy decisions might not accurately reflect true societal welfare. Additionally, implementing certain policies may face political challenges or unintended consequences that deviate from the theory's assumptions.

Let’s analyse the Limitations.

1. The first difficulty is with regard to balancing marginal utility and marginal sacrifice.

(a) Utilities are subjective and cannot be measured precisely. Even in the case of individuals it is difficult to measure and balance sacrifice and utility. This difficulty becomes all the more greater because public expenditure and taxation are diverse. It is difficult to compare marginal utility and disutility of so many individuals in the state.

(b) Also when the government spends for future benefits, its utility is indeterminate. As such the government cannot compare present and future marginal social sacrifice and benefits.

(c) Even if government succeeds in doing so, it may not be able to act accordingly, as government activities are greatly affected by many non-economic forces.

(d) Government expenditures are often lump sum expenditures made only one time. It is difficult to measure marginal benefit and sacrifice in such cases. (e) There is further the problem of dividing marginal utilities and disutilities among the public. Taxes are collected from a large number of people. So also the beneficiaries of public expenditure are many. Thus, if a new road is laid its utility may vary from person to person and from time to time. The opposition shown by Indians to pay even the negligible amount of salt tax levied by the British is a case in point. So also the Boston Tea Party prior to the American War of Independence illustrates the opposition shown by the American colonies to the duty on tea levied by their mother country England.

2. The disutility of taxation to the individual taxpayer is a micro problem. The utility of public expenditure to the society is a macro problem. Hence, there is the problem of balancing two different types of problems.
3. Disutility arises in payment of taxation but in public borrowing no such disutility is there. Hence, it looks as though there can be no limit to public expenditure financed through loans which is not correct.
4. In recent years, the fiscal operations are all adopted as a counter cyclical measure. In this case taxes cannot be reduced or increased beyond a limit. Also when public spending for public works project is undertaken to reduce unemployment, no one can think of equating marginal social benefits and sacrifice. The growth-oriented functional finance requires an increase in public expenditure from a long run point of view.
5. It is difficult to forecast the effect of fiscal operations of the statebecause so many factors like production, consumption, saving, investment are all to be considered. It may be difficult to predict the impact of fiscal operations on these variables.
6. The Principle of Maximum Social Advantage gives an optimum size of budget. But it cannot be the same. As national income changes, as economic conditions change, there is bound to be a change in the optimum level too.

Usefulness.

Implications for present-day public policy formulation:

Intervention in Market Failures: The theory supports government intervention to address market failures. For instance, regulating industries with natural monopolies, imposing taxes to account for negative externalities (like pollution), or providing public goods (like infrastructure) to ensure efficient resource allocation.

Income Redistribution: The theory could justify policies aimed at reducing income inequality, such as progressive taxation and social welfare programs, on the basis of enhancing overall social welfare.

Healthcare and Education: Public policy might emphasize the provision of quality healthcare and education as these contribute to individual well-being and long-term economic growth.

Environmental Policies: Environmental regulations can be justified under the theory to internalize externalities, encouraging sustainable resource use and pollution reduction.

Research and Development Incentives: Supporting innovation and research can enhance overall welfare by fostering technological advancements and economic growth.

In spite of the theoretical and practical limitations, the Principle of Maximum Social Advantage provides a yardstick to measure the efficiency of fiscal operations of the state chiefly in the realm of public expenditure and taxation. The tests provided by Dalton about improvement in production, distribution and future considerations should serve as a safe check to decide upon the proper type of taxation and expenditure.

The essence of this principle is that fiscal operations should result in net aggregate welfare. The government can seek the help of planners and economic experts to plan and execute its tax and expenditure policies. United States of America has a Council of Economic Advisers to decide upon fiscal operations.

To conclude, Dalton says that in the field of Public Finance, facts are moving so rapidly at the present time that realistic studies are soon out of date. The form in which practical problems present themselves is constantly changing. But there are certain general principles of which this is not true. In this respect the Principle of Maximum Social Advantage is the undisputed general principle which is true of all times and countries irrespective of their political base. Hence, the best system of Public Finance is that which secures the maximum social advantage from the operations which it conducts. In modern policy formulation, a balanced approach is often taken, considering economic, social, and ethical factors. Policymakers weigh the potential benefits and drawbacks of intervention, while acknowledging the limitations of the theory and the dynamic nature of society .The theoretical considerations of the Principle of Maximum Social Advantage are difficult to be put into practice.

6.10 Merits and Demerits of Direct and indirect taxes

Introduction:

Taxes have been variously classified and the most important one is between direct and indirect taxes.

To understand this classification, the concepts of 'impact' and 'incidence' of taxation will be helpful. When a tax is imposed. the impact of the tax is on the person or any legal entity from whom the tax is collected, whereas the incidence is on the person by whom the burden of tax is ultimately born. If a tax cannot be shifted to any one else, then both the impact and incidence will be on the same person. Such a tax is referred to as direct tax. Income tax is an example of direct tax, because this tax cannot be shifted to any body else and has to be borne by the person who first pays the tax. Other examples of direct tax are expenditure tax, estate duty, wealth tax, gift tax, property tax, etc. In the same way, indirect taxes may be defined as those taxes which are ultimately borne by some other person than the one who first paid the tax. In other words, the impact of indirect tax is on one person while its incidence is on some one else to whom the burden of tax is shifted. Goods and services tax is an example of indirect tax. It is first paid by the dealer of commodity, but when he sells it he includes the amount of tax paid on it to its price. Thus, the price paid by the buyer for the commodity includes the tax amount. Hence, impact of the tax is on the seller but the incidence is on the buyer. Other examples of indirect tax are excise duty, import duty, export duty. entertainment tax, etc. In the case of indirect taxes, the govemment really wants that the ultimate consumers pay the tax.

To distinguish the one form of tax from the other, a few definitions are available. Dalton defines a direct tax as one which is actually paid by the person on whom it is imposed. This signifies that

the indirect tax should be defined as that which is paid by the person on whom the tax is not imposed. In the words of Taylor, the terms, "direct' and 'indirect' tax are finally distinguishable in meaning only in terms of shiftability. Direct taxes are not shifted, while indirect types are. John Stuart Mill has defined a bit differently. According to him, a direct tax is demanded from the very person who, it is intended or desired, should pay it. Indirect taxes are those which are demanded from one person in the expectation and intention that he shall indemnify himself at the expense of another. One more interpretation is given by De Viti de Marco who emphasises that direct tax strikes the citizen's income at the moment of its production. According to this, therefore, direct taxes are levied at the time when income is earned. From the above varieties of interpretation, it is clear that there is no
reliable specific definition which will preciously distinguish between the two types of taxes.

Direct taxes are taxes that are levied on individuals or entities directly based on their income or wealth. Examples include income tax, corporate tax, and property tax. These taxes are directly paid by the person or entity that is being taxed.

Indirect taxes, on the other hand, are taxes that are not directly levied on individuals or entities but are instead collected from the sale or consumption of goods and services. Examples include value-added tax (VAT), sales tax, and excise duty. These taxes are typically passed on to consumers through the prices of goods and services, other taxes may be considered as direct taxes.

Merits and Demerits of Direct Taxes.

Merits of direct taxes:

The supporters of direct taxes claim that the
following are advantages of these taxes.

(1) Ability to pay.

Direct taxes are associated with ability to pay or equity principle of taxation. Equality of sacrifice in tax payment can be obtained through progressive rates of taxation. Direct taxes are progressive and, hence, equitable. This advantage cannot be achieved through indirect taxes like those on commodities, because the tax-induced increased prices have to be paid by the rich and the poor alike. As against this, direct taxes like income tax will fall more heavily on the rich than on the poor.

(ii) Distributive justice. Direct taxes are the most effective means of reducing inequality of income distribution in the society. By allowing exemption limit for the purpose of tax at low level of incomes, wealth or property, and, by levying relatively higher rates of taxation as the tax base rises by slabs, the direct taxes have an in-built mechanism of reducing the gap between poverty and prosperity. Some direct taxes like death duties and inheritance tax are levied to achieve the purpose of distributive justice only, since the yield from them does not much justify their high cost of collection.

(iii) Certainty.

The canon of certainty is satisfied by the direct taxes. In case of these taxes, the public authority knows the amount of tax revenues that would come to the exchequer and, hence, can plan its expenditure. The tax-payers also know the amount they have to pay to the govemment. Thus, there is certainty on both sides of the tax payers and tax gatherers. This advantage is not available with indirect taxes.

(iv) Elasticity. Another important merit of direct taxes is that they are Easily adjustable to the revenue needs of the economy. If the state suddenly needs larger funds in an emergent situation, the yield from direct taxes like income tax or wealth tax or estate duty can be easily raised by raising the rate of taxation. Similarly, if the economy suffers from deficiency of demand or less than necessary purchasing power, disposable income of the tax payers can be increased by reducing the rates of taxes. Moreover, the tax yield automatically increases or decreases according as the tax payer's ability to pay rises or falls. Thus, direct taxes conforms to the canon of elasticity.

(v) Economy.

Direct taxes are claimed to be economical in so far as cost of collection of the revenue is concerned. Since direct taxes are progressive, their cost of collection does not necessarily rise with increase in the tax yield. When income or wealth rises and collection of tax automatically goes up, there is no need for additional employment of tax officials. They are economical also because most of the taxes are collected at source. An employer, for example, will collect income taxes from his employees out of their salary incomes. This means a great economy of expenditure on tax collection.

(vi) Productivity.

Direct taxes are undoubtedly very productive in the sense that the yield from them automatically increases along with the growth of society. As the community grows with population, larger incomes from agriculture and industry and with all types of prosperity of the dynamic economy, the yield from direct taxes will automatically increase. Thus, productivity is an important virtue of direct taxes.

(vii) Civic consciousness. Direct taxes have a great educative value for the tax payers. As the tax payer knows that he has to pay the amount, he becomes conscious that he is not made to pay more than the due amount. Since he feels pinch of tax payment, he will also necessarily be conscious about how the tax payers' money is utilised by the govemment. The tax payer claims the right to know how the public authority spends his money. he approves or criticises the way of spending and suggests measures of correcting or improving the expenditure policy of the government. Such educative value develops in the tax payer a strong civic sense and civic responsibility.

(viii) Easy remedy of adverse effect.

If there is any harmful effect of direct taxes, it can be easily noticed and remedied. If, for example, high rates of progressive income tax adversely affects the capacity and willingness of work and save in the society, the result will be a decrease in the rate of productivity and saving which can be widely noticed. The public authority may, therefore, immediately introduce corrective measure of tax concessions n order to counter this ailing situation.

(ix) Undisturbed price ratio.

Though direct taxes reduce the disposable come of the tax payer, it does not affect his choice pattern because the prices of goods and services remain unchanged. Therefore, the pattern of choice as explained by the ratios among goods and services purchased will remain undisturbed. This is very important on ground of economic welfare It follows that the pattern of resource allocation in the economy is not distorted by direct taxes even though purchasing capacity is reduced

(x) Efficient tax collection. Finally, it is claimed that there is no leakage of tax revenue in the case of direct taxes; and, if there is any, it is the least This is because the govemment has the knowledge of the amount that is to be collected from different tax payers. The payment is made directly to the public authority and, hence, is there the least scope of leakage of the tax revenue.

Demerits of Direct Taxes. A number of disadvantages are associated with direct taxes. The most important demerits are the following:

(1) Inconvenient.

The primary disadvantage of direct taxes is that they are inconvenient on the part of tax payers. It is not only that the tax payer has to pay tax in lump sums at intervals, though he gets his income in slices, but also that he has to submit detailed accounts of income, wealth. property, etc. and fill up the statements of taxes every year. Several other papers and certificates have to be submitted along with statement. Most of the people do not understand the complex system and laws of tax payment and has to hire the services of professionals.

(ii) Tax on honesty.

A serious defect associated with direct taxes is that they are a tax on honesty. If false account is submitted, the tax burden may be very light. Under such circumstances, there is a great temptation of many people to avoid tax payment by submitting false accounts. It means that more honest a tax payer is, heavier will be the burden of tax on him. Thus, direct tax acts as a counter-force to honesty in payment of taxes.

(iii) Large scale evasion. The tendency to evade tax is very large particularly when the tax rates are highly progressive. The filing of false statement of incomes and wealth through which the direct taxes are evaded is so widely practised that it is not possible on the part of tax administration to detect more than few cases. Moreover, the tax laws are so numerous and difficult to grasp and the process of tax payment so complex that many honest tax payers, getting afraid of the task, become involuntary tax evaders

(iv) Arbitrary.

The general guideline for direct taxes is that the levy be based on ability to pay of the tax payer. However, in the absence of any objective index or measuring ability to pay, the authority either overestimates or underestimates the payable amount of tax. Tax rates are often whimsically and arbitrarily fixed. Progressivity which is generally applied in the case of direct taxes cannot be scientifically structured and, therefore, taxes are either more or less than the justified amount.

(v) Unpopular.

It is argued that direct taxes cannot be popular among the tax payers. A tax payer knows what amount he is to pay. He is likely to be more sensitive to the money burden of tax. Therefore, resistance comes from the tax payer. Whenever the rates of taxes are revised upward or some new taxes are introduced, the efforts are resisted by the tax payers The resistance sometimes becomes violent and might generate political problems.

(vi) Unable to touch all sections.

Direct taxes are unable to touch all sections of people. In every country, people with poor incomes are exempted from payment of these taxes. In underdeveloped countries where the vast majority of people are poor, direct taxes can reach only a few earning sections. This is the reason why tax yield from these sources is poor in these countries. Moreover, the evasion of taxes is so widespread that the actual revenue mobilisation remains much below the tax potentiality.

(vii) Disincentive to work, effort and saving.

Since a part of the income, wealth or property is taken away by these direct taxes, the tax payer becomes conscious of the fact that his earnings are shared by the tax authority. His incentive to work is diminished thereby. He might think in terms of reducing his supply of work effort and enjoying the time saved as leisure hours, that is, he would substitute leisure for income. Moreover, as a part of the earnings is reduced, the incentive and capacity to save is also reduced, particularly when the rates of taxation are steeply progressive,

(viii) Possible adverse effect on economic development.

Economic development is adversely affected when production, saving and investment are retarded. We have already seen that direct taxes badly affect the supply of work effort and saving. Moreover, those taxes like death duties will discourage investment in property accumulation. Low saving will mean low investment which is the cause of reduction in economic welfare and development. If public authority wants to impose steeply progressive taxation in order to hasten the developmental process, it is often counterproductive particularly in low-income economies.

(ix) Difficult to administer. Administration of direct taxes is largely complex. The tax liability of different persons is different and has to be separately assessed. Moreover, since there is large scale evasion of taxes, an additional set of staff is to be maintained to prevent leakage of revenue. Because of all this, it is not only that direct taxes are difficult to administer but also that their administration itself is expensive.

(x) Unable to generate universal civic sense.

A direct tax is not imposed on every one. A large section of the people whose income or wealth or property falls below a stipulated minimum, need not pay any direct tax. If

We take in to account all types of deduction of expenses for the purpose of calculating disposable income, a large number of people would come outside the tax net. So, taxation is unable to arouse civic consciousness and responsibility among them who are less likely to take interest in how the tax revenues are earned or public expenditures incurred.

(xi) Capacity to reduce inequality is doubtful.

The claim of the supporters of direct taxes that they lead to reduction of inequality of income and wealth is based on the assumption that necessary progressive rate structure of taxation can be correctly framed. In fact, however, determination of the proper degree of progression is not possible and, as such, direct taxes fail to achieve any remarkable correction to the prevailing level of inequality in the society

Merits and Demerits of Indirect Taxes.

Merits of Indirect Taxes.

The most important arguments in favour of indirect taxes are the following

(1) Means of reaching the poor.

The most important merit of indirect taxes is that they are the only means of reaching the poorer classes. An indirect tax like a commodity tax may mean a small contribution when the commodity purchased is small amount. It is in order of democratic spirit that every person, rich or poor, contribute something towards the maintenance of the state. Direct taxes cannot realise this end, since they can reach only few people. It is only indirect taxes that bring all people within the tax-net.

(ii) Comparatively less unpopular.

While a mild dose of indirect tax is not at all unpopular, even a steep levy as compared to direct taxes is comparatively less unpopular. Since an indirect tax remains hidden behind the price of the commodity, the tax payer does not feel the burden of the tax and, hence, does not resist tax payment as in the case of direct tax. Introduction of new indirect taxes or their upward revision of rates often go unnoticed by the tax-payers.

(iii) Convenient.

Indirect taxes satisfy the canon of convenience. Tax payers find them convenient not only because the tax is collected along with the prices of the commodities purchased and no statement of account is to be submitted as in the case of direct taxes, but also because the tax payments are in driblets with small amounts and not as a lump sum annual tax. These taxes are convenient also for the government, because it collects them not from the innumerable commodity-buyers but from the businessmen and producers who, in turn, collect the same from buyers.

(iv) Difficult to evade. Unlike in the case of direct taxes where evasion takes place in large scale, it is difficult to evade the indirect taxes. In fact, the prices fixed for commodities include the taxes on them and, hence, the buyers cannot evade the tax. The means to evade these taxes at either smuggling of goods or unlicensed and unaccounted production and sale But if the enforcement machinery of the government is efficient, such illegal activities cannot take place. The only way to avoid a commodity a is to go without consumption of that commodity, which is often difficult

(v) Capacity of being wide-spread Indirect taxes can be spread over a wide range.

Heavy taxation at one point, as is often found in case of direct taxes, may produce harmful effect like discouragement to productivity and saving. Unlike this, indirect taxes can be spread over wide areas of production and sale. Large collection of yield can be made even with low rates of taxes and, hence, no harmful effects will come to the taxpayers and the economy.

(vi) Economy in collection. Indirect taxes are easy to collect. The public authority need not scrutinise accounts of the tax-payers as in the case of direct taxes and contact each tax payer for the purpose of collection. Collection takes place automatically when goods are bought and sold. Hence it is argued that the administrative and establishment cost of raising the Indirect taxes can be kept to the minimum.

(vii) Canon of equity. Indirect taxes usually satisfy the canon of equity in that they are the only means of bringing all sections of society within the tax net. Government can tax heavily the luxury consumption commodities and make the rich people pay more taxes, while the commodities of common consumption, more particularly by poor people, may be exempted or lightly taxed. Thus, an equity structure can be framed in the system of indirect taxation.

(viii) Canon of productivity. Indirect takes are highly productive of revenue. Since these takes are imposed on commodities and since every person consumes one or the other kinds of commodities, the payments of tax along with the prices become a considerably large aggregation. In case of need, the govemment can substantially increase the tax yield by imposing higher rates of taxation on essential articles for which demand is more or less inelastic.

(ix) Flexibility.

Indirect taxes are highly flexible in nature. When necessity arises for larger resources, larger number of articles can be easily brought within the coverage of indirect taxation. Similarly, if the situation needs either reduction of tax rates or narrowing down of the tax coverage. it can be easily met. Not unlike direct taxes, when the level of economic activity and as income increases, the amount of yield from these indirect taxes will automatically rise. With fall in the income, on the other hand, consumption activity and, hence, tax yield will fall. Thus, indirect taxes are flexible in nature.

(x) Capable of being progressive.

Since indirect taxes are not general in nature but selective, the government may infuse into the system a considerable degree of progression by choosing those articles which are used by the rich people and imposing high rates of taxation, while allowing the common articles, generally consumed by poor people, to remain outside the purview of indirect taxes. If the tax structure is designed in this way, the elements of progression will be accommodated by the system of indirect taxes.

(xi) Saving and capital formation.

Since indirect taxes directly raise the commodity prices, consumption is bound to fall as a result of the tax. The reduced consumption is saving which is accumulated to the public exchequer in the form of tax yield. This is the most important form of capital stock particularly in the underdeveloped countries where private capital is small. It is the capital accumulation which finances economic development.

(xii) Reallocation of resources.

Indirect taxes can be used as an efficient instrument of achieving desirable diversion of economic resources. By imposing heavy taxation on non-essential and luxury consumption goods, the demand for them can be slackened and production reduced. This will release resources so long locked up on the production of luxury goods. The released resources will be diverted to the production of essential and commonly consumed commodities which are either lightly taxes or completely untaxed.

(xiii) Balanced regional development.

The govemment can influence diversion of economic resources from more developed region to less developed region through indirect taxes. If taxes are imposed heavily on commodities produced in the developed region and tax concessions are allowed for them in the underdeveloped region, then resources will be diverted from the former areas to the latter. Investment being more remunerative in underdeveloped regions as a result, production centres will come up, new market will develop and the region will be gradually advanced economically.

(xiv) Influence on technology adoption. Because indirect taxes are highly selective in regard to both rate of tax and coverage of commodity. they can be used to influence adoption of suitable technology. If the public authority, for example, wants that the manufacturers use labour-intensive technique of production, it can be achieved by taxing heavily the output produced by capital-intensive method and the producer's capital goods used in this process of production In the same way, the adoption of capital intensive method can be influenced by taxing heavily the goods produced under labour intensive technology.

(xv) Check on harmful consumption.

Lastly, indirect taxes can be used as a powerful devise in checking production (excise duty) and consumption (sales tax) of tobacco and tobacco products, wine and other intoxicants etc., which will make these commodities very costly and will impose a check on such harmful consumption. This is directly related to social welfare Demerits of Indirect Taxes.

Though indirect taxes have many advantages, they are not an unmixed blessing. There are a number of demerits, the more important of which are the following.

(1) Regressive and inequitable.

The most important defect of indirect taxes is that they are regressive in character, that is, they fall more heavily on the poor. Since the same amount of tax has to be paid for a certain unit of commodity by the rich and the poor alike, the tax as a percentage of earing is much larger for the poor than for the rich. Hence, Indirect taxes are highly regressive and do not satisfy the canon of equity.

(ii) Uncertain.

Indirect taxes do not conform to the canon of certainty too. Unless necessary commodities are taxed, the yields remain grossly uncertain. The goods which are non-necessaries have high elastic demand and when tax-induced prices go up, their consumption will fall and, hence, tax yield will decline. Moreover, the amount of tax revenue which depends on consumption expenditure of the people cannot be ascertained by the govemment because consumption expenditure cannot be correctly estimated. Thus, these taxes are highly uncertain and, hence, a poor guide to the budget making exercise of govemment.

(iii) Unreasonable price rise.

Though, statutorily, the price should rise by the amount of tax only, the buyers, in fact, have to pay prices that rise by larger amount than the tax. There are two reasons for this. First, a fraction of the money unit is either difficult to calculate or conveniently ignored. So every middle man in the course from producer to the ultimate consumer tends to charge more than the tax. The second reason is that dishonest sellers can easily cheat the simple and uninformed buyers by charging larger amount than the actual tax.

(iv) Uneconomical. Indirect taxes are, again, uneconomical, because it is necessary that every source of tax yield has to be properly guarded and, hence, a huge size of staff has to be maintained. The most important reasons of administrative expenditure in this connection are anti-evasion efforts, detection of smuggling, prevention of unlicensed production and sale, realisation of arrears of taxation and collection of the taxes. As a result, the cost of collection of tax becomes heavy.

(v) Unable to develop civic consciousness.

Many people are unaware of the indirect tax that they pay along with the prices. Since the tax remains concealed within the price of commodities, the tax payers do not feel the pinch of payment. Therefore, they do not remain conscious about how their money is used by the government. Since the tax burden is not apparently experienced, the tax payers do not take interest in public expenditure activities. Thus, indirect taxes are unable to develop civic consciousness among the tax payers

(vi) Tax evasion.

Not unlike direct taxes, indirect taxes are also evaded considerably. The producers may evade the excise duty by understating production and traders may do so by selling goods without issuing bills or receipts, that is, by keeping the sales of product unaccounted. Smuggling of goods also escape taxation. If the administrative machinery becomes corrupt. then the evasion of indirect taxes may go up to any extent.

(vii) Inflationary.

Indirect taxes often lead to inflationary process. Indirect taxes are a forced saving device. Instead of reducing purchasing power for the purpose of saving, these taxes raise the prices of different goods. The rise in prices has a chain reaction. When the price level rises. wages are revised upward. This paves the way for the producers to raise the prices of their product since their cost of production rises. Thus, indirect taxes are generally inflationary and a method of forced saving.

(viii) Fall in consumption. Because indirect taxes raise the prices of commodities directly, the consumption of lower income groups is bound to be affected. Reduced consumption of essential commodities, as and when they are taxed, worsens health and efficiency of millions of people and. hence, their productivity falls.

(ix) Economic burden. Indirect taxes have two kinds of economic burden. When these taxes are imposed, they fall also on those commodities which are the product of a decreasing cost industry. Tax on such commodities will reduce production and the price will rise by more than the tax. The other type of burden arises when industrial development is discouraged because the taxed commodities include those that are used as industrial raw materials. A rise in the price of raw materials (due to tax on them) raises cost of production and, hence, discourages industrial efforts.

(x) Limited coverage of taxation.

Though the public authority is free to impose indirect tax on any number of commodities, in practice, however, the coverage of tax always

remains limited .One important reason is that the major part of consumption expenditure is made on necessary commodities which are normally not taxed. Another reason is that taxes can not be imposed on those commodities which are transacted under barter terms. The problem is considerable particularly in underdeveloped countries where the size of non-monetised sector is often large.

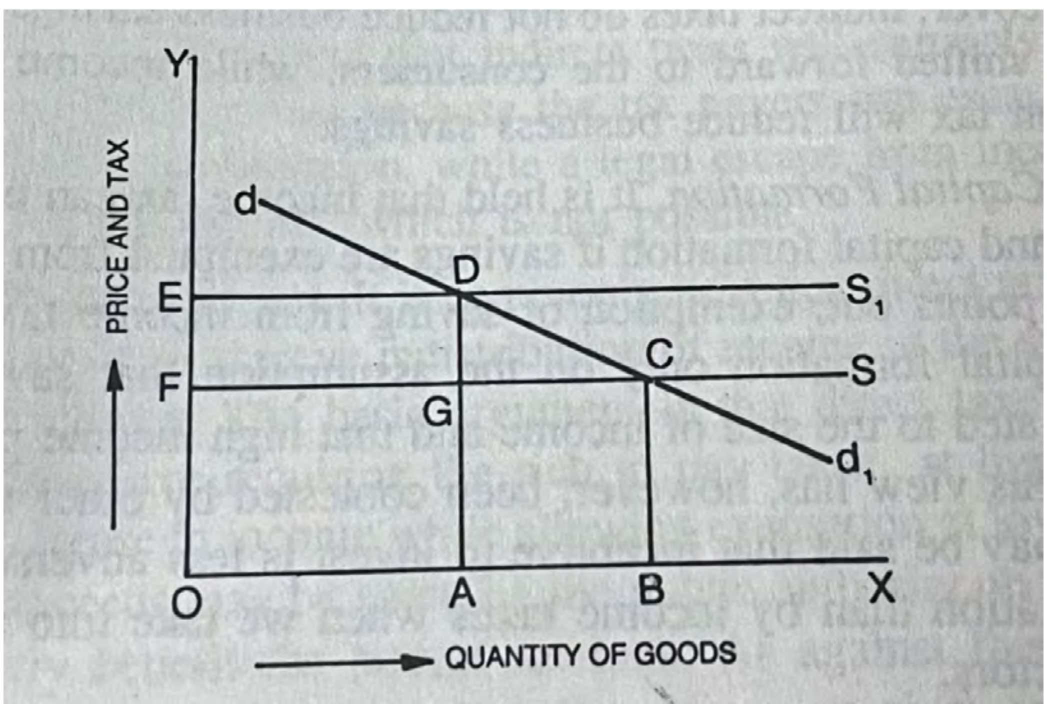
(xi) Distortion of consumer choice.

Indirect taxes are generally partial outlay taxes .Therefore, when one commodity is used in preference to the other, the price ratio between the two commodities undergoes a change. The consumer substitutes non-taxed product for the taxed product. Since the choice pattern (among commodities) of consumer is thus disturbed by the tax, it reduces the aggregate welfare in the community.

(xii) Loss of consumers' surplus.

If the goods having perfectly elastic supply but relatively more elastic demand are taxed, then loss of consumers' surplus becomes more than the tax revenue raised. Thus, as shown in the figure below ,the supply curve is FS, demand curve is dd1, and the tax per unit is EF, then the post-tax supply curve rises to ES1 and the price of the commodity increases from BC to AD. After the tax is imposed, loss of consumes surplus (CDEF) is more than the tax revenue raised (DEFG).

Figure:



Relative Superiority Between Direct and Indirect Taxes.

Facing the question whether direct or indirect taxation is superior to the other ,both can be compared.

Comparing the two:

Incidence: Direct taxes are borne by the person/entity on whom they are imposed, while indirect taxes are often passed down the supply chain and ultimately paid by consumers.

Progressivity: Direct taxes can be designed to be progressive, meaning that higher-income individuals pay a larger portion of their income in taxes. Indirect taxes are often regressive, affecting lower-income individuals more as they spend a higher proportion of their income on taxed goods.

Economic Impact: Indirect taxes can impact spending patterns and consumption behaviour, whereas direct taxes can influence work and investment decisions. Both can have implications for economic efficiency and growth.

Ease of Collection: Indirect taxes are generally easier to collect because they are levied at the point of sale. Direct taxes require more complex systems to assess and collect based on income or wealth.

Equity: Direct taxes are often seen as more equitable as they can be tailored to individual circumstances. Indirect taxes can disproportionately affect those with lower incomes.

Government Revenue: Indirect taxes tend to be more stable and predictable in generating revenue for the government compared to direct taxes, which can fluctuate with economic conditions.

The superiority of one over the other depends on the policy goals of a country and the desired distribution of the tax burden. Direct taxes are considered more progressive and can be designed to address income inequality. However, they can also lead to tax evasion and disincentives for high-income individuals. Indirect taxes are simpler to administer and can promote consumption and economic growth, but they can place a larger burden on lower-income individuals. The ideal tax structure often involves a mix of both types of taxes, carefully balanced to achieve economic and social objectives.

6.11 Summary

After making a detailed analysis of direct and indirect taxes ,the question arises as to which tax is most suitable for the present capitalist setup. However , progressive tax system(direct tax) is being considered most appropriate. But on the other hand, Adam Smith's first maxim of taxation was that ,the subject of every state which ought to contribute towards the support of the government as nearly as possible, in proportion to their respective abilities. It is in proportion to the revenue which they respectively enjoy under the protection of the state. It gives the opinion that what every individual ought to contribute should be measured with reference to the income only. This undoubtedly gives sole emphasis upon proportional contribution and progressive taxation, if the increase in ability is more rapid than the increase in income. Here we must bear in mind that Adam Smith was quite unaware of the recent developed principle of diminishing utility resulting in proportion to their respective abilities and it has an identical meaning with "in proportion to the revenue which they respectively enjoy". In short, we

can conclude the discussion that by the close of nineteenth century, there was unanimous opinion for the support of fairness or justice in taxation. However, according to Prof. Taylor, direct taxes are progressive and hence superior to other forms of taxation due to its productivity, promotion of stability with growth and optimum social allocation of resources. Therefore, in the modern democratic system, progressive tax under direct taxation is considered as the best form of tax which can bring about equity in the distribution of tax burden.

6.12 Key Words

Public revenue	Income of public authorities
Direct taxes	Impact and incidence fall upon the same person.
Indirect taxes	Impact and incidence fall upon different persons
Progressive tax	Tax rate increases faster than increase in income
Tax revenue	Income from various types of taxes
Fee	A payment to get certain public services
Tax	A compulsory payment

6.13 Model questions

1. Critically explain the Ability to Pay theory of taxation.

2. What are the merits and demerits of direct tax?

3. Explain the theory of maximum social advantage.

4. Write short notes on:

    a. Canons of taxation

    b. Sources of public revenue.

    c. Indirect taxes.

6.14 Additional Readings

1. Principles of Public Finance by H. Dalton.

2.The Theory of Public Finance by R A Musgrave.

3. A Study of Public Finance by A C Pigou

4.Public Finance and Fiscal Policy by R K Choudhury.

5.Public Finance by R K Lekhi.

6.www.rbi.org.in

Unit 7. Theories of optimal Taxation: Excess burden of taxes, Theory of measurement of Deadweight losses

Structure

7.1 Learning Objectives

After going through this unit, the learners will be able to understand:

- Optimum Taxation
- Deadweight losses
- Measures to calculate deadweight losses
- Excess burden of taxes.

7.2 Introduction.

Optimal taxation is a branch of economics that seeks to determine the most efficient way for governments to collect revenue while minimizing the negative impact on economic behavior and welfare. This field of study delves into the complex relationship between taxes, government revenue, and individual incentives. Two prominent theories in optimal taxation are the Ramsey-Boiteux approach and the Atkinson-Stieglitz approach.

7.3 Optimal Taxation Theories.

There are various theories of optimal taxation which are discussed below.

Ramsey-Boiteux Approach:

The Ramsey-Boiteux approach, named after economists Frank Ramsey and Pierre Boiteux, focuses on finding a tax structure that maximizes social welfare while considering the distortions caused by taxes. The theory suggests that taxes should be levied in a way that minimizes the negative impact on individual choices and economic efficiency. This involves taxing goods and services with lower price elasticities less heavily, as consumers are less responsive to price changes for these items. Conversely, goods with higher price elasticities should be taxed more, as consumers are more sensitive to changes in their prices.

Atkinson-Stieglitz Approach:

The Atkinson-Stiglitz approach, developed by economists Tony Atkinson and Joseph Stieglitz, emphasizes the importance of addressing income inequality through taxation. This theory posits that optimal taxation should take into account not only efficiency considerations but also considerations of equity or fairness. The approach suggests that higher-income individuals should be taxed more heavily in order to redistribute income and reduce inequality. However, this approach also acknowledges that excessively high taxes can discourage productivity and economic growth, so a balance between redistribution and economic incentives is crucial.

The theories of optimal taxation highlight the trade-offs between economic efficiency and equity. The Ramsey-Boiteux approach aims to minimize the negative behavioral changes caused by taxes, while the Atkinson-Stieglitz approach focuses on achieving a fair distribution of income. These theories often require policymakers to weigh the potential benefits of reduced distortions against the need to address societal inequalities.

Limitations.

In practice, implementing optimal taxation is challenging due to factors like incomplete information about individual preferences, varying elasticities of demand, and the dynamic nature of economies. Additionally, finding the right balance between taxation levels, types of taxes, and their impact on economic behavior is a complex task. Policy decisions often involve considering real-world factors and may involve a combination of different taxation strategies to achieve both efficiency and equity goals.

7.4 Equity in Optimal Taxation.

Equity plays a crucial role in shaping an optimal tax structure for a society. It refers to fairness and justice in the distribution of the tax burden among individuals and businesses.

Importance of Role.

Various points regarding the role of equity in optimal taxation are analyzed as follows.

1. Income Redistribution: One of the primary purposes of taxation is to redistribute wealth and income. An equitable tax system ensures that those with higher incomes contribute a proportionally larger share of their earnings, helping to reduce income inequality. This can be achieved through progressive taxation, where tax rates increase with income levels.

2. Horizontal and Vertical Equity: Horizontal equity means that individuals in similar economic circumstances should be treated similarly, while vertical equity implies that those with more resources should contribute more to the tax system. Striking a balance between these two principles is crucial for achieving fairness.

3. Minimizing Tax Avoidance and Evasion: An equitable tax system discourages tax avoidance and evasion, as individuals are less likely to engage in such activities when they perceive the tax burden to be fairly distributed. This ensures that all members of society pay their fair share.

4. Social Cohesion: A just tax system promotes social cohesion by demonstrating that everyone is contributing to the common good. This can foster a sense of shared responsibility and solidarity among citizens.

5. Public Perception and Trust: Equity in taxation enhances public trust in the government and its policies. When people believe that the tax system is fair, they are more likely to comply willingly, which leads to higher levels of tax collection and reduced tax evasion.

6. Efficiency and Economic Growth: An equitable tax system can have positive effects on economic efficiency and growth. When the burden is distributed fairly, it can reduce distortions in economic decision-making and encourage productive activities.

7. Political Stability: An unjust tax system can lead to social unrest and political instability. Ensuring equity in taxation helps maintain social harmony and prevents resentment among citizens.

8. Complexity and Administrative Costs: Striving for equity can sometimes lead to complex tax codes and administrative challenges. Balancing fairness with administrative efficiency is essential to avoid unnecessary burdens on taxpayers and government resources.

9. Global Trends and International Comparisons: Equity considerations are often influenced by global trends and international comparisons. Countries may adjust their tax policies to align with prevailing notions of fairness in the global context.

Hence, equity plays a crucial role in designing an optimal tax structure as it ensures fairness and justice in distributing the tax burden among different individuals and groups in society. An equitable tax system seeks to treat taxpayers fairly based on their ability to pay and their economic circumstances.

Several factors determine equity in taxation which are as follows.

1. Horizontal Equity: This principle states that individuals with similar economic situations should be taxed equally. It prevents discrimination between taxpayers with similar income levels, ensuring that they contribute proportionately to government revenue.

2. Vertical Equity: Vertical equity focuses on taxing individuals based on their ability to pay. This means that those with higher incomes or more incredible wealth should contribute a larger share of their resources to taxes. This principle promotes a progressive tax system that helps to reduce income inequality.

3. Ability to Pay: Taxation should be based on individuals' ability to pay rather than just their income. Factors such as assets, consumption patterns, and overall financial circumstances should be considered to determine a person's true capacity to bear the tax burden.

4. Benefit Principle: This principle suggests that taxes should be levied in proportion to the benefits received from public goods and services. Those who benefit more from government services should contribute more to fund them. For example, property taxes can be seen as applying this principle when they fund local services like roads and schools.

5. Simplicity and Transparency: An equitable tax system should be easy to understand and transparent. Complex loopholes and deductions can lead to unequal tax burdens and undermine the fairness of the system.

6. Social and Economic Goals: Equitable taxation can also be used to achieve broader social and economic goals, such as reducing poverty and promoting economic growth. Targeted tax policies, such as earned income tax credits, can help achieve these goals by providing relief to lower-income individuals.

7. Tax Shifting: Care should be taken to ensure that taxes do not disproportionately burden vulnerable groups or lead to unintended consequences, such as higher prices for essential goods and services.

8. Tax Evasion and Avoidance: Equity can be compromised if specific individuals or corporations find ways to evade or avoid taxes, as this shifts the tax burden onto compliant taxpayers. Effective enforcement mechanisms are essential to maintain equity.

In summary, equity in an optimal tax structure is essential to ensure that the tax burden is distributed fairly, taking into account individuals' ability to pay and promoting social and economic goals. Factors such as horizontal and vertical equity, ability to pay, the benefit principle, simplicity, and addressing tax evasion contribute to achieving equity in taxation. In conclusion, equity is a fundamental pillar of an optimal tax structure. It promotes a sense of fairness, social cohesion, economic efficiency, and political stability. However, achieving equity can be complex, and trade-offs may be necessary to balance fairness with administrative simplicity and economic growth.

7.5 Excess Burden and tax distortions

The excess burden of taxation, also known as the deadweight loss, refers to the economic inefficiency that arises when taxes are imposed on goods or services. It occurs because taxes can lead to changes in consumer and producer behavior, which in turn can result in a loss of overall economic welfare beyond the revenue collected by the government.

Opinions on the excess burden of taxation vary. Economists generally agree that excessive taxation can lead to deadweight loss, reducing economic activity and overall welfare. However, there might be differing views on the magnitude of this effect and the specific policies that can mitigate it.

There are several types of distortions associated with excess burden:

1. Substitution Effect:

When prices of goods change due to taxation, consumers might shift their consumption choices toward untaxed goods, even if those goods are not the most preferred. This distorts consumer behavior.

2. Income Effect:

Taxes can reduce individuals' real income and purchasing power. This can lead to reduced demand for goods and services, further affecting market equilibrium.

3. Supply-Side Effect: Producers might reduce their output or shift production to sectors that are less taxed. This can lead to underproduction and reduced overall economic output.

4. Deadweight Loss:

This is the net loss of total surplus in the market due to the changes in behavior caused by the tax. It represents a reduction in economic efficiency.

5. Laffer Curve Effect:

The Laffer curve illustrates the relationship between tax rates and tax revenue. At very low and very high tax rates, government revenue may be low due to decreased economic activity or tax avoidance.

Policies to reduce the excess burden of taxation include:

1. Tax Efficiency:

Designing taxes that minimize behavioral changes. For example, broad-based consumption taxes like value-added tax (VAT) can be less distortionary than specific taxes on certain goods.

2. Tax Neutrality:

Avoiding policies that favor certain industries or behaviors. This can help prevent misallocation of resources.

3. Tax Subsidies:

Offering subsidies on certain goods can encourage consumption and offset the negative impact of taxes.

5. Tax Reforms:

Periodically reviewing and updating tax structures to ensure they align with economic realities and minimize distortions.

In conclusion, the excess burden of taxation reflects the economic inefficiencies caused by taxes that alter consumer and producer behavior. Opinions on its impact may vary, but understanding the various types of distortions and implementing efficient tax policies can help mitigate these effects.

7.6 Deadweight Losses: Causes and Effects.

Deadweight loss refers to the economic inefficiency that arises when the equilibrium of a market is not at the optimal level. It occurs when the quantity of a good or service produced and consumed is not at the point where the supply and demand curves intersect. This results in a loss of potential economic welfare that could have been generated if the market were operating efficiently.

There are several causes that can lead to deadweight loss:

1. Price Controls: Government-imposed price ceilings (maximum prices) or price floors (minimum prices) can disrupt the equilibrium, leading to surpluses or shortages in the market. This can result in deadweight loss as transactions that would have otherwise occurred are prevented.

2. Taxes and Subsidies: Taxes imposed on goods or services can increase their prices, reducing the quantity consumed and produced. Similarly, subsidies can distort the market by artificially encouraging consumption and production beyond the optimal level, leading to deadweight loss.

3. Monopoly Power: Monopolies have the ability to restrict output and raise prices above the competitive equilibrium. This reduces consumer surplus and can lead to deadweight loss as fewer goods are being produced and consumed compared to the competitive market scenario.

4. Externalities:

Positive or negative externalities (spillover effects) can disrupt the balance between private and social costs or benefits. This misalignment can lead to production or consumption levels that are not socially optimal, resulting in deadweight loss.

5. Information Asymmetry: When one party in a transaction has more information than the other, it can lead to market failures. For example, in the case of adverse selection or moral hazard, market participants might make suboptimal choices, causing deadweight loss.

6. Trade Restrictions:

Tariffs, quotas, and other trade restrictions can limit the ability of markets to reach efficient outcomes by impeding the flow of goods across borders, leading to deadweight loss.

7. Market Power:

Oligopolies or monopolistic competition can result in prices higher than the competitive equilibrium, reducing consumer surplus and causing deadweight loss.

6. Lack of Competition:

In markets with limited competition, producers might not have strong incentives to minimize costs or innovate, leading to inefficiencies and deadweight loss.

In essence, deadweight loss highlights the inefficiencies caused by various market distortions that lead to quantities produced and consumed diverging from the optimal level. These distortions can result from factors such as price controls, taxes, market power, and externalities, ultimately reducing overall economic welfare.

7.7. Measures to calculate deadweight losses

Deadweight loss is a concept in economics that represents the inefficiency caused by market distortions such as taxes or subsidies, leading to a loss of total economic welfare. There are various measures used to calculate deadweight loss, each with its own limitations. Here's an overview:

1. Graphical Approach

This involves visually representing supply and demand curves before and after a market intervention, such as a tax. Deadweight loss is the triangular area between the two curves and the horizontal lines that represent the new equilibrium quantity.

Limitations: This approach assumes simple supply and demand relationships, which might not accurately represent complex real-world markets. It also requires accurate data to plot the curves.

2. Consumer Surplus and Producer Surplus Approach:

Deadweight loss can be calculated by comparing the consumer and producer surplus before and after the intervention. The difference between the surpluses represents the lost welfare.

Limitations: This method relies on assumptions of perfectly competitive markets and might not apply well to markets with monopolies, oligopolies, or externalities.

4. Harberger's Triangle Approach:

This method calculates deadweight loss as half the area of the triangle between the original equilibrium quantity, the new quantity after the intervention, and the demand curve.

Limitations: It simplifies complex market dynamics and assumes a linear demand curve, which might not hold true in all cases.

5. Comparative Statics Approach:

This method involves comparing the equilibrium quantities and prices in a scenario with the intervention and a scenario without it. The difference in consumer and producer surplus indicates a deadweight loss.

Limitations: It assumes that the economy moves smoothly from one equilibrium to another, ignoring potential disruptions.

6. Integrating Marginal Cost Curves:

By integrating the marginal cost curves of the supply and demand before and after the intervention, the area between these curves indicates deadweight loss.

Limitations: This approach assumes that marginal cost curves are readily available and accurately represent cost structures.

7. Calculating Welfare Change:

Deadweight loss can also be calculated by comparing the overall economic welfare before and after the intervention.

Limitations: Accurately measuring and aggregating all aspects of welfare change can be challenging.

8. Calculating Elasticities:

By using price and quantity elasticities, deadweight loss can be estimated based on changes in supply and demand responsiveness.

Limitations: This approach requires accurate elasticity estimates and assumes linear relationships between price and quantity changes.

Keep in mind that calculating deadweight loss is often an approximation due to the complex nature of real-world markets. Assumptions about market structures, behavior, and data availability can introduce significant limitations to these methods.

7.8 Summary

Overall, the theories of optimal taxation provide valuable frameworks for understanding how governments can design tax policies that promote economic welfare and social justice with minimum deadweight losses or economic distortions. However, achieving these goals requires a nuanced approach that considers the unique characteristics of each economy and society.

7.9 Key Words

Optimal taxation. - A most efficient way to collect taxes minimizing negative effects.

Deadweight losses - Net loss in total welfare due to change in behavior of taxes.

Equity in optimal taxation. - Fairness and justice in the distribution of tax burden.

Excess Burden - Economic inefficiencies caused by taxes altering producers' and consumers' behavior.

7.10 Model Questions

1. Analyse different theories of optimal taxation with practical difficulties.

2. What do you mean by equity in optimal taxation? Elaborate its importance.

3. Explain what is deadweight losses along with various distortions caused by excess burden.

4. Write short notes on:

a. Causes of deadweight loss.

b. Equity in optimal taxation.

7.11 Selected Readings

Musgrave, R.A. (1959) The Theory of Public Finance. McGraw Hill, New York.

Unit-08: Value Added Tax(VAT) & Goods and Services Tax (GST)

Structure:

8.0 Learning Objectives

After going through this unit the learners will be able to understand.

i. the concept & meaning of Value Added Tax (VAT), different Variants of Value Added Tax (VAT), Methods of Computing Value Added Tax (VAT) and Value Added Tax (VAT) in India

ii. the concept, genesis and development of Goods & Services Tax (GST), features of GST. Milestones attained by GST, different Issues involved in GST and finally base of GST in India

8.1 Introduction

The value added tax (VAT) is different from other taxes primarily in respect to method of collection. When the European Economic Community (EEC) adopted VAT as the major sales tax in the Community, there has been great interest in VAT throughout the world. Since then, India has been making its best efforts to modify the prevailing complicated general sales tax structure. Sensing this grave need, the government of India has set-up a number of expect committees in the past to look in to this issue. Finally, on the proposal of Report of the Indirect Taxation Enquiry Committee, 1978 the value added tax (VAT) was introduced in the year 2005 in a modified form known as Modified Value Added TAX or MODVAT. In case of MODVAT, there exists a triangular relationship between the buyers, sellers and the tax authorities. Whenever, goods are purchased, buyers pay tax to the seller and the sellers it to the authorities, who deduct the amount of tax from the seller's bill and VAT thus gets paid to the suppliers of inputs on his own purchases. VAT has a number of merits namely, firstly it helps to reduce the "cascading effect" of input taxes. Secondly, it curbs the tax evasion leading to check in generation of black money in the longrun. Thirdly, it helps the manufacturer to seek concession in a simple and easy manner and finally it encourages the export manufacturers to export to in the long run by refund of final duty paid on inputs required for production of export goods. In spite of these plus points, VAT suffers from certain flaws like multiple indirect taxes imposed by both central and state governments, leading to a fragmented and cumbersome tax regime, which prompted the Government of India to introduce Goods & Services Taxes (GST) w. e. r. 01^{st} July'2017. Simplification and Uniformity in Tax Structure, Elimination of Cascading Effect, Boosting to the Economy, Curbing Tax Evasion and Harmonization of Taxes are some of the key reasons behind introduction of Goods & Services Taxes in India Overall, the introduction of GST in India was driven by the goal of creating a simplified, transparent and efficient tax system that would promote economic growth, reduce tax evasion and enhance the ease of doing business in the country.

8.2 Concept of Value Added Tax (VAT) and Variants of Value Added Tax (VAT)

CONCEPT OF VALUE ADDED TAX (TAX);

The Value Added Tax (VAT) as the very name indicates is a tax on the value added to the commodity at each stage in production and distribution chain. P.A. Samuelson and W.D. Nordhaus have rightly said, "A tax collected at every stage of value addition, i.e., either by production or distribution is known as value added tax." Production of goods and services is nothing but stages of value additions where production of goods is done by the manufacturers or industrialists. But these goods require value addition by different service providers or producers (the agents, the whole sellers and retailers) before they reach the consumers. From production to the level of sale, there are many pointswhere value is added in all goods. VAT method of tax collection is different from the non-VAT method in the sense that it is imposed and collected at different points of value addition chain i.e., multi-point tax collection. That is why there no chance of imposing tax upon tax which takes place in the non-VAT method --- single point tax collection. Thisis why VAT does not have a " cascading effect" on the prices of goods, it does not increase inflation and therefore highly suitable for an economy like India, where due to high level of poverty large number of people lack market level purchasing capacity. It is a pro-poor tax system without beinganti-rich because richpeople do not suffer either. In fact VAT is calculated as the difference between input tax and output tax. Accordingly,

VAT= Output tax – Input tax Where, output tax is the tax received by seller for the sale of his goods & services and input tax is the tax paid by the seller for raw materials required to manufacture his goods &services. To illustrate it let us take an example

Suppose Ashok Sharma owns a hotel and he spends ₹ 40,000/- to procure raw materials. Input tax is 10%. So input tax becomes 10% of ₹ 40,000/- =₹ 4,000/-. Now after selling the food prepared by using the procured raw-materials, Mr. Sharma was able to make ₹ 80,000/-.If output.

Taxis 10%. So output tax becomes ₹ 8,000/-.Therefore, the final VAT paid by Mr. Sharma comes out to be ₹ 8,000/ - ₹ 4,000/- = ₹ 4,000/-

VARIANTS OF VALUE ADDED TAX (VAT)

So far as the variants of value added tax (VAT) is concerned, safely, we can classify them in to three categories namely i) gross product variant, ii) income variant and iii) consumption variant.

Gross Product Variant

Under this method, deduction is allowed on all purchases of raw materials and components, but not for capital inputs i.e. taxes on capital goods such as plant and machinery are not deductible from the tax base in the year of purchase. Also no deduction is made for the depreciated part of the plant & machinery in the base year. The economic base of gross product variant is same as to gross national product. Tax on capital goods is not refunded.. When tax on capital goods is not refunded then it is called gross product variant. In this variant of VAT, capital goods carry a heavier tax burden as they are purchased and also when the products they produce are sold to consumers. Thus, capital goods carry a heavier tax burden because they are taxed twice and modernization& upgrading of plant and machinery is delayed due to this double tax treatment.

Income Product Variant

Income product variant is otherwise known as net national product .Under this method, deduction is allowed on purchase of raw materials, components and depreciation on capital goods. That means the input tax credit for capital goods is not refunded straightway, but is refunded in accordance with the depreciation schedule similar to the one used for income tax purpose.. Here the methods of measuring depreciation depend on the life of an asset and the rate of inflation.

Consumption type Variant

Under this variant, VAT is collected on sales and 100% deduction is allowed on VAT paid on raw materials, components and capital goods. This variant is widely used.

8.3Methodsof Computation of VAT and VAT in India

Methods of Computation of VAT

Methods of computation for VAT can be broadly classified in to three heads namely

i) Addition method,
ii) Subtraction Method and
iii) Invoice Method/ Voucher Method

Addition Method

Based upon identification of value added i.e. aggregate at factor payments. Payment made to all factors of production are rent, depreciation, hire charges, interest on capital, wages, profits etc. (Summation of all value added elements). So

$$\text{VAT liability} = \text{Tax Rate} \times \text{Value Added.}$$

Subtraction Method

Under this method, tax is paid on the difference between sale price and value of purchases. No tax credit is allowed as the tax has not been calculated on the total value of goods sold.

a. Direct Subtraction Method = Aggregate value of sales exclusive of tax –Aggregate value of purchases exclusive of tax
b. Indirect Subtraction Method = Tax inclusive value of sales – Tax inclusive value of purchase

(Tax is collected and charged on the aggregate value of tax payable on sale and purchase)

Invoice Method /Voucher Method

It is a most common and popular method of computingtax liability under VAT system. Here tax is levied on full sales price. Credit is given for tax paid on purchases. Under this method, sale receipt or invoice is used to compute the corresponding VAT. Traders when they sell their goods and services offer invoice containing separate details of VAT collected.

Value Added Tax (VAT in India)

Over 160 nations in the world have implemented the VAT system of taxation regading collecting their indirect taxes. There have been valid reasons why India should move towards VAT methods of tax collection. We may see some major reasons. Firstly, Indian indirect tax collection system was price rising (having cascading effect on the price) which was highly detrimental to the poor masses. Implementation of VAT will improve the purchasing capacity and so living standard of the poor people.Secodly to bring in uniformity at the State level taxes, VAT was a necessary step in India, Thirdly, with the process of economic reforms, India moved towards market economy and for this, India needed to have a single market. Without uniformity at the State level taxes, this was not possible.Fourthly, Indian federal design has resulted in weaker States and stronger Centre. AsVAT increases the total tax collection (based on the experience of the world) it was fit to be implemented at the State level. Fifthly, India has been a country of high level tax evasion. By implementing VAT method of indirect tax collection, it becomes almost impossible to go for large scale tax evasion. In India a total number of 20 States / Union Territories switched over to VAT (from their existing sales tax) in April 2005. Rest of the States went for it by 2008-09. Majority of States / Union Territories saw revenue buoyancy due to VAT in the very first year of its implementation while few States availed the Central compensation facility for their revenue losses, that too for hardly one or two years. Experience of implementing VAT in India has been quite encouraging—by the financial year 2016-17, the tax revenues of States and UTs were estimated to grow with an annual rate of around 16 per cent. This way, the view that the VAT will increase the tax collections of States has been validated.

8.4 Goods and Services Tax (GST) in India

Goods and Service Tax (GST)

After implementing the state VAT, Government of India wanted to go for the proposed GST (Goods and Services Tax). This is aimed at integrating the indirect taxes of Centre and the states in to a single national tax—popularly known as the **Single VAT** of India. By creating a single market at the plan-India basis it will help the business and industry in a big way. The tax has potential to increase GDP up to 2 per cent (conservative estimates by some experts).All the benefits which the state VAT brought to the market and economy are the same in case of GST too.

Genesis and Development of GST

The first proposal of GST recommended by Vijay Kelkar Task Force (2003) recommended the implementation of a comprehensive GST system in India to replace the existing complex and cascading structure. But lack of consensus between the Centre and the states kept the process delayed --- to sort out the contentious issues, one after anothertwo independent expert committees headed by Arvind Subramanian submitted their advices to Government of India. Finally, the Constitution (101^{st} Amendment) Bill, 2016 was cleared by Parliament by early August 2016 – paving the way for its implemetation.Finally, the new federal indirect tax GST was enforce by Government of India on July1, 2017 This in effect, a multi-stage, destination based tax that is applied to all value additions. GST was implemented to make country's single domestic indirect system clear, detailed and understandable is a tax that is levied on the supply of goods and services.

Features of Goods and Service Tax (GST): The major features of GST are detailed below.

1) The central taxes subsumed in it are –central excise duty (cenvat); additional excise duty; service tax; additional custom duty (commonly known as countervailing duty and special duty of custom (total 5 taxes).
2) The state taxes subsumed in it are – state vat; entertainment tax (other than the tax levied by the local bodies); central sales tax (levied by the centre and collected by the states);

octroi and entry tax; purchase tax; luxury tax; and taxes on lottery; betting and gambling (total 8 taxes)

3) Concept of “declared goods of special importance” dropped

4) On inter-state transaction of goods and services an Integrated GST will be levied

5) Exception from GST on alcoholic liquor for human consumption, petroleum and petroleum products (on latter it will be imposed on a later date)

6) The threshold limit for exemption from levy of GST would be Rs20 lakh for normal States and Rs10 lakhs for the Special Category States.

7) The threshold for availing the composition scheme would be Rs50 lakhs---with the Service providers kept out of it.

8) States to get compensation for 5 years for loss of revenue due to implementation of GST (for this base year will be 2015-16 with growth rate of 14 per cent)

9) Minor changes in rules and regulations may be permitted with the approval of the chairperson, if required (due to suggestions from the stakeholders or from the Law Department).

10) All exemption/incentives on direct taxes will rest withdrawn with obligation to pay GST. If any of them continue it will be administered by way of a reimbursement.

11) Bands of (in per cent) of goods under GST shall be 5, 12.18 and 28 and in addition there would be a category of exempt goods Further, a cess would be levied on certain goods such as luxury cars, aerated drinks, pan masala and tobacco products, over and above the rate of 28 per cent (for payment of compensation to the States)

12) Keeping in mind the federal structure of India, there will be two components of GST--- Central GST (CGST) and State GST (SGST) ---- both Centre and States levying GST across the value chain on every supply of goods and services. States will access 90 % of assesses with annual turnover below ₹ 1.5 crore while remaining 10 % by the Centre. For taxpayers with over ₹ 1.5 core turnover, the split is 50:50 between the centre and the states.

After the GST was enforced a state of confusion was seen due to several reasons--- related to tax rates, complexity of compliance process, complaints of businesses and trading bodies, etc. The tax being fully online, certain level of dissatisfaction was seen in the area of unawareness and lack of IT services also. Experts believe that in coming times these concerns will be resolved and a new era of federal indirect tax regime will commence in the country.

Development and implementation of GST in India involved a lengthy and complex process. It required constitutional amendments, consensus building among the central and states governments and extensive discussion with various stakeholders

Key Milestones

1) **Constitutional Amendments**; The Constitution (122 Amendment) Bill 2014, commonly known as the GST Bill was introduced in the Indian Parliament. It sought to amend the Constitution to empower both the central and state governments to levy GST concurrently.
2) **Formation of GST Council:** The GST Council was formed comprising of representatives from the central state governments. It was responsible for making key decisions regarding the structure, rates, exemptions and administration of GST.
3) **Passage of GST Bills:** The Central GST (CGST) Bill and the Integrated GST (IGST) Bill were passed by the Parliament, while the State GST (SGST) Bills were passed by the respective state legislatures. These bills outlined the legislative framework for GST.
4) **GST Rates and Structure**: The GST Council decided on the tax rates for different goods and services. They categorized goods and services into various tax slabs—5%,,12%,18% and28% -along with a special rate for precious metals and a cess on certain goods.

5) **IT Infrastructure**: The development of a robust IT infrastructure was crucial for the successful implementation of GST. The Goods and Services Tax Network (GSTN) was set up to handle the technology backbone of the GST regime.

6) **Roll out and Implementation**: GST was officially launched on July1, 2017. It marked the culmination of the long process of conceptualization, constitutional amendments and legislative changes.

Since its implementation, GST has undergone various modifications refinements basrd on feedback and experience. The government has made efforts to address concerns and simplify the compliance procedures associated with GST.

Issues in Goods and Services Tax (GST); As we know, Goods and Services Tax (GST) is a comprehensive indirect tax implemented in India on 1st July, 2017. While GST has brought significant reforms to the Indian taxation system, there are several issues associated with implementation. Here are some of the key issues related to GST in India.

1. **Multiple Tax Slabs**: One of the major criticisms of GST is the presence of multiple tax slabs. Currently, GST in India has four slabs- 5%, 12%, 18%, and 28%. The complex tax structure leads to confusion and compliance challenges for businesses. Critics argue for a simple tax structure with fewer slabs to enhance ease of doing of doing business.
2. **Compliance and Technology Challenges**: The implementation of GST requires businesses to comply with various procedural formalities, including filing returns and maintaining detailed records. The introduction of GST also necessitates the use of technology for compliance. However, many small businesses in India face facilities in adopting to the new technology infrastructure required for GST compliance.
3. **Input Tax Credit (ITC) issues**: GST allows businesses to claim input tax credit on their purchases, reducing the tax burden. However, there have been instances of mismatched invoices and fraudulent claims, leading to disputes between businesses and tax authorities. The ITC process needs to be simplified and streamlined to avoid such issues.
4. **Classification and Rate Disputes:** There have been disagreements and litigation over the classification of goods and services under different slabs. The classification of certain

products and services in to specific tax brackets is subjective, leading to disputes and confusion among businesses.

5. **Impact on Small Businesses:** Small and medium- enterprises (SMEs) faced challenges during the initial implementation of GST. The compliance burden, including the requirement to file multiple returns, impacted their operations and profitability. Although several measures have been taken to ease compliance for SMEs, there is still a need for further simplification and support.
6. **Revenue Shortfalls for States**: GST is a destination- based tax, and the revenue is shared between the central and state governments. Some states have reported a revenue shortfall since the implementation of GST, impacting their fiscal position. These states have requested compensation from the central government to bridge the gap.
7. **Anti-Profiteering Measures**: GST introduced anti-profiteering provisions to ensure that businesses pass on the benefit of reduced taxes to consumers. However, the implementation of these measures has faced challenges and instances of non-compliance have been reported. There is a need for stricter monitoring and enforcement to ensure that businesses comply with these provisions.
8. **Exclusion of Petroleum Products:** Petroleum products such as petrol, diesel and natural gas are currently excluded from the purview of GST. This exclusion leads to cascading taxes and prevents businessesfrom claiming input tax credit on related expenses. The inclusion of petroleum products under GST has been outstanding demand to streamline the tax structure.

The Indian government has been addressing these issues over time by introducing amendments, simplifying procedures, and engaging with stakeholders to make the GST framework more efficient and business-friendly.

8.5 The Base of Goods and Services Tax (GST)

The base of goods and Services Tax (GST) in India is a dual system comprising of CGST levied by the central government and SGST levied by the state governments. Both CGST and SGST are levied on the intra-state supply of goods and services. Additionally, there is an Integrated Goods and Services TAX (IGST) that is levied on the interstate supply of goods and services as well as imports. The IGST is collected by the central government and a portion of it is allocated to the respective states .The base of Goods &Services (GST) in India is quite broad and covers a wide range of goods and services. Underthe GST regime, most goods and services are subject to taxation with few exceptions and specific categories attracting different tax rates. The GST is levied on the supply of goods and services at each stage of the supply chain, from the manufacturer to the consumer. It is a comprehensive indirect tax that has replaced multiple indirect taxes such as the Central Excise Duty, Service Tax, Value Added Tax(VAT)previously levied by the central and state governments.

The GST base in India includes the following:

1. Goods

The supply of various goods including both tangible and intangible goods attracts GST. It encompasses items such as electronics, automobiles, clothing, furniture, and appliances and more.

2. Services

The provision of services such as professional services, transportation, hospitality, telecommunications, entertainment, health care and financial services are subject to GST in India.

3. **Interstate transaction**

GST is applicable to the supply of goods and services between states within India. Integrated GST (IGST) is levied on such transactions which is combination of both central and state government GST.

However, there are certain items that are exempted or attract lower rates under GST. These include essential goods like food grains, health care services, educational services and some basic necessities. Additionally, specific sectors such as petroleum products, alcohol and real estate are subject to separate taxation or fall outside the purview of GST. It is important to note that the specific tax rates and exemption may vary over time as per the decisions of the GST Council, which consists of representatives from central and state governments and determine the GST framework in India.

8.6 Summary

Value Added Tax (VAT) is a type of indirect tax levied on goods & services for value added at every point of production or distribution cycle starting from raw materials to final retail purchase. It is introduced to eliminate the cascading effect of tax (tax on tax) which leads to increase the cost of production. We have discussed here the variants and different methods of computing VaT in India. The "One Country, One Tax" Act was passed by Parliament on March 29, 2017 and went into effect on July 1st, 2017. GST is a multi-stage, destination-based, indirect consumption tax that is applied to all value addition. An effort has been made in this unit to highlight the meaning, issues and base of GST in India. GST thus, is the mother of all tax reforms in India.

8.7 Key Words

VAT	Value Added Tax is a tax on value added to the commodity at each stage in production and distribution chain. It is a consumption tax as it is finally borne by the consumer.
MODVAT	Modified Value Added Tax
GST	GST is a destination based indirect tax, multi-stage consumption tax that has replaced almost all the indirect taxes such as central excise duty, services tax, value added tax and all others multiple indirect taxes previously collected by central and state governments
SGST	SGST is levied by state government on inter-state businesses

CGST	CGST is levied by central government on intra-states businesses.
IGST	IGST is levied by central government on inter- businesses and imports states.

8.8 Model Questions

1. What do you mean by VAT? Discuss its variants.
2. What is VAT? Discuss the various methods of computing VAT.
3. Discuss briefly the development and implementation of VAT in India
4. What is GST? Discuss the justification of introducing GST in India.
5 Discuss the issues involved in the implementation of GST in India
6. Write the difference between SGST, CGST and IGST.

8.9 References

1. R.K.Lekhi, Public Finance, Kalyani Publishers, New Delhi
2. S.K.Singh, Public Finance in Theory and Practice, S Chand, New Delhi
3. Ramesh Singh, Indian Economy, Mc Grow Hill Education (India) Pvt.Ltd. Chennai
4. P.A. Samuelson and W.D. Nordhaus, Economics, (New Delhi: Tata Mc Graw Hill, 2005)

8.10 Additional Readings

1. Vijay Kelkar Task Force on FRBM ACT 2003, Ministry of Finance, Economic Survey, 2004-05 (New Delhi), Government of India.
2. Raja. Chelliah, Pawan K. Agrawal, Mahesh C. Purohit and R. Kavita Rao, Introduction to VAT in Amresh Bagchi (ed), Readings in Public Finance (New Delhi; Oxford University
3. Two Expert Committees-----First it was from the National Institute of Public Finance and Policy (NIPFP) followed by the Subramanian Committee, during 2016-17.

BLOCK 3: Public Expenditure

UNIT 9: Theories of Public Expenditure

UNIT 10: Social Cost-Benefit analysis –Project Evaluation, Evaluation of Costs and Discount Rate.

UNIT 11: Reforms in Expenditure Budgeting; Performance budgeting and Zero-Based Budgeting.

UNIT 12: Trends and lessons in Public Expenditure

Unit-09: Theories of Public Expenditures

Structure:

9.0 Learning Objectives

After going through this unit the learners will be able to understand

- The classifications of public expenditures
- Why there is a rise in public expenditure in states including India over a period of time?
- Various theories of public expenditure
- Analyze the rationale behind the public expenditures incurred

9.1 Introduction

Public expenditure refers to the expenditure incurred by the central, state and local govt to satisfy collective social wants. As there is a continuous expansion Of State activities and other public bodies. The volume of public expenditure has been increasing in almost all countries of the world.

The importance of public expenditure has increased due to the development of the functions of the state in social matters and public utilities.

9.2 Classifications of Public Expenditure

Dalton has classified the public expenditure as follows:

- Maintenance of armed forces and the police.
- Administration of justice.
- Maintenance of the nominal head of the state and diplomatic representatives abroad.
- Maintenance of the machinery of the civil govt. & public debt charges including interest, repayment of principal, and cost of management.
- Development of industry, supply of currency, and Conduct of postal and transport services.
- Health, education, Child allowances, pensions, and other forms of Social Security, price Subsidies. Expenditure on some of these items aims at preserving the social life of the community and others at improving the quality of social life.
- Mr. S. Hicks has classified the public expenditure into
- Defense expenditure
- Civil expenditure
- Economic expenditure.

Adam Smith's Classification of public expenditure is known as 'Functional classification'. He stresses that the government has to perform four functions namely maintenance of law and order, justice, maintenance of public utilities, and its Sovereignty.

Charles B. Bastable supported this classification. The merit of this classification is that the public expenditure in different Counties can be compared and evaluated.

Departmental classification: This is done in terms of expenditure incurred by the various departments like agriculture, industry, defense, and revenue. Labour etc.

Optional and obligatory Expenditure: Expenditure
On Defence, justice, and maintenance of economic institutions are obligatory but that of Social Security is optional.

Transfer and non-transfer Expenditure: Pigou has classified this by taking into account whether it involves the use of goods and services or not. Payments for the purchase of raw materials fall under the real expenditure and pension and subsidies under transfer expenditure.

Divisible and indivisible expenditure: Expenditure that confers particular benefits on individuals like medical and health services is called divisible expenditure, on the On the other hand, expenditure that confers common benefits is called indivisible expenditure like Defense expenditure.

Economic Classification: If public expedite brings benefits to the present, it is called current public expenditure; if it brings future benefits, it is known as Capital expenditure.

Productive and unproductive Expenditure:
Expenditure which is like investment in the quality and quantity of production is called productive expenditure like investment in public sector enterprises and building of infrastructure.

Expenditure which like consumption like expenditure on Defence, administration, and maintenance of Law & Order is unproductive expenditure.

9.3 Wagner's law

Wagnere's Law of increasing state Activities "Wagner believed that a functional cause-effect relationship prevailed between economic growth and growth in public expenditure. His hypothesis strasses that as the per capita income and output increase in advanced Countries, the public expenditure of these Countries necessarily grows as a proportion to the economic activity. Wagoner's Law is almost universally true. There is an extensive and intensive increase in the functions of the state. While new functions are added, traditional functions are expanding and are being performed on a large scale.

Causes of increasing state activities:

- **Extension of traditional functions:** Wagner argued that there was a persistent tendency both towards "extensive" and "intensive increase "in the functions of the state. According to Wagner new functions are continuously being undertaken while old functions were being performed more efficiently by the state and on a large scale Cangere scale. Empirical evidence supports this trend of upward rise in government activities.

- **Coverage of new functions:** With the changing role of govt as a maximizer of social welfare, it has expenditures related to social security in the form of old age pensions to enrich the cultural life of the society. State activities were increasing on account of subsidies and its efforts as redistributing income and wealth.

- **Social progress:** It leads to growth in govt function which in turn leads to the absolute and relative growth of govt economic activity.

- **Expansion in the sphere of public goods:** The State is trying to shift the composition of national products in favor of public goods which necessitated the expansion of the investment activities of the government.
- **War and preparation for war:** Expenditure on national Defense generally accounts for half and at times more than half of the total budget expenditure.

- **Growth of Population:** In harmony with the increase in population the public services have to increase in the form of more schools, more hospitals, and more houses.

- **Urbanization:** Migration takes place with an increase in population. Urbanization needs larger per capita expenditure on civic amenities. A good infrastructure incidental services like connected traffic and roads are to be provided.

- **Rise in prices and national income:** There is a secular tendency for prices to rise for which the governmentt has to pay higher prices for goods and services which it has to buy.

Secondly, it has to find larger financial resources to meet its ever-growing expenditure. To a certain extent, the increased government expenditure is itself one of the contributory factors responsible for the rise in prices.

- **Economic planning and growth:** This implies an increase in the public sector and various efforts on the part of the government towards capital accumulation and economic growth.

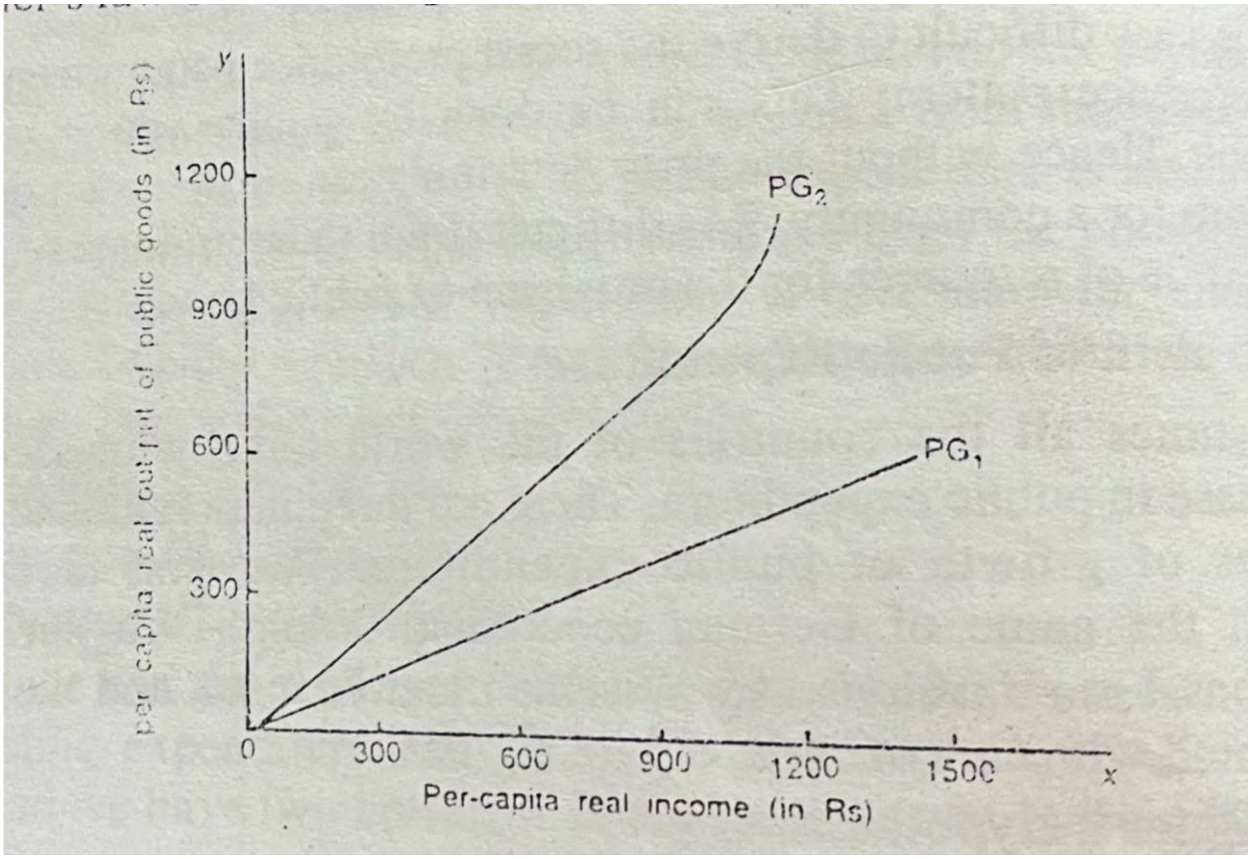
- **Specialization**: The nature and size of public services need specialization. The quality of services improves, both as a historical fact and due to circumstantial compulsion. The govt has to purchase several goods and services for its maintenance. So expenditure goes up with a rise in prices.

- **Economic protection:** The modern government considers it as a part of its duty to protect the economy from the evils of market mechanisms. So analytical and other measures are adopted. Efforts are taken to reduce income and wealth inequalities to bring about economic and social justice. Hence, expenditure on welfare and social services is bound to raise public expenditure.

- **Complexity of modern life:** Modern life has become increasingly complex and police protection of the modern state has increased quantitatively and qualitatively involving a continuous substantial increase in public expenditure.

- **Mounting public debt:** Modern governments. have shown a tendency to run into debt and so there has been a substantial increase in public expenditure on servicing and repayment of debt.

Diagrammatic presentation of Wagner Hypothesis:



Horizontal axis measures the per capita real income whereas the vertical axis depicts the per capita output of public goods.Time is considered an important third dimension. PG1 line represents a situation in which the public sector maintains a constant proportion of output over time. It means while the per capita real income increases due to economic development, the per capita real output of public goods remains at a constant Fixed proportion as of the total economic activity.

The PG1 line may be used as a reference point to the law as shown by the PG2 curve. At this curve the proportion of the total resources devoted to the production of public goods is expanding over time.

Criticism:

Allan peacock and Jack wiseman have criticized the wagner's hypothesis on the Following grounds:

- Wagner's Hypothesis deals with inter-disciplinary phenomena though it's not essentially in its analytical framework. So, it lacks a comprehensive analytical framework.
- Wagner law is based on an organic self-determining theory of the government which is not the prevailing accepted theory of state in most western countries.
- Wagner Hypothesis ignores the influence of war on the government. spending activity.
- Wagner emphasizes a long term trend of public expenditure which tends to overlook the significant time process of public expenditure growth.

9.4 Peacock-Wiseman Hypothesis

Introduction: Wiseman and Peacock studied the public expenditure in the United Kingdom in the period 1890-1955. The main thesis emphasized on the increase in public expenditure is not as smooth and continuous but rather in a jerks and step-like manner.

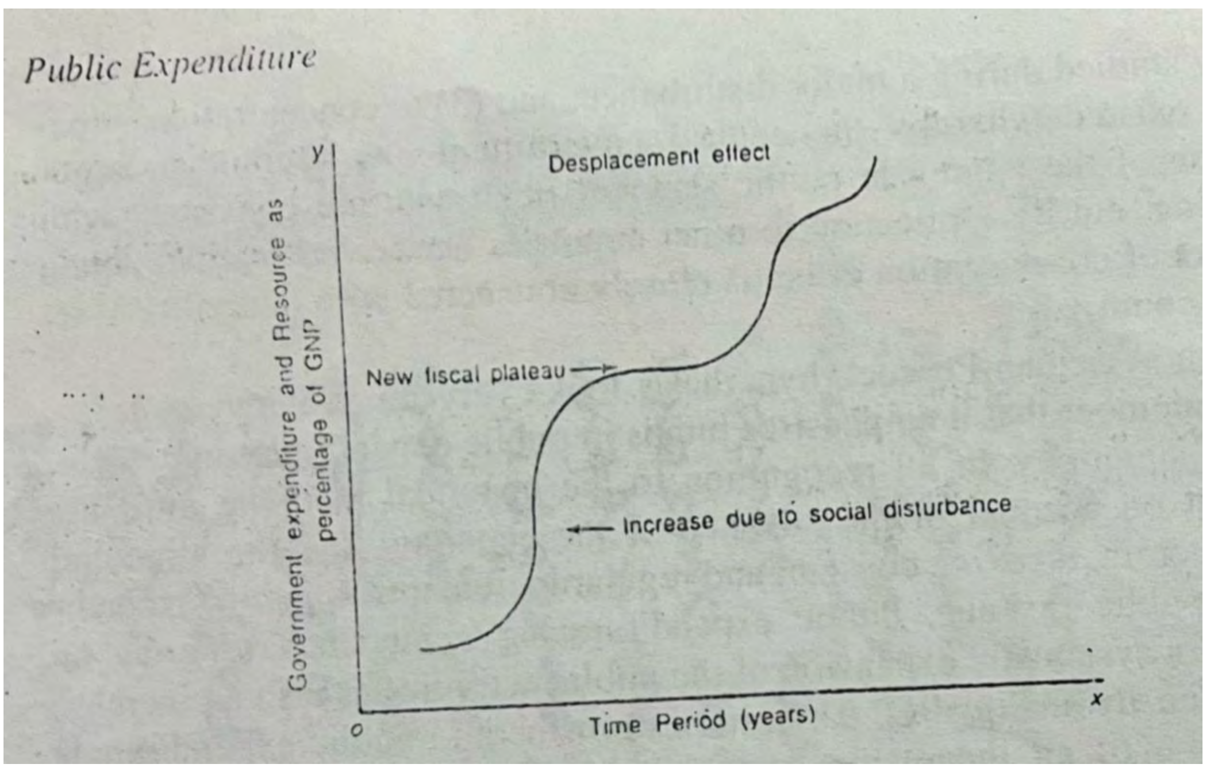
Three Effects:

The general approach to the hypothesis of an increase in public expenditure refers to the 3 related concepts.

1. Displacement Effect.
2. Inspection Effect.
3. Concentration Effect.

Explanation of three Effects: Using empirical data for the British Economy after 1890, Wiseman and Peacock observed that the relative growth of the public sector in the UK has followed a 'discrete' step Like pattern rather than a 'continuous' growth pattern. At times some social or other disturbances take place which at once shows the need for increased public expenditure which the existing public revenue can not meet. The movement from the older level of expenditure and taxation to a new level and higher level is called the Displacement Effect. But once the social distance has ended, the newly emerged levels of 'tax tolerance' make society willing to support a higher level of public expenditure. Now society is used to heavier taxes and realizes that it is capable of carrying a heavier tax burden than it previously had. Thus, when the major social disturbance ends no strong motivation exists for the society to return to the pre-disturbance level. The higher govt revenues are used to support a permanently higher level of public sector allocation. This is known as the 'Displacement Effect'.

Diagrammatic Presentation:



The diagram reveals that as the social disturbances cause a relative expansion of the public sector, the Displacement effect occurs and it helps to explain the time pattern by which the govt growth took place.This displacement effect doesn't require that the new higher plateau of expenditure will continue with the same expenditure pattern that was created by social disturbance.

Inspection Effect: Although some of the increased govt outlays such as debt interest are direct results of a social disturbance,other expenditure items frequently involve the expansion of the govt activity in to new areas of economic activity.War and other social disturbances force the people and their govt to find solutions of important problems which has been neglected-known as inspection effect.

Concentration effect: It refers to the apparent tendency for the central government economic activities to become an increasing proportion of the total public sector economic activity when the society is experiencing economic growth.

Conclusion:

In nutshell, Wiseman and Peacock concluded that in the UK ,the relative growth of public sector has occurred in a step like pattern, known as displacement effect.An inspection process has occurred whereby existing problems are more clearly defined with the potential solutions more carefully studied during a major disturbance .A concentration process has existed whereby the central government has become a larger proportion of the aggregate public sector.

Limitations:

Though British data are consistent with this finding, its application to other countries needs verification. Again the aspect of concentration effect is closely connected with the political set up of the country.

1. Through Wiseman-Peacock Hypothesis is quite convincing which emphasizes jumps in public expenditure only due to abnormal situation due to advancement in the economy and the structural changes therein, there are constant and regular increments in public expenditure and public revenue. An upward movement in public expenditure is the outcome of an increasing population, urbanization, increasing awareness of civic rights and duties. In less developed countries like India, state is deliberately trying to increase its activities to finance those through various tax efforts. In developed countries, the state has an increasing regulatory duty towards the economy to protect it against instability and from excessive inequalities of wealth. So Wiseman Peacock hypothesis doesn't isolate the relevant cause at work.

2. Besides common factors like growth, population and defense expenditure, there are inherent deficiencies of market mechanism which make the economy a prey of economic instability, income and wealth inequalities, defective pattern of consumption, employment and investment. In many cases, the market mechanism fails to pull the economy from the vicious circle of poverty and take it to rapid economic growth.

Concluding remarks:

Nevertheless, the Wiseman Peacock approach to govt spending is much more modest at what it aims to explain than the Wagner's Hypothesis. It contributes significantly to the understanding of the process of the growth of public sector in industrial economies.

9.5 Pure theory of Public expenditure

Though British data are consistent with this finding, its application to other countries needs verification. Again the aspect of the concentration effect is closely connected with the political setup of the country.

1. Through Wiseman-Peacock Hypothesis is quite convincing and emphasizes jumps in public expenditure only due to the abnormal situation due to advancement in the economy and the structural changes therein, there are constant and regular increments in public expenditure and public revenue. An upward movement in public expenditure is the outcome of an increasing population, urbanization, and increasing awareness of civic rights and duties. In less developed countries like India, the state is deliberately trying to increase its activities to finance those through various tax efforts. In developed countries, the state has an increasing regulatory duty towards the economy to protect it against instability and excessive inequalities of wealth. So Wiseman Peacock's hypothesis doesn't isolate the relevant cause at work.

1. Besides common factors like growth, population, and defense expenditure, there are inherent deficiencies in market mechanisms that make the economy prey to economic instability, income and wealth inequalities, and defective pattern of consumption, employment, and investment. In many cases, the market mechanism fails to pull the economy from the vicious circle of poverty and take it to rapid economic growth.

Concluding remarks:

Nevertheless, the Wiseman-Peacock approach to govt spending is much more modest in what it aims to explain than Wagner's Hypothesis. It contributes significantly to the understanding of the process of the growth of the public sector in industrial economies.

Limitations: Pigou considers public expenditure independent of taxation policy which is untenable.At the same time it is not possible to measure the social benefits of different items of expenditure.And sometimes public expenditure is aimed at some backward classes thereby doesn't promote general welfare.

There is another principle propounded by Eric Lindahl in the name of Benefit Principle which explains that in case of private goods price mechanism brings Pareto Optimality but this is of no use in case of public goods having joint demand and indivisibility. So he regards the determination of public expenditure in connection with the distribution of the corresponding tax burden among the groups among the community.

But the theory is inherently **defective** by assuming only two taxpayers having equal bargaining power and ability on the basis of which it can lead to a Pareto optimal solution.

Pure theory of public expenditure by Samuelson:

Samuelson's pure theory of public expenditure is a theoretical framework which analyzes the economic effects of government expenditure. It puts insights into how public expenditure can affect resource allocation, efficiency, and welfare in both partial equilibrium and general equilibrium settings.

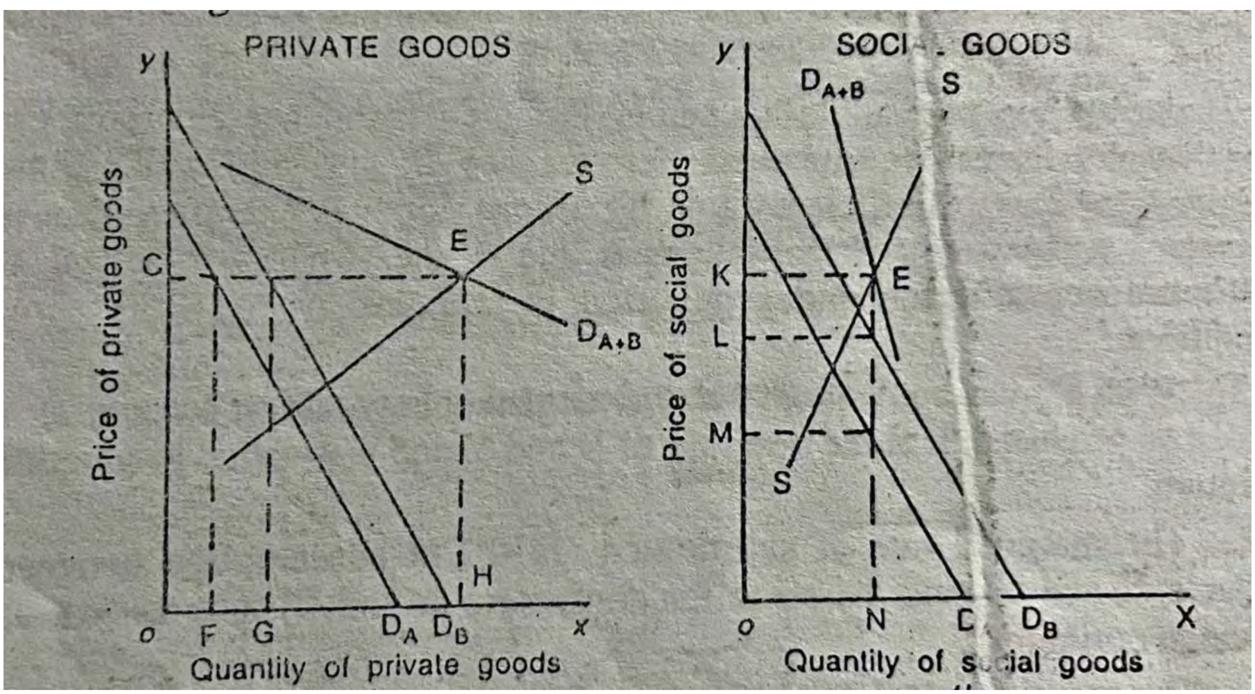
Partial equilibrium setting:

In a partial equilibrium setting, Samuelson's theory on the specific market affected by government expenditure. The main assumption is that the government's expenditure is financed through taxation, which alters the distribution of income and changes the prices of goods and services. Samuelson argues that public expenditure can influence the allocation of resources and market outcomes through two main channels:

> **a) Income effect:** When the government taxes individuals or firms to finance its spending, it redistributes income from the private sector to the public sector. This redistribution affects individuals' purchasing power and alters their demand for goods and services. For example, if the government increases taxes on high-income individuals and spends the revenue on public education, it can lead to a shift in demand towards private goods and services preferred by lower-income individuals.

b) Price effect: Government spending can also affect relative prices in the economy. When the government purchases goods and services, it increases demand for those specific goods, leading to a rise in their prices. This price increase can induce a reallocation of resources, as producers may find it more profitable to produce goods demanded by the government rather than goods demanded by the private sector.

According to Samuelson public goods can't be provided by individual.They are provided collectively as individual preferences can't be be known in case of public goods and there is a market failure in case of provision for public goods.In a democratic society the ultimate provision of public goods is the desire of the people in the society for such goods and services and thus govt influences individual preferences for public goods.on this assumption the market principle can be applied to the determination of the optional provision and financing public goods.



There are two individuals A and B.The figure shows the demand for for a private goods and a social goods for the two individuals.The first figure shows DA and DB as demand for private goods X for A and B .The market demand for X is DA+B which is obtained by the horizontal summation 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 by the market demand DA+B with market supply S at point E . Quantity purchased by A and B is OH .A will purchase OF while B buys OG.

The second diagram shows that DA and DB are demand schedules for A and B.DA+B is obtained by vertical addition.it is market demand for the social goods G which is consumed in the same quantity by all tax payer consumers the market demand for social goods requires vertical addition of individual demand curves.Equilibrium is achieved at point E and consumption of G by A and B is ON and the combined price is OK of which OM is paid by A and OL by B.Thus the production of social goods and its pricing are determined by the same principle which applies to private goods.But the only difference mentioned by Samuelson is that efficiency requirement in private goods is one in which the marginal benefit from such goods for each individual equals its marginal cost.In case of a social goods this rule requires that marginal benefit for each individual differs and the sum of such marginal benefit equals marginal cost.Each individual purchases the same amount of social goods but pays different prices for it depending upon the valuation of the goods.In the case of private goods each consumer pays the same price but purchases different amounts of commodity.In the above diagram the marginal benefit derived by A and B in consuming OF and OG respectively is equal to to the marginal cost HE. Each individual consumes ON quantity of social goods but A pays OM price for it while B pays a price equal to OL.

Thus the pricing rule is the same for public goods and private goods. This rule says that the price payable for each consumer equals the individual's marginal benefit. Here we view the market in a separate partial-equilibrium setting.

By considering these income and price effects, Samuelson's theory suggests that public expenditure can have both direct and indirect impacts on resource allocation and market outcomes in the partial equilibrium setting. However, it does not provide a comprehensive analysis of the overall economy-wide effects, which brings us to the general equilibrium setting.

General equilibrium setting:

In the general equilibrium setting, Samuelson's theory extends its analysis beyond the specific market affected by government spending and considers the interdependencies and feedback effects that exist among different markets in the economy.

In this setting, Samuelson examines how government expenditure influences the overall equilibrium of the economy. He stresses that public expenditure can have wider impacts on resource allocation, efficiency, and welfare by affecting production, consumption, and investment decisions throughout the economy.

When the government spends money, it injects demand into the economy, which can stimulate production and employment. However, this injection of demand is not without consequences. To finance its expenditure, the government needs to raise taxes or resort to borrowing, which can have negative effects on private consumption and investment. Higher taxes reduce individuals' disposable income, and results in decrease in private consumption. Similarly, increased borrowing by the government can have a crowding out effect on private investment by raising interest rates.

Samuelson's theory emphasizes that the overall effects of public expenditure depend on how the government's expenditure is financed and how individuals and firms react to the resultant changes in taxes and interest rates. It highlights the importance of analyzing the dynamic interactions between different sectors and markets in the economy to fully understand the consequences of government expenditure.

9.6 Summary

Samuelson's pure theory of public expenditure provides insights into the economic effects of government spending. In the partial equilibrium setting, it focuses on the specific market affected by public spending, considering income and price effects. In the general equilibrium setting, the theory expands its analysis to the broader economy, examining the interdependencies and feedback effects among different markets. Both settings contribute to our understanding of how government spending can influence resource allocation, efficiency, and welfare in an economy.

9.7 Key Words

Public Expenditure
Planned Expenditure
Non-Planned Expenditure
Displacement effect
Concentration effect
Inspection Effect
Productive Expenditure
Unproductive Expenditure
Development Expenditure
Non-Development Expenditure
General & Partial Equilibrium
Income Effect
Price Effect

9.8 Model questions

1. Classify the concept Public Expenditure given by Dalton, Adam Smith and Hicks.
2. Critically examine the Wagnar's Law of increasing state activities.
3. Explain Peacock Wiseman hypothesis of public expenditure. How is it different from Wagnor's Law?
4. Write Short notes on
    1. Displacement Effect
    2. Concentration Effect
    3. Inspection Effect
    4. Planned and non-planned expenditure
    5. Defense and civil expenditure
    6. Transfer and non-transfer expenditure
5. Explain the pure theory of public expenditure given by Samuelsson in partial equilibrium setting,

9.9 References

1. Public Finance in Theory and Practice by Musgrave & Musgrave
2. Public Finance by GR Aronson
3. Economics of Public Finance by Dr Baidanath Mishra
4. Public Finance & Fiscal policy by R K Chowdhary
5. Public Finance by R K Lekhi

Unit-10: Social Cost-Benefits analysis-Project Evaluation, Evaluation of Costs & Discount rate

Structure:

10.0 Learning Objectives

After going through this unit the learners will be able to understand:

- This is an economic decision making process
- It used particularly in government and business
- It is used in the assessment of whether a proposed project program or policy is worth doing or to choose between several alternative one.
- It involves comparing the total expected cost of each option against the total expected benefits to see whether benefits out way cost, and by how much.
- Benefits and costs are expressed in money terms.

- Both are adjusted for the time value of money so that all flows of benefits and flows of project cost overtime are expressed on a common basis in terms of their present value.

10.1 Introduction

Project evaluation:

It is a micro-planning technique used to assess the Social desirability of a project in valuing public economics. Evaluation of the cost and benefit of each proposal is considered to know operational efficiency technically, financially economically, and managerially. We can know the effect of a project on the people of a locality on economic and social conditions.

It involves systematic, objective, and comprehensive appraisal of development programs for projects and commodities. It evaluates the rate of return on a project its social profitability & its side effects on the growth of population, employment, and investment.

After evaluation, the selection of projects is based on involving lesser cost and yielding greater benefits. It quantifies the social advantages and disadvantages of investment in money.

For example-Construction, a motorway involves monetary costs in terms of construction and costs in real terms of noise, pollution, accident, and disfigurement.

Benefits:

Saving time while traveling, Reduction of Congestion, saving on fuel, and a smooth driving. Real benefits are derived by final consumers. Real costs refer to resource withdrawal from other uses.

Pecuniary costs and benefits are due to changes in relative prices due to public services. So it results in gains to some and losses to others.

10.2 Meaning

Cost-benefit analysis of project evaluation

Social Cost-Benefit Analysis (SCBA) is a technique used to evaluate the economic feasibility and desirability of a project or policy by considering its social costs and benefits. It takes into account both monetary and non-monetary impacts and attempts to assess the overall welfare effects on society.

The evaluation of costs in SCBA involves identifying and quantifying all relevant costs associated with a project. This includes direct costs, such as construction and operation expenses, as well as indirect costs like environmental and social impacts. Costs can be both tangible (e.g., financial expenditures) and intangible (e.g., loss of ecosystem services or health effects).

On the other hand, the evaluation of benefits in SCBA involves identifying and quantifying all relevant positive impacts resulting from a project. Similar to costs, benefits can be tangible (e.g., increased employment opportunities or improved infrastructure) and intangible (e.g., improved quality of life or reduced congestion). It is important to assign a monetary value to both tangible and intangible benefits to make them comparable with costs.

Once costs and benefits are identified and quantified, a discount rate is applied to convert future costs and benefits into present values. The discount rate represents the opportunity cost of investing in a project or policy, taking into account the time value of money. It reflects the preference for receiving benefits earlier rather than later and the potential alternative uses of resources. Discounting is necessary to account for the fact that costs and benefits occurring in the future are generally considered less valuable than those occurring in the present.

The choice of discount rate is crucial because it can significantly affect the outcome of the analysis. A higher discount rate places more weight on present costs and benefits, while a lower discount rate gives greater importance to future costs and benefits. The appropriate discount rate depends on various factors, such as the time horizon of the analysis, the riskiness of the project, and societal preferences. Different countries and organizations may have their guidelines or recommendations for selecting a discount rate.

10.3 Importance of cost-benefit analysis

Project evaluation is the axle on which economic development revolves. A sound development plan requires a great deal of knowledge about existing and potential projects. The connection between investment and the rate of growth cannot be properly estimated without proper knowledge about actual and potential investment projects. Harberger stresses that the essence of investment planning in underdeveloped countries consists of ranking projects by their benefit-cost ratio and undertaking those in descending order until the savings available for investment are exhausted. After the allocation of the investment between different sectors, the planner will have to select projects within the sectors to which the investment is directed. If the division of investment between different sectors of the economy is to be rational, the costs and benefits of different projects in each sector must be on a comparable basis. There are always a large number of projects computing for development while the resources for investment are limited So, the planning authority has to choose between these projects and this choice is based on project evaluation. The selection and exclusion o projects cannot be made arbitrarily. The investment allocation must b made in such a way that net benefits are maximized. Thus, investment planning must be done to allocate resources most efficiently In a free market economy, the choice of project is made based on n profitability of the projects. But in a planned economy, social gains and costs are considered while selecting and rejecting a project for a plan. order to get the maximum social benefit, investment has to be directed to the sectors and to those projects where it will be most beneficial for the economy. In short realistic plans cannot be formulated in the absence of a great deal of project planning. Each project must be subjected to an evaluation test before it is included in a plan. It consists of estimating the ratio of benefits of projects to their costs. After calculating the benefit-cost ratio, all the technically feasible projects are arranged in descending order. Only the top few projects whose benefit-cost ratios are the highest and whose aggregate costs add up to the total size of the plan are included and the rest are excluded. When projects are included in a plan after such a process of project evaluation, the plan would turn out to be an optimal one. Hence project evaluation is a technique of optimization.

It provides superior criteria economy. It helps the planning authority in making correct Decisions to achieve optimum resource allocation by maximizing the difference between the present value of benefits and costs of a project. Hence, cost-benefit analysis "purports to describe and quantify the social advantages and disadvantages of a policy in terms of common monetary units.

10.4 General Condition for Cost Benefit Analysis

The project selection must be made on cost-benefit analysis to formulate optimal development plans. The first step of project evaluation is to consider a list of costs and benefits of a project. It depends upon the nature of the project. The social benefits of a project include the contribution that the project would make to the attainment of national goals.

10.5 Criteria for Cost Benefit Analysis

There are four benefit-cost criteria discussed by the US Sub Committee on benefits and costs. They are:

(i) B-C

(ii) B-C/I

(iii) AB/ AC

(iv) B/C

Where: B- Benefits, C-Costs - Direct investment A Increment The formula BCA is "for determining the total annual returns on a particular investment to the economy as a whole irrespective of to whom these accrue." If the private investment happens to be very large, then even a high value of B-C./I may be less beneficial to the economy. Thus, this criterion is not much useful to achieve satisfactory results. The other criteria of AB/AC = 1 are meant to determine the size of the project. The adoption of the B-C criterion favors a large project and makes small and medium size projects less beneficial. Thus, this criterion helps in determining the scale of the project based on the maximization of the difference between B and C. The best and most effective criterion for project evaluation is B/C. In this criterion, the evaluation of the project is done based on the benefit-cost ratio. If B/C=1, then the project is marginal because the benefits occurring from the project just cover the costs. If B/C, then benefits are less than costs so the project is rejected. If B/C = 1, the benefits are more than the costs and the project is profitable hence, it is selected. The higher the benefit-cost ratio, the more profitable will be the project.

The criterion discussed above does not account for the time factor. The future benefits and costs cannot be treated at par with the present benefit and costs. Therefore, project evaluation requires discounting of future benefits and costs because society prefers the present to the future. For this purpose, economists have derived several decision rules or criteria.

10.6 Evaluation based on cost

The calculation of the cost of a project is very difficult because various types of costs are considered in its construction. Costs mean the value of resources used in the construction of a project.

1. Real and Nominal Costs. Costs may be real or nominal as they involve real sacrifice on the part of people or not. If money is borrowed from the people, it is a case of nominal cost. But if people are required to construct the project themselves, they will be incurring real sacrifice and then it will be the case of real cost.

2. Primary and Secondary Costs. Primary or direct costs are those Which are directly incurred on the construction of a project but the secondary costs include the cost of providing benefits to the people working on the project such as the cost of constructing houses, schools, hospitals, etc. at the sight of the project.
3. Associated Costs. They are the value of goods and services needed beyond these included in the cost of a project to make immediate products or services of the project available for use or sale. For example, the farmer's cost of producing irrigated crops other than any charge for water would be his associated costs of producing crops.
4. Project Costs These are the value of resources used in constructing maintaining and operating the project. This includes the cost of labor, capital, equipment, intermediate goods, natural resources, foreign exchange, etc. Thus, in evaluating a project, we are to compute and compare its total benefits and total direct costs. If the benefits are expected to be more than the costs, then only the project is profitable otherwise not.

10.7 Steps of project Evaluation

The various steps of projects evaluation are as under :

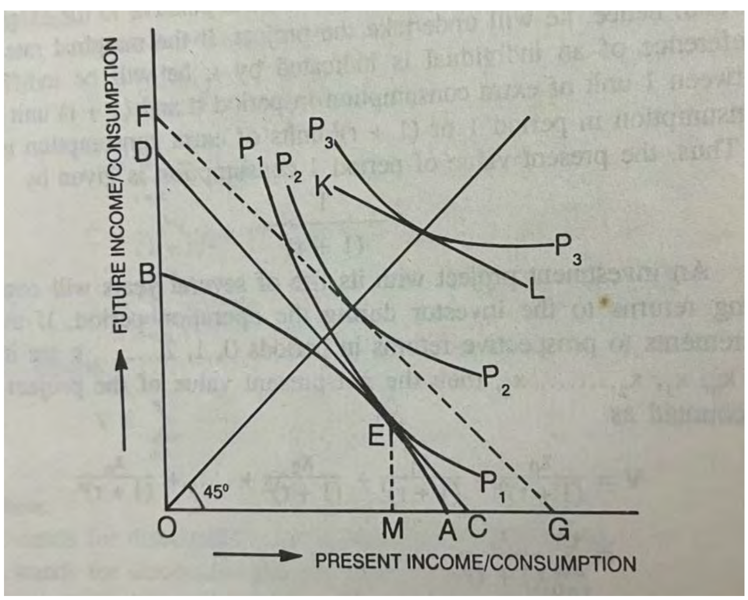
1. Data is collected and calculated on physical quantities of goods and services produced.
2. On physical quantities of goods and services consumed.

3. The monetary value of these goods and services is computed based on price index in different markets giving weight to inflationary and deflationary situations.
4. Annual costs are calculated by dividing the total costs by the expected life of capital assets. Similarly, annual benefits are computed by the monetary value of direct benefits flowing from the projects and deducted from it associated costs of the project.
Consistency analysis should be guided by the fact that an investment project conforms with the objectives of an overall budget of the government to secure the optimum allocation of resources in the economy. a proper income distribution pattern and full employment with the price level

Discounting:

While employing capital investment for the production of output whether in the private sector or the public sector, the decision is made on the expected return on investment. If such a return is anticipated to be less than in other lines of production, the particular project will not be able to attract capital from the investors. In the case of the public investment project, if the investment is made directly out of the proceeds from the government exchequer, the planners assume the responsibility of making available adequate returns to the nation. In the case of the private sector, investment involves a commitment to the stockholders in the form of dividends. Thus, the time element is a prominent factor for investment funds, since it involves the sacrifice of present consumption and waiting for future consumption. An individual will sacrifice his present consumption against a promise of enhanced future consumption following what is called his time preference. If he is indifferent between one rupee worth of present consumption and one rupee ten paise worth of consumption one year hence, the rate of his marginal time preference is 0.10 or 10 percent.

Diagrammatic Presentation



This can be explained in the following figure where the transformation curve AB shows possibility of capital productivity or investment opportunities. The slope of the curve at different points or what is technically called Marginal Rate of Transformation (MRT) indicates the rate at which present income can be transformed into future income. Thus, at point E the rate is given by the slope of the line DC indicating that the present income of the amount AM can be transformed into future income of the amount EM. The greater the sacrifice of present income, the larger will be the amount of transformed future income. But the rate of returns from sacrificing present income is diminishing and hence is the transformation curve concave to the point of origin.

On the other hand, marginal rate of time preference of the individual is given by the slope of his indifference curve for present consumption and future consumption. It indicates the rate at which he is ready to sacrifice present consumption against an assured amount of future consumption. If at a point of indifference surface the slope indicates larger present consumption than future consumption, the marginal rate of time preference will be negative as shown by P, schedule with KL. Slope. In the reverse case as indicated by the slope line DC at point E of indifference schedule P, the rate will be positive while GF slope of P, speaks of neutral preference or zero rate. The marginal rate of time preference and the marginal rate of transformation are equal at point E where the preference and transformation schedules are tangent to each other. At this point, the rate of interest in private economy is determined.

Now, since the project is to be undertaken now, it is necessary for the investor to know the present value of the project in order to decide whether to proceed with the venture or not. To take an example, suppose, an investor has the opportunity of enjoying an extra consumption of the commodity worth Rs. 110 next year by sacrificing present consumption worth Rs. 90 this year. Now, with the knowledge of his marginal rate of time preference. we can find out the present consumption value this year, which he will consider equal in worth the future consumption of the value of Rs. 110 next year. If his marginal rate of time preference is 10 percent per year he will be neutral as between Rs. 100 this year and Rs. 110 next year. That means the present value of the project this year to him is Rs. 100. Since the project

Costs Rs. 90 this year, the net present value is positive to the extent of Rs 10 and, hence, he will undertake the project. If the marginal rate of time preference of an individual is indicated by r, he will be indifferent as between I unit of extra consumption in period 0 and (1+r) unit of extra consumption in period I or (1+r) units of extra consumption in period 2. Thus, the present value of period 1 consumption is given by
(1+r)
An investment project with its life of several years will continue to bring returns to the investor during the operation period. If the small increments to prospective return in periods 0, 1, 2...n are indicated by X0, X1, X2......
Xn, then the net present value of the project can be discounted as
V=X0/(1+r)0+X1/(1+r)1+X2/(1+r)2......+Xn/(1+r)n= Σ n xi/(1+r)i i=0

Thus, the discount factor is the inverse of the compound interest formula for that year and the flow of return (or of cost) for the year is multiplied by the discount factor to get the present value. For a private enterprise or public corporation carrying out a financial analysis, the discount rate is generally the rate of interest at which bank loans are available. In case the enterprise uses its own funds, it is the rate which the bank would have paid for the deposit of such funds, i.e. their opportunity cost. In the case of public investment, the discount rate is set by the central planning authority (since bank interest rates do not reveal the true scarcity of funds). However, the rate is closely related to the concept of alterative use of funds.

Whether the investment project is accepted or rejected will be decided by the discounted net present value of the project. If the net present value (v) as shown in the above formula is positive, the project may be accepted. but if it is equal to or less than zero, it does not merit acceptance.

There are three different approaches to the acceptance criterion for the public investment projects, viz.. (a) Summation of discounted net flows method, (b) difference of aggregate benefit flows and cost flows method, and (c) internal rate of return method. We have already explained the first method.

If we take to the second method, we have to find out the net present value (V) by discounting the benefits (B) and costs (C) separately and work out the difference between the two. In this approach, the criterion for acceptance of the project is that the discounted benefits should exceed the Discount cost.

Thus B > C and V=(B-C) greater than 0

Where,
B stands for discounted present value of benefit flows,
C stands for discounted present value of cost flows, V stands for net present value of net present benefit, b0,b1,b2...bn are the benefit flows in periods 0, 1,2,..... n, and c0,c1,c2....cn are the cost flows in periods 0, 1,2,....n. The project will merit acceptance if the value of v is positive, while it will be rejected if the value turns out to be either zero or negative.
If we apply the third method, we have to find out what is known as the internal rate of return (R). The criterion for acceptance of the project is that the internal rate of returns (R) should be higher than the discount rate (r) The internal rate of returns is defined as that rate of interest (R) at which the not present value (V) of the project is zero.

$$V = \frac{X_0}{(1+r)^0} + \frac{X_1}{(1+r)^1} + \frac{X_2}{(1+r)^2} + \dots\dots + \frac{X_n}{(1+r)^n}$$
$$= \sum_{i=0}^{n} \frac{X_i}{(1+r)^i}$$

Thus the discount factor is inverse of the compound interest formula for that year and the flow of returns (or of cost) for the year is multiplied by the discount factor to get the present value.

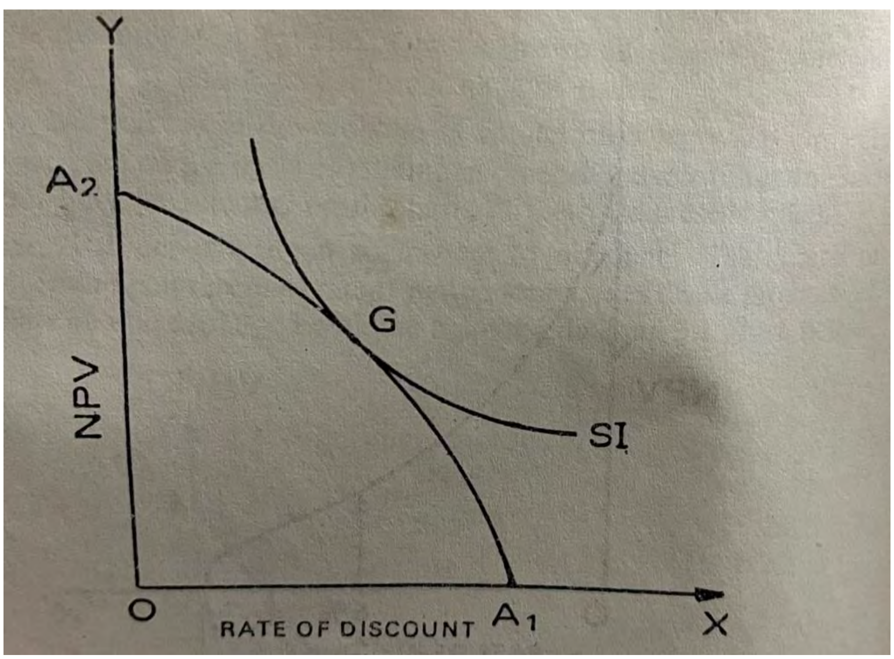
An investment project is acceptable if R>r As it appears from the above, the internal rate of return procedure is to experiment until one finds that the rate of discount makes the present value equal to zero. It should be mentioned here that in a riskless situation, it pays as invest if the internal rate of return exceeds the rate of interest or what we have called rate of discount (r) .

The present value method is technically superior, since the internal rate of return can give an incorrect result in special circumstances, as pointed out by LMD Little.

10.8 Social Rate of Discount

Since society prefers present to future, so future generations are likely to have higher levels of income. If the principal of diminishing marginal utility operates, then the utility gains to future generations from a given amount of benefits will be less than the trility gains to the present generations so the future gains must be discounted. The rate at which future benefits must be discounted to make them comparable with present benefit is called Social Rate of Discount. In other words, it is the rate of Premium which the society puts for preferring the present consumption to future consumption.

This is illustrated with the help of a diagram given below:



The present consumption A1 is taken along horizontal axis and future Consumption A2 taken along vertical axis. A1 A2 is the transformation Frontier or investment possibility curve. It consists of a series of projects arranged from right to left in order of their rate of return, the cost of sacrifice of present consumption and the return is the gain of consumption in future. The society will choose from the various investment possibilities so as to reach its highest social indifference curve S1. The society reaches an optimal position when transformation curve A1A2 equal its social indifference curve S1 at point G. The slope of the transformation formation curves represents the rate of return on investment and the social indifference curve represents the rate of time preference. Thus, social discount rate is determined by the equality of the rate of return on investment and rate of time preference at point G

The social discount rate is constant over time. A discount rate of 5 per cent might well lead to twice as much investment as one of the 10 per cent together with equivalent reduction in consumption. If the discount rate is high, short period projects with higher net benefits are preferred. On the contrary, when the discount rate is low, long period projects with lower net benefits are selected.

Since the benefits and costs are to occur in the future, they are discounted to find their present net worth so there is a problem of choosing a suitable rate at which future benefits are discounted. Generally, the market rate is used for this purpose but it fails to solve the purpose where there is a multiplicity of the rate of interest in the market or the private and social rate of discount may not concede, so there is no scientific way of choosing a suitable rate.

Pigour and Dobb regard the use of social time preference rate as pure myopia He alleges that people are victims of "defective telescopic facility that is why they prefer present consumption to future consumption. But they reject this view on the ground that society is a continuous entity and it has collective responsibility for future generations. So they favor zero social time preference rate because the present and future should have equal weights in the estimation of society According to Marglin's view this is an authoritarian rejection of individual preferences. Sen and Eckstein pointed out that the rational fear of death is sufficient for people to have a positive social time preference rate.

Hirschleifer and others use the concept of social opportunity cost to measure the social discount rate. The social opportunity cost is a measure of the value of society of the next best alternative use to which funds employed in public projects might otherwise have been put. The next best alternative use of funds is investment in the private sector. If they earn a rate of 6 percent, the public investment must also earn a rate of 6 percent or more. Thus, the social rate of discount is 6 percent. If the public project earns 6 percent, it should not be undertaken. Thus, the social opportunity cost method of calculating the social discount rate is not free from certain shortcomings. Hence, it is difficult to find a rate of return that may measure the social opportunity cost of funds. According to Feldstein, the social opportunity cost depends on the sources of particular funds; it must reflect the social time preference function. He, therefore, suggests a method of combining the two. The procedure is to allow for the social opportunity cost of funds directly by placing a shadow price on the funds used in the project and to make all intertemporal comparisons with the social time performance rate. On the other hand, Mishan suggested that if the government has the power to invest in the private sector, then the social opportunity cost rate can be used social rate of discount.

Marglin has argued for a synthetic discount rate. They preassumed that the social time preference rate is less than the social opportunity cost rate. Therefore, there will be under-investment in the economy which requires a synthetic discount rate for public investment. The synthetic discount rate is some weighted average of the social time preference rate and the social opportunity cost rate.

Baumol does not agree with Marglin that there should be a synthesis of the two rates. He regards the choice of rates as indeterminate because of the existence of risk and institutional barriers which will prevent the two rates to be in equilibrium. Pearce suggested that the correct answer to the choice of social discount rate does not lie in the selection of a single rate, but in the use of both the social time preference and the social opportunity cost rates according to the type of forgone expenditure. He concludes that it wouldn't matter which rate is chosen. If equilibrium conditions prevail, the necessity for the estimation of a synthetic discount rate disappears.

10.9 Limitations

Cost-benefit analysis is a powerful technique related to the selection and rejection of a project even then it's not free from drawbacks which are as under:

1-Difficulties in benefit assessment: The correct estimation of benefits from a project becomes difficult due to uncertainty regarding the future demand and supply of the products from a new project and their prices. Another difficulty arises from the existence of external economies which may lead to the selling of the product of the project at a price equal to marginal cost and not equal to average which, will create a deficit, and efforts are made by a special levy on consumers or through budgetary resources.

2 Arbitrary Discount Rate: The social rate of discount assumed for any project is arbitrary. There is no perfect method to find a social discount rate. It remains a subjective phenomenon. But if there is a small change in the social discount rate it may change the full results of project evaluation. The arbitrarily large discount rate does not help in calculating the net present value of the benefits of long-term projects,

3. Ignores Opportunity Cost. it also ignores the problem of opportunity cost Griffin and Enos state that if all prices reflect opportunity costs, all projects for which B/C I would be chosen.

4- Problem of Externalities. The side effects of a project are difficult to calculate in this analysis. There may be technological and pecuniary externalities of a river valley project, such as the effects of flood control measures or a storage dam on the productivity of land at other places in the vicinity.

5. Difficulties in Selecting Appropriate Decision Rules. There are three decision rules for the evaluation of a project. These are the NPV criterion, IRR criterion, and BCR criterion. All these criteria have their advantages and disadvantages. Therefore, it becomes difficult to decide as to which criteria should be used for the evaluation of the project because the wrong selection will lead to false conclusions.

6. Difficulties in the Cost Assessment. Cost estimates are made based on the choice of techniques, locations, and prices of factor services used. Market prices of factors of production are used for

this purpose provided they reflect opportunity cost. But in underdeveloped countries, market prices usually do not reflect the opportunity costs, because there are fundamental disequilibria which are reflected in the existence of massive under-employment at the prevailing level of wages, the deficiency of funds at prevailing interest rates, and the shortage of exchange at the current rate of exchange. The equilibrium level of wage rates will be considerably lower than market wage while the equilibrium interest rate will probably be much higher than market rates. To remove this difficulty the use of shadow prices or accounting prices has been suggested by J.Timbergen and H.B. Chenery. These shadow prices reflect the intrinsic value of factors. In the cost-benefit analysis, we can't take the opportunity cost of labor as zero.

7-Neglects joint benefits and costs: There are several direct and indirect benefits flowing from the river valley project but it's difficult to evaluate and calculate such benefits separately.

8-Adjustment of risk and uncertainty: There are three ways to do this; at the time of calculating the length of project life, the discount rate, and by making due allowance in benefits and costs. It is advantageous to use the government borrowing rate.

10.10 Conclusion

The greatest specific usefulness of this analysis is to evaluate costs as well as benefits in selecting among alternative means to accomplish given ends. It should be applied to cases where quantification of costs and benefits is possible. One great advantage is that it seeks out the least cost solution, since it emphasizes economic consideration in decision making process. So it is a sound approach for efficient use of resources. Rest and Turvey mention one advantage of this analysis that it forces those responsible to qualify costs and benefits as far as possible rather than rest on qualitative judgments. Some clues available for a price to be chased. It helps to reject inferior projects.

10.11 Key Words

Total Cost

Total Benefit

Social rate of discount

Project Cost

Real and Nominal Cost

Primary Cost

Secondary Cost

Associated Cost

10.12 Model Questions

1. What is Project evaluation? Give its necessity.
2. Briefly explain cost benefit analysis account for its general conditions.
3. What are the limitations of cost benefit analysis?
4. Write short notes on
    - Social discount
    - Primary and secondary cost
    - Real and Nominal Cost

10.13 References

1. Growth and Development by A P Thirwal.
2. Government Finance Economic of the Public sector by Due and Fried Lander.
3. Public Finance by Dr R K Lekhi (Kalyani Publisher)
4. Public Finance and Fiscal Policy by RK Chowdhary (Kalyani Publisher)
5. The Principles of Practical Cost Benefit Analysis by Sudgen and Williams (Oxford University press 1978)
6. Leading Issues in economic Development by G M Meier (Oxford University press 1975)

Unit-11: Reforms in Expenditure Budgeting; Performance Budgeting & Zero based Budgeting

Structure:

11.0 Learning Objectives

After going through this unit the learners will be able to understand;

- Meaning and purpose of Budget
- Classification of Budget
- Traditional and Modern Classification of Budget
- Zero base Budgeting and its Limitations
- Performance Based Budgeting
- Traditional Budgeting

11.1 Introduction

Efficient budgeting practices are crucial for effective governance and fiscal discipline. In recent years, governments worldwide have been embracing various budgeting reforms to enhance transparency, accountability, and performance. This article explores three significant budgeting reforms: expenditure budgeting, performance budgeting, and zero-based budgeting. These reforms aim to streamline spending decisions, allocate resources effectively, and optimize the utilization of public funds.

In the dynamic and ever-changing landscape of public finance, governments worldwide are increasingly recognizing the need for efficient and effective management of their expenditure budgets. Sound expenditure budgeting practices are vital for ensuring optimal allocation of resources, enhancing accountability, and achieving desired policy outcomes. However, traditional budgeting approaches have often been criticized for their rigidity, lack of transparency, and limited ability to adapt to evolving needs and priorities. As a response to these challenges, a wave of reforms in expenditure budgeting has emerged, aiming to transform the way governments plan, allocate, and monitor their financial resources.

These reforms in expenditure budgeting held a new era of strategic and performance-oriented budget management. They seek to align public spending with policy objectives, enhance fiscal sustainability, and promote greater transparency and accountability. By introducing innovative techniques and methodologies, these reforms challenge the traditional and incremental budgeting processes, replacing them with more flexible and evidence-based approaches.

One of the key drivers of expenditure budgeting reforms is the growing demand for results-oriented governance. Citizens and stakeholders are increasingly demanding greater transparency and accountability in the use of public funds. They expect their governments to deliver tangible and measurable outcomes that address their needs and aspirations. In response, governments are embracing performance-based budgeting, which emphasizes the achievement of results rather than mere inputs or outputs. This approach encourages a results-focused mindset, promotes efficiency, and allows for better evaluation and feedback loops to improve future budgetary decisions.

Moreover, expenditure budgeting reforms also prioritize the integration of technology and data analytics. Recognizing the transformative potential of digital tools and data-driven insights, governments are leveraging advanced technologies to enhance the efficiency, accuracy, and timeliness of budgetary processes. From automated financial systems to real-time monitoring and evaluation platforms, these reforms harness the power of digital solutions to streamline budget execution, minimize waste, and ensure greater transparency in financial management.

Furthermore, expenditure budgeting reforms emphasize the importance of stakeholder engagement and participatory decision-making. By involving citizens, civil society organizations, and other stakeholders in the budgeting process, governments can ensure that diverse perspectives and priorities are considered. This participatory approach fosters greater public trust, fosters collaboration, and enables better allocation of resources based on the needs and aspirations of the society as a whole.

In conclusion, reforms in expenditure budgeting are revolutionizing the way governments manage their financial resources. By embracing strategic, performance-based, technology-driven, and participatory approaches, these reforms aim to enhance efficiency, transparency, and accountability in public finance. As governments adapt to the complexities of the modern world, these reforms provide a roadmap for effective and responsible budget management, ultimately contributing to the achievement of sustainable and inclusive development.

11.2 Performance Based Budgeting

Performance-based budgeting is an approach to budgeting that focuses on the outcomes and results achieved by government programs and agencies. It aims to align funding decisions with the desired performance objectives and improve the efficiency and effectiveness of public spending. Several main concepts are employed in performance-based budgeting:

Performance Measures: Performance-based budgeting relies on the use of performance measures or indicators to assess the effectiveness and efficiency of programs. These measures can be quantitative (e.g., number of clients served, cost per unit of output) or qualitative (e.g., customer satisfaction, program quality). Performance measures provide a basis for evaluating the performance of programs and allocating resources accordingly.

Performance Targets: Setting specific performance targets helps to establish clear expectations for program outcomes. These targets define the desired level of performance that a program or agency should achieve. Targets can be based on historical performance, best practices, or policy goals. Performance targets facilitate monitoring and accountability, as they provide a benchmark against which actual performance can be measured.

Performance Budgeting Techniques: Performance-based budgeting incorporates various techniques to link funding decisions to performance outcomes. These techniques include:

a. Outcome Budgeting: This approach focuses on funding programs based on the desired outcomes or results they are expected to achieve. Budget allocations are tied directly to the accomplishment of predefined outcomes.

b. Program Evaluation: Rigorous program evaluation techniques are used to assess the effectiveness and efficiency of programs. The results of evaluations inform budget decisions, with well-performing programs receiving more resources and underperforming programs subject to scrutiny and potential funding reductions.

c. Performance Contracts: Contracts or agreements are established between funders (such as government agencies) and program providers to specify performance expectations. Funding is contingent upon meeting agreed-upon performance targets, providing incentives for improved performance.

d. Performance Reviews: Regular performance reviews are conducted to evaluate program performance, identify areas for improvement, and make informed budgetary decisions. Performance reviews involve analyzing performance data, conducting evaluations, and engaging stakeholders in the decision-making process.

Outcome-Based Budgeting: Performance-based budgeting emphasizes the allocation of resources based on the desired outcomes or impacts of government programs rather than just funding inputs or activities. It promotes a shift from traditional input-focused budgeting to a more results-oriented approach, where funding decisions are driven by the expected outcomes and value for money.

Transparency and Accountability: Performance-based budgeting emphasizes transparency and accountability in resource allocation. By linking funding to performance outcomes, it enables stakeholders, such as policymakers, citizens, and oversight bodies, to assess the effectiveness of public spending and hold government agencies accountable for achieving results.

The traditional budgeting system laid major emphasis on the financial aspects of the government operations. It is well known fact that the resources as the disposal of the government are always scarce in comparison to the various services which have to be provided to the society. Thus, government faces the same problem of choice-making caused by security versus multiplicity as an individual faces. All the altemative proposals should be weighed in terms of their respective c and benefits i.e., to compare the actual and expected results. No doubt, the Costs government can collect the information from various agencies but it is difficult to link the information with the financial data connected to the budget. United Nations viewed the lack of accurate information as it, reduces the usefulness of the budgetary approach ever for the purpose of legislative review and appropriation. Hence, the need was felt to develop the use of performance budgets.

The major break-through in the performance budgeting was noticed after the publication of the first However Commission Report in 1949 though some efforts were made to adopt in different parts of American states during 1940's. According to the report of the commission, the whole budgetary concept should be based upon functions, activities and projects initiated by the government. A.E. Buck also agreed with the report of the Task Force Report and recommended performance budgeting. To quote him, A performance budget should be substituted for the present budget, thus, presenting in a document of much briefer compass the government's expenditure

requirements in terms of services, activities and work projects rather than in terms of the things bought."
On the basis of performance from 1951, Federal U.S. Government decided to formulate its budget. Later on other countries have also followed this approach. In India, the Administrative Reform Commission Study Team recommended to adopt the performance budgeting on the following grounds:
1. To improve the formulation of the budget and facilitate the process of decision-making at all levels of government.
2. To provide efficient accounting system of the management with additional tool for controlling the financial operations.
3. Performance audit should be more purposeful and effective.
4. The purposes and objectives of the funds should be clearly mentioned to bring out the programs in financial terms.
5. Legislature ought to understand and review the budget properly.

The Administrative Reform Commission suggested the concept of performance budgeting in 1970-71 in all the government departments while the government started the preparation of performance budget in a phased manner from the year 1968-69. However, now all the ministries and departments of the Government of India have been preparing performance budget since 1975-76.

Limitations

The technique of performance budgeting suffers from certain limitations:

1. This system involves quantitative and financial evaluation of government functions, activities and programs which is absolutely
Impossible. In other words, it ignores qualitative evaluation.
2. The performance can serve useful purpose only if there are well-
Organized departments and organizations to identify with definite activities,
Projects and programs.
3. This system has limited scope in case of objectively measured operations of the government as law and order, defense, external affairs etc.
4. This system has no universal applicability.

Conclusion:
Performance-based budgeting aims to improve decision-making by integrating performance information into the budget process, fostering a culture of continuous improvement, and promoting efficient resource allocation based on program effectiveness and desired outcomes.

11.3 Traditional vs. Performance Based budgeting

Traditional Budgeting:

Traditional budgeting is a budgeting approach that has been widely used by governments and organizations for many years. It follows a top-down approach, where the budget is determined based on historical spending patterns and incremental changes from previous budgets. In traditional budgeting, the focus is primarily on inputs and expenditures rather than on outcomes or performance.

Key characteristics of traditional budgeting include:

Historical reference: Traditional budgeting relies heavily on historical data, using previous budget cycles as a reference point for determining future budget allocations. It often involves adjusting previous budgets by a certain percentage or taking into account inflation rates.

Incremental approach: The budget is typically prepared by making incremental changes to the previous year's budget. These changes are based on factors such as inflation, cost increases, and anticipated changes in demand or service levels.

Input orientation: Traditional budgeting focuses on inputs and inputs alone. It mainly looks at how much money is allocated to various departments, programs, or activities without explicitly linking those inputs to expected outcomes or performance metrics.

Fixed budget period: Traditional budgeting typically operates on an annual cycle, where budgets are set for a fixed period, usually a fiscal year. These budgets remain relatively unchanged until the next budget cycle, regardless of changes in circumstances or performance.

Performance-Based Budgeting:

Performance-based budgeting (PBB), also known as performance budgeting, is an alternative approach that aims to link budget allocations to the outcomes or performance achieved by government agencies or organizations. PBB emphasizes results and accountability by measuring the effectiveness and efficiency of programs and activities.

Key characteristics of performance-based budgeting include:

Outcome-focused: PBB shifts the focus from inputs to outcomes. It seeks to align budget allocations with specific performance goals, targets, and desired outcomes. This approach encourages agencies to define clear objectives and establish performance metrics to measure progress.

Performance measurement: PBB involves the systematic measurement and evaluation of the performance of programs and activities. Performance indicators are established to assess the efficiency, effectiveness, and impact of different initiatives. Budget decisions are then based on these performance assessments.

Linking resources to performance: In PBB, the budget allocation process is directly tied to the performance of programs and activities. High-performing programs may receive increased funding, while underperforming ones may face budget reductions or reallocation of resources to more effective areas.

Flexibility and adaptability: Unlike traditional budgeting, PBB allows for greater flexibility and adaptability. Budget allocations can be adjusted throughout the budget cycle based on real-time performance data and changing priorities. This enables organizations to allocate resources more effectively and respond to emerging needs.

Transparency and accountability: PBB promotes transparency by requiring agencies to demonstrate the results and outcomes achieved with the allocated resources. It enhances accountability as decision-makers can assess whether the expected outcomes were delivered and make adjustments accordingly.

Critique and Comparison:

While performance-based budgeting offers several advantages over traditional budgeting, it also faces some challenges and criticisms. Here's a critical comparison of the two approaches:

Advantages of Traditional Budgeting:

Simplicity: Traditional budgeting is often easier to implement and understand compared to performance-based budgeting, which involves complex performance measurement systems and data collection.

Stability and predictability: Traditional budgeting provides stability and predictability since budget allocations remain relatively unchanged throughout the budget period, which can be beneficial for long-term planning.

Disadvantages of Traditional Budgeting:

Lack of performance focus: Traditional budgeting does not explicitly link inputs to desired outcomes, which can lead to inefficient resource allocation and hinder performance improvement.

Inflexibility: Traditional budgeting tends to be inflexible and may not allow for adjustments in resource allocation based on changing priorities, emerging needs, or evolving circumstances.

11.4 Zero Based Budgeting:

Since every outlay in the budget has some attainment objective, either short-run or long-run, it is necessary to regularly examine the expenditure components in the light of anticipated results. In the case of budgeted expenditure having been associated with long term objective, the time-bound expected result-component should be examined occasionally. This is what is done by Zero-base budgeting. It is not necessary, however, that each and every program be reviewed afresh or restructured anew every year under the zero-base budgeting, though such necessity might arise in case of some of the programs. But it does require that programs should not go unscrutinised in any case for a long period. Such budgeting is a new technique of bringing the spending agencies under a regular scrutiny and accountability. Zero-base budget, hence, acts as a constant reminder of the necessity of utmost efficiency in public expenditure and in resource allocation programs.

Zero-base budgeting requires organizations' preparing their budgets not to take earlier year's expenditure for granted, as in the case of conventional budget, but should start afresh. It means that while framing its budget for the ensuing year, an organization should start from zero point instead of treating the current budget as the starting point or the base for next year's budgetary exercise. This concept implies that a complete re- examination of on-going programs and activities should be carried out to assess their continued utility instead of following the incremental approach to budgeting. Under it, new expenditure proposals are to compete on the same footing with the on-going expenditures based on their respective merits to claim a share of the available resources.

A system of zero-base budgeting was first introduced in a formalized way in the United States department of agriculture in its 1964-budget. But it proved unsuccessful. In India, its first application was in the department of science and technology in 1983. The Seventh five-year plan had also emphasized the need for introducing zero-base budgeting. The Government of India formally introduced this approach through a letter addressed by finance ministry in July, 1986 to various ministries and departments asking them to adopt the system from 1987-88 budgets. It also emphasized the need for public sector enterprises and departmental undertakings taking to this methodology of budgeting.

However, few departments have looked seriously at this approach. The only department which has implemented it in true sense is the department of space, which has already set a tradition in this matter. The present unfavorable financial situation of India has pushed up further the necessity as well as opportunity of introducing the system on a wide scale. If in this situation, the country is able to pressurize its introduction in various departments and ministries, the chances of its success are all the greater. In simple words, zero base budgeting is a way to justify its budget requests from the bottom up, evaluating alternative program packages and ranking programs as to select the best alternative and allocation of resources. In the words of Peter A Phyrr, zero base budgeting is an operating planning and budgeting process that requires each manager to justify a budget request in detail. Prof R. A Musgrave defines it, as a team suggests the idea is to consider the budget as a whole rather than to examine incremental change only.

The former US President Mr. Jimmi Carter has stated that in zero bases budgeting the budget is broken into units called decision packages which are prepared by managers at each level. These packages cover every existing or proposed activity of each department. The packages include an analysis of purpose, cost, measures of performance and benefits, alternative courses of action and consequences of not performing the activity. Then all packages are to be ranked in order of priority. After several discussions between department heads and chief executive, the rankings are finalized and packages up to the level of affordability are approved and funded .Thus, in this system, the exercise is taken up from a clean slate.

Neither the base year nor the minimum level of expenditure is taken as given which is quite in contrast with the current prevailing system of incremental budgeting. All the financial requirements of the various units of an organization are critically assessed as against the traditional budgeting system in which the financial allocations are just increased.

Characteristics of ZBB:

The following are the main characteristics of the Zero-Base Budgeting:

1. Identification of Decision Unit: A decision unit may be program of a project. In each and every case decision units has an Identification manager. The decision unit has the responsibility to implement a particular allocation.

2. Decision Package: Decision package has revolutionized the budget concept. It is a document that identifies and describes each decision unit so that the management can evaluate it and rank it. The decision package is a statement of objectives, current operations, alternatives and

Now, recently, zero base budgeting approach has been adopted by the department of Central Government from April 1, 1987, as one of the steps to control public expenditure. It will be applied to both non-development and development expenditure. In short, ZBB requires:
(i) Identification and shortening of objectives.

(ii) Selecting the best alternative through cost benefit and cost effect-effectiveness analysis.
(iii) Investigation of various alternative ways attaining those objectives and targets.
(iv) Prioritization of various programs.
(v) Switching of resources from programs with lower priority to those with higher priority.
(vi) Eliminating those programs which have outlined their practical utility.

Indian economic environment could rightly be said conducive for the implementation of Zero Base Budgeting. Executive participation, work priorities, better administration etc., are the factors which could facilitates the implementation of the system. However, there exists dire need to look into the overall impact of some of the factors like multi-level decision making.

Lack of proper MIS etc. As these impediments could badly effect the proper implementation of the system, therefore, efforts should be made to minimize their adverse impact.

The successful implementation of the system calls for the overall re- view of the various activities of the ministries or departments, if necessary, in the initial stages the services of outside experts could be requisitioned. Moreover, to enable the people associated with the implementation to understand the objectives and concept of the system in a better way, it would be essential to take necessary steps to educate them about all the important aspects of the new system. With a view to train the executives who are responsible for the smooth and effective implementation of system, services of budget analysts could be requisitioned.

Thus, from the above analysis of zero base budgeting it can be better concluded that this system can be implemented effectively with necessary safeguards. If the system of zero base budgeting is implemented with the required preparation, it would go a long way in helping the country to effectively control the unproductive expenditure.

Expected Benefits

The Pro-Zero-Base Budgeting claims that the system would certainly prove very effective as it highlights

(i) The budget process in a comprehensive way making clear cut analysis of priorities, objectives and needs of the economy.
(ii) It is a link between learning and budgeting
(iii) It will help to raise cost consciousness and evaluate the cost effectiveness of its

11.5 Conclusion

In conclusion, reforms in expenditure budgeting are revolutionizing the way governments manage their financial resources. By embracing strategic, performance-based, technology-driven, and participatory approaches, these reforms aim to enhance efficiency, transparency, and accountability in public finance. As governments adapt to the complexities of the modern world, these reforms provide a roadmap for effective and responsible budget management, ultimately contributing to the achievement of sustainable and inclusive development.

11.6 Summary

In modern times budget is considered as an important instrument as of economic policy of the national economy. The budget is a comprehensive plan and program of the future of the basis of past experience. The various concepts of budget like performance budgeting, traditional budgeting helps the government to know the merits and loopholes of various budget and plan and takes a plan of action which lead to development of human capital, building of economic overheads, removal of poverty, balanced regional development and check to misuse of public funds. Hence by analyzing various concepts of budgeting, government can achieve the desired goals of the country.

11.7 Key Words

Classification of budget

Traditional Classification

Modern Budgeting

Zero Based Budgeting

Performance Based

Additional Budgeting

11.8 Model questions

1. Define the concept of Zero Base Budgeting. Give its need and pre-conditions.
2. What are the various objects of Zero Base Budgeting? Whether these
3. Objects have been implemented in India.

4. Write a detailed note on the mechanism of Zero Base Budgeting in India Point out its constraints, if any.

5. "Zero Base Budgeting is an effective instrument of fiscal control". Discuss.
6. Zero Base Budgeting is an improvement over the traditional Budgeting ?Discuss

11.9 References

1. K. L. Handa: Expenditure Control and Zero Base Budgeting (Indian Institute of Finance, Delhi, 1991).
2. Public Finance by R K Lekhi
3. Public Finance and fiscal policy by R K Chowdary
4. Public Finance by H Dalton
5. Public Finance by R A Musgrave

Unit-12: Trends & Lesson in Public Expenditure

Structure:

12.0 Learning Objectives

After going through this unit the learners will be able to understand;

- The meaning of Public Expenditure
- Classification of Public expenditure
- Difference between Private expenditure Public expenditure
- Trends in Public expenditure
- Trends in development and non-development expenditure
- Trends in Planned and non-Planned expenditure
- Role of Public expenditure during pandemic

12.1 Introduction

Meaning, Nature & Scope of Public Expenditure:

Public expenditure refers to the expenditure incurred by the central, and local governments to satisfy collective social wants. The advantages of public expenditure were not fully appreciated by the traditional economists, They considered market mechanism as a better method whereby the working of the economy could be guided and the allocation of resources could be decided. But today due to the continuous expansion of state activities and other public bodies the volume of public expenditure has been increasing is almost all countries of the world. As the scope of the functions of the government was restricted in the past there was no need for the theory of public expenditure. In the present century the development of the functions of the state in social matter and public utilities has increased public expenditure in a large degree. Accordingly the importance of public expenditure has also increased.

Scope of Public Expenditure:

Regarding the scope of public expenditure one could study two schools of thought viz., the classical and the modern. The classical believed in police state. This school restricts the functions of the government to defense, law and order, public debt and the necessities of civil administration. The classical economists never fully appreciated the advantages of public expenditure. They called for minimum taxation. As Antonio De viti De Marco remarked that taxes were regarded as a sort of hail that destroys part of the crop. Ricardo said that if people want a peaceful government it must reduce the budget. The statement of J.B. Say -The very best of all plans of finance is to spend little and the best of all taxes is that which is least in amount, was considered as a golden maxim. It was Sir Henry Parnell who said that every particle of expenditure beyond what necessity absolutely requires, for the preservation of order and for protection against the foreign attack, is waste and an unjust and oppressive imposition of the public. Adam Smith in The Wealth of Nations tells that the sovereign has only three cuties namely defense, that is, protection of the society from invasion, administration of justice and maintenance of economic institutions. In a police state - above view may be the guiding spirit but in a welfare state it does not hold good.

View of Modern Economist:

Modern economists want state intervention in every field. The government should do everything. They believe in the often quoted remark that, nowadays we are all socialists. Thus Adolph Wagner, a German economist presented his famous law of increase of state activities. He states that comprehensive comparison of different countries and different times show that, among progressive peoples with which alone we are concerned, an increase regularly takes place in the activity of both the central and local governments." This increase is both extensive and intensive. The central and local governments constantly undertake new functions, while they performs both, old and new, functions more efficiently and completely. In the way the economic needs of the people, to an increasing extent and in a satisfactory fashion are satisfied by the central and local governments. Prof RA Musgrave, the twentieth century economist advocated public expenditure since a government is forced to do many activities such as

(1) Activities to secure a reallocation of resources.

(2) Redistribution activities

(3) Stabilizing activities

(4) Commercial activities

As Mrs. Ursula K. Hicks remarked, in the present age we have discovered so many public wants the budgets tend to be planned on the expenditure side.

12.2 Classification of Public Expenditure

Public expenditure may be classified in several ways. According to H Dalton, the following are the various items of public expenditure:

1. Maintenance and equipment of armed forces and the police. Administration of justice;
2. Maintenance of the ceremonial or nominal head of the state and of diplomatic representatives abroad: 4. Maintenance of the machinery of civil government including ministers, legislators and civil servants.
3. Public debt charges including interest. Repayment cost of management;

4. Development of industry, supply of currency and
5. Services, transport services; and
6. Health education, child allowances, pensions and ot security, price subsidies.

Expenditure on some of these items aims at preserving the community and others at improving the quality of society.

Mr. S. Hicks has classified the public expenditure in to

1. Defence expenditure
2. Civil expenditure
3. Economic expenditure
4. Social expenditure. Adam Smith's classification of public expenditure is known as functional classification.

He believes that the government has to perform four functions namely maintenance of law and order, justice, maintenance of public facilities and its own sovereignty. Public expenditure, hence, should be classified only in relation to these functions. Charles F Bastable also supported this classification. The main merit of this classification is that public expenditure in different countries can be compared and evaluated. In the modern world with the increase in functions of the state Adam Smith's classification may not be adequate. For these reasons Seligman, Mill and others criticized this classification of public expenditure. Departmental Classification:

This is done in terms of expenditure incurred by agriculture, industry, defense, revenue, labor etc.

Departmental calcification poses a problem. In the case of defense department, it becomes to know the amount spent on defense education, defense production and defense administration.

Optional and Obligatory Expenditure:

This type of classification takes into account the nature of expenditure whether it is obligatory or optional .Some kinds of expenditure are optional while others are obligatory. For instance expenditure on defense, justice and maintenance of economic institutions are obligatory but that of social security is optional. This classification is also called the secondary and primary classification of public expenditure. Nowadays however many kinds of optional expenditure have assumed importance and become obligatory.

Transfer and Non-transfer Expenditure:

Pigou has classified public expenditure by taking into account the principle whether it involves the use of goods and services or not. When it does, it is called real or non-transfer public expenditure. On the other hand, if public expenditure does not involve the use of goods and services, it is known as transfer expenditure. Payments for the purchase of raw materials fall under real expenditure and pensions under transfer expenditure. Subsidies to industries also fall under this heading because they do not involve any direct use of goods and services.

Divisible and Indivisible Expenditure:

Expenditure that confers particular benefits on individuals is called divisible expenditure. On the other hand expenditure that confers common benefits is called indivisible expenditure. Expenditure on defense is indivisible in character, but that on medical and health services is divisible.

Purchase Prices and Grants:

Dalton has classified public expenditure into prices and grants. In the case of the former a return is realised. The individual should render a service in return for the expenditure incurred by the government. In the case of the latter, no return is visualized. This type of expenditure is similar to transfer expenditure. In the case of grants no returns are expected by the government. The money spent by the government on salaries and wages and on the purchase of raw materials fall under the first group. The expenditure by way of subsidies on medical treatment, grants to educational institutions and the like falls in the second group. Sometimes there is an element of grant in the price expenditure. The effects of purchase price are on production, but those of grants are on distribution. Grants may be divided into two viz., direct grants and indirect grants. They are direct when the benefits from a grant reach directly to the beneficiary e.g. old age pension.

They are indirect when the benefits from a grant are passed on to others. Subsidy to industrialists is an indirect grant.

Economic Classification:

According to this classification public expenditure is divided into current expenditure and capital expenditure. If public expenditure brings benefits to the present, it is called current public expenditure, if it brings future benefits it is known as capital expenditure. In the latter case, the gestation period, during which no profit is expected to accrue, is taken in to consideration. Productive and unproductive Expenditure: According to this classification.

Expenditure which is in the nature of investment in the quality and quantity of production is called as productive expenditure and expenditure which is in the nature of consumption is called unproductive expenditure. Expenditure on public sector enterprises and on building up infrastructure is called productive expenditure while expenditure on defense, administration, maintenance of law and order is unproductive expenditure.

Cohn and Plehn have classified public expenditure on the basis of benefit, which public expenditure confers on different sections of people in society.

- Expenditure which confers common benefit on all: public expenditure incurred on the general administration, legislatures, defense, transport etc. benefits the entire society in general.
- Expenditure which confers special benefit on some people: Public expenditure incurred on providing police protection, justice etc., provides security of life and property to the entire community. However comparatively greater benefit from these services accrues to the weaker sections of society who need the protection of police and justice more than others. Thus these services affect the entire community in general and some groups of persons in particular.

- Expenditure which directly confers special benefit on certain persons and indirectly on the entire society: Social security, public welfare education, unemployment relief, old age pension etc. are such items which are administered with the aim of directly helping the particular section society. However, their indirect effect is experienced by the entire society.

- Expenditure which confers special benefit on some individuals: Some public expenditure is incurred for the benefit of a particular group of society, such expenditure does not confer advantage on the entire society or even any group other than those for whom it is intended by the government. Subsidy given to particular industries, subsidized low-cost housing provide to the poor, free mid-day meals given to poor parent's children in schools are public expenditures of such type.

This classification is good in so far as it touches on the nature of benefit which such expenditure confers on the people. In fact, it is natural for the common man to be concerned with the benefit he is getting from public expenditure than with the other technicalities of expenditure. However, there is a serious defect which makes it logically imperfect and scientific. That the division provided in this classification is not mutually exclusive and one may overlap the other. It is very difficult to distinguish between the expenditure which entirely benefits the particular group of people or which only indirectly helps such section and helps mainly the general community.

Roscher divides public expenditure into:

(1) Necessary
(2) Optional
(3) Superfluous or ornamental.

This classification is based on the division consumption goods into necessaries, comforts and luxuries. Here again the distinction is a matter of opinion. On the basis of revenue Prof. Nicholson has divided expenditure into following four heads:

1. Expenditure producing direct return
2. Expenditure indirectly producing revenue
3. Expenditure producing partial return
4. Expenditure producing full return

The revenue classification of the public expenditure has the great advantage of revealing the capacity of the state to incur any particular expenditure. This classification is one sided. The main purpose of public expenditure is not to yield revenue but to confer benefits on the community. Consequently though it is of great interest to the policy-makers the general public is interested in the public welfare which public expenditure brings to it.

J. K. Mehta has given a new classification of public expenditure. The basis of this classification is either the expenditure point for groups or for individuals. There is certain public expenditure which is incurred for the people at large in such a way that they are not able to control the amount that the government decides to spend. On the other hand, there is the public expenditure which is incurred, in the first instance, for individuals in such a manner that they are able to control its amount by their decisions to utilize more or less of the services provided by the government. One cannot exclusively separate public expenditure to the first type or to the second type. As Prof. Mehta himself recognizes, every public expenditure is a blending of both types.

Conclusion:

Though we have discussed about the different classifications of public expenditure, if we minutely examine all these classifications, it is to be found that none of these classifications appears perfect because the sphere of State activities is constantly increasing day-by-day. The nature and form of these activities are so varied and complicated that it is very difficult to perceive a perfectly free classification of public expenditure.

12.3 Trends in Public Expenditure

Broadly speaking, the trends in public expenditure in India have undergone several shifts over the years. Here are some key trends that have been observed:

1. Increasing Total Expenditure: Over time, India has witnessed a general upward trajectory in public expenditure. As the country's population and economy have

grown, so has the need for government spending to cater to various sectors and meet the demands of a developing nation.

2. Shifting Sectoral Allocation: The allocation of public expenditure across different sectors has evolved over time. Historically, significant portions of the budget were directed towards social welfare programs, such as education, healthcare, and poverty alleviation. In recent years, there has been a growing emphasis on infrastructure development, including transportation, energy, and urban development.

3. Subsidy Rationalization: India has traditionally provided subsidies for various sectors, such as agriculture, food, and fuel. However, in recent years, there has been a shift towards rationalizing and targeting subsidies to reduce fiscal burden and promote efficiency. This involves direct benefit transfers (DBT) and the implementation of schemes like the Goods and Services Tax (GST) to streamline indirect taxes.

4. Focus on Defense and Security: Defense expenditure has consistently been an important part of public spending in India. Given the country's geopolitical challenges and security concerns, defense expenditure has received significant attention. The government has been allocating substantial resources to modernize the armed forces and enhance national security capabilities.

5. Increased Devolution to States: India follows a federal system with a significant degree of fiscal decentralization. In recent years, there has been a trend of increasing devolution of funds to state governments, empowering them to address regional development priorities and ensure more effective implementation of central government programs.

6. Digital Initiatives: The Indian government has been actively promoting digitalization and technology-driven initiatives in various sectors. This includes digital governance, financial inclusion, and the use of technology to improve service delivery and efficiency. Investments in digital infrastructure and the expansion of digital services have been a focus of public expenditure.

7. Climate Change and Sustainability: As global concerns about climate change have grown, India has also started prioritizing environmental sustainability and renewable energy. The government has allocated funds for initiatives such as clean energy projects, afforestation, and the promotion of sustainable development practices.

It's important to note that these trends can vary over time and may be influenced by factors such as changes in government priorities, economic conditions, and social dynamics.

10.4 Trends in Development and Non Development Expenditure

Development and non-development expenditure in India have undergone significant trends and changes over the years. Let's delve into these trends extensively.

Development Expenditure:

Development expenditure refers to the government's spending on sectors that promote economic growth, infrastructure development, social welfare programs, and poverty alleviation. Here are the trends related to development expenditure in India:

1. **Increasing Allocation:** Over the past few decades, the Indian government has consistently increased its allocation towards development expenditure. This is driven by the aim to accelerate economic growth, bridge regional disparities, and uplift the living standards of its citizens.

2. **Infrastructure Development**: A major focus of development expenditure has been on infrastructure development, including transportation, power generation, irrigation, and urban development. The government has initiated various projects like the construction of roads, highways, railways, airports, and smart cities to improve connectivity and boost economic activities.

3. **Social Welfare Programs:** Development expenditure also includes funding for social welfare programs, such as healthcare, education, rural development, and

poverty alleviation. The government has implemented schemes like the National Health Mission, Sarva Shiksha Abhiyan, Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), and Pradhan Mantri Awas Yojana, aiming to improve the well-being of the population.

4. **Digital Initiatives:** In recent years, there has been a notable emphasis on digital initiatives as part of development expenditure. This includes promoting digital literacy, expanding internet connectivity, and digitizing government services through initiatives like Digital India, which aims to transform India into a digitally empowered society and knowledge economy.

Non-Development Expenditure:

Non-development expenditure refers to the government's spending on routine administrative expenses, debt servicing, defense, subsidies, and other recurring expenditures. Here are the trends related to non-development expenditure in India:

a. **Growing Share:** Non-development expenditure has historically occupied a significant share of the government's total expenditure. This is primarily due to the recurring nature of expenses such as defense, salaries of government employees, pensions, and interest payments on loans.

b. **Defense Expenditure:** Defense spending forms a major component of non-development expenditure. As India strives to maintain national security and modernize its armed forces, defense expenditure has witnessed consistent growth. Factors like geopolitical dynamics, modernization requirements, and internal security challenges contribute to this trend.

c. **Subsidies:** Subsidies, particularly those related to food, fuel, and fertilizers, have been a significant part of non-development expenditure. These subsidies aim to support vulnerable sections of the population and ensure affordability of essential commodities. However, there have been efforts to rationalize subsidies and target them more effectively to reduce the fiscal burden.

d. **Administrative Expenses:** Non-development expenditure also covers administrative expenses, including the salaries of government employees, pensions, maintenance costs, and other day-to-day operational expenses. As the government machinery expands to meet the needs of a growing population, administrative expenses continue to rise.

Conclusion:

It's important to note that the allocation between development and non-development expenditure can vary based on government priorities, economic conditions, and fiscal constraints. However, the overarching goal is to strike a balance between promoting economic growth through development expenditure and meeting the recurring expenses of governance through non-development expenditure.

12.5 Trends in Planned and Non Planned expenditure

Trends in plan and non-plan expenditure in India:

In India, the government's expenditure is divided into two categories: plan expenditure and non-plan expenditure. Let's understand the trends in these two types of expenditures:

Plan Expenditure:

Plan expenditure refers to the funds allocated by the government for implementing various development plans and schemes. It includes spending on sectors like education, healthcare, infrastructure, agriculture, and social welfare. Historically, plan expenditure has been a significant component of the government's budget, aimed at achieving specific developmental goals.

Trends in plan expenditure:

a. **Increase over time:** Over the years, there has been a general trend of increasing plan expenditure in India. The government has recognized the importance of investing in development and has allocated more funds towards planned initiatives to drive economic growth, reduce poverty, and enhance social welfare.

b. **Sector-specific focus:** Plan expenditure has witnessed shifts in focus across different sectors based on the government's priorities. For instance, there have been periods of increased allocations for infrastructure development, rural employment schemes, education, healthcare, and poverty alleviation programs.

c. **Five-Year Plans:** India used to follow Five-Year Plans, which outlined specific goals and targets for plan expenditure over a five-year period. However, the planning approach was discontinued after the 12th Five-Year Plan (2012-2017). Currently, the government has shifted to a more flexible and outcome-based approach for plan expenditure.

2-Non-Plan Expenditure:

Non-plan expenditure, also known as revenue expenditure, refers to the recurring expenses incurred by the government on day-to-day administration, defense, interest payments, subsidies, and pensions. It does not contribute directly to developmental projects or schemes.

Trends in non-plan expenditure:

a. **Dominant component:** Non-plan expenditure forms a substantial portion of the government's budget. It includes essential expenses like defense, salaries of government employees, and interest payments on loans, subsidies, and grants to states.

b. **Steady increase:** Non-plan expenditure has witnessed a consistent rise over the years due to factors such as inflation, salary hikes, increased defense spending, and interest payments on accumulated debt. This trend poses challenges for fiscal consolidation efforts and the allocation of resources for developmental purposes.

c. **Reforms and rationalization:** The government has initiated measures to rationalize non-plan expenditure. For example, subsidy reforms have been undertaken to reduce leakages and target subsidies to the deserving beneficiaries, resulting in better fiscal management.

It's important to note that the categorization of plan and non-plan expenditure has undergone changes in recent years. Starting from the financial year 2017-2018, the Indian government moved to a new classification called 'Capital and Revenue Expenditure' to streamline budgetary allocations and align them with outcomes and priorities.

Conclusion:

Overall, the trends in plan and non-plan expenditure reflect the government's efforts to strike a balance between developmental initiatives and essential administrative expenses while addressing the evolving needs of the country.

12.6 Trends in Public Expenditure in Union Budgets (in tables and graphs)

Expenditure of Government of India

(₹ करोड़) (In ₹ crore)

			2021-2022 Actuals	2022-2023 Budget Estimates	2022-2023 Revised Estimates	2023-2024 Budget Estimates
क केंद्र का व्यय		**A. Centre's Expenditure**				
स्थापना व्यय	I	I Establishment Expenditure	693272	692214	734619	744339
. केंद्रीय क्षेत्र की योजनाएं / परियोजनाएं	II	II Central Sector Schemes/Projects	1209950	1181084	1411729	1467880
केंद्रीय क्षेत्र का अन्य व्यय	III	III Other Central Sector Expenditure	1010748	1132813	1136588	1301542
		of which Interest Payments	805499	940651	940651	1079971
.		**B. Transfers**				

IV जिसमें से ब्याज भुगतान ख अंतरण केंद्रीय प्रायोजित योजनाएं	IV Centrally Sponsored Schemes	454366	442781	451901	476105
वित्त आयोग के अनुदान	V Finance Commission Grants	207435	192108	173257	165480
VI अन्य अनुदान/ ऋण/ अंतरण	VI Other Grants/Loans/Transfers	218031	303908	279138	347752

In the above table actual budget estimate and revised budget estimate and anticipated budget estimate has been depicted from the year 2021-2022, 2022-2023, 2023-2024 of government of India where we find there are differences among the three.

Effective Capital Expenditure of Government

(₹ करोड़) (In ₹ crore)

		2021-2022	2022-2023	2022-2023	2023-2024
		Actuals	**Budget Estimates**	**Revised Estimates**	**Budget Estimates**
पूंजीगत व्यय	Capital Expenditure	592874	750246	728274	1000961
पूंजी परिसंपत्तियों के सृजन हेतु सहायता अनुदान	Grants in Aid for creation of capital assets[1]	242646	317643	325588	369988
जोड़	**Total**	**835520**	**1067889**	**1053862**	**1370949**

/ /

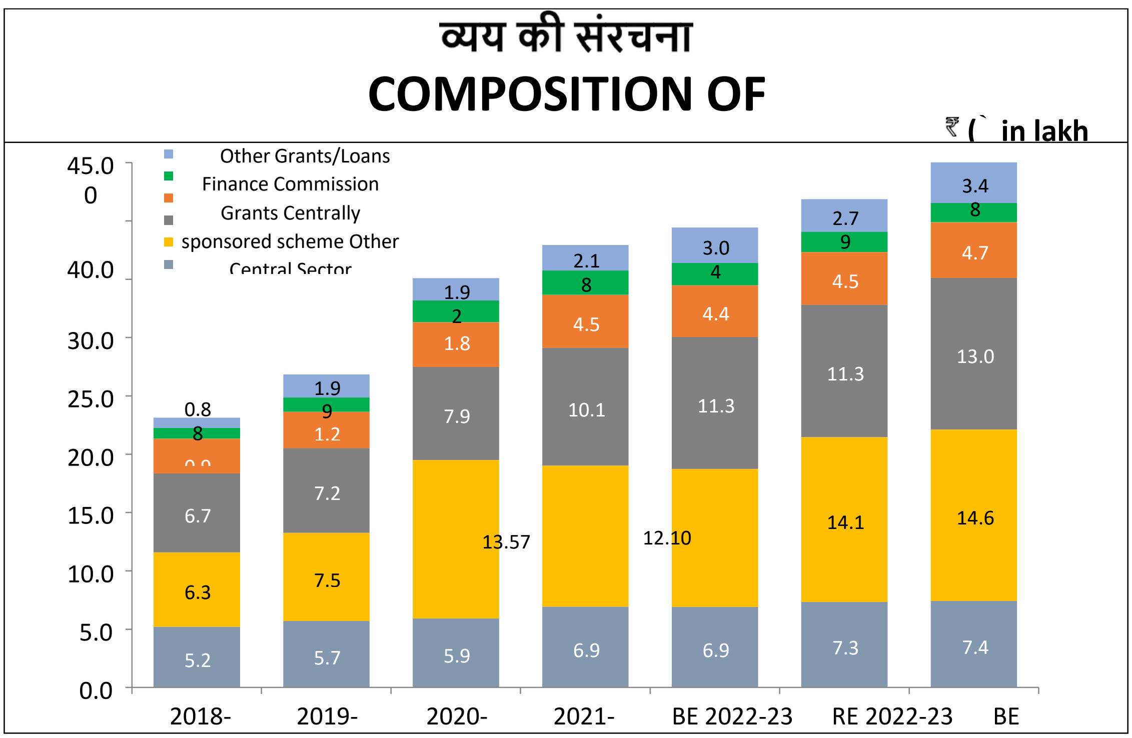
Provisions of Grants for creations of capital assets also includes allocations under Demand driven/entitlement based scheme MGNREGS,which would vary based on demand.

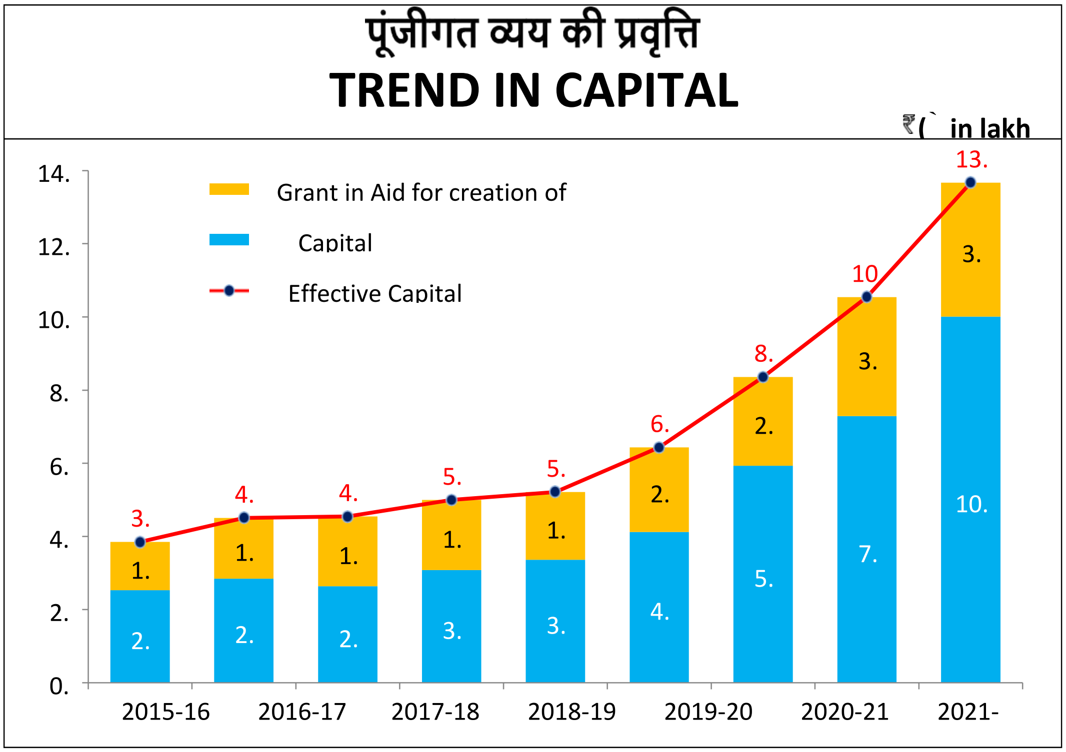
In the table above it is observed that the actual, revised and anticipated budget estimate are different from each other from year 2021-2022,2022-2023,2023-2024.

व्यय की संरचना

Composition of Expenditure

(% share of total expenditure)

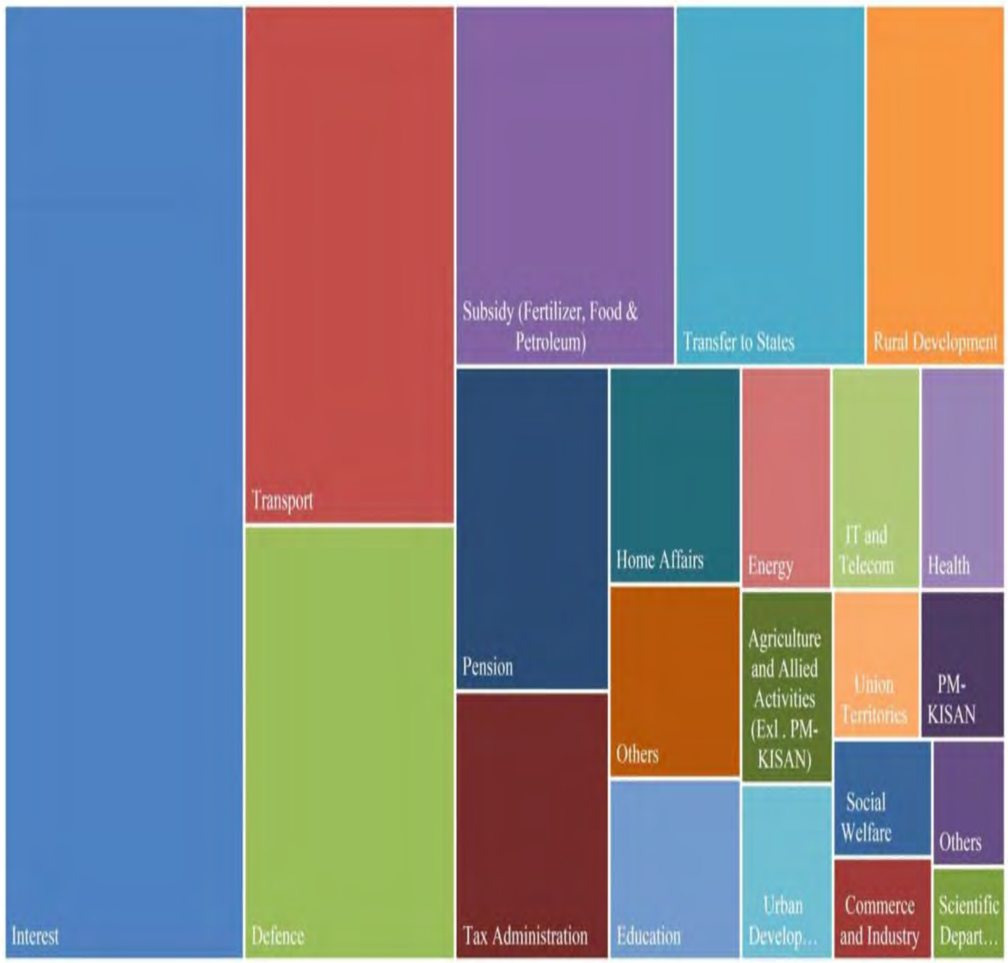




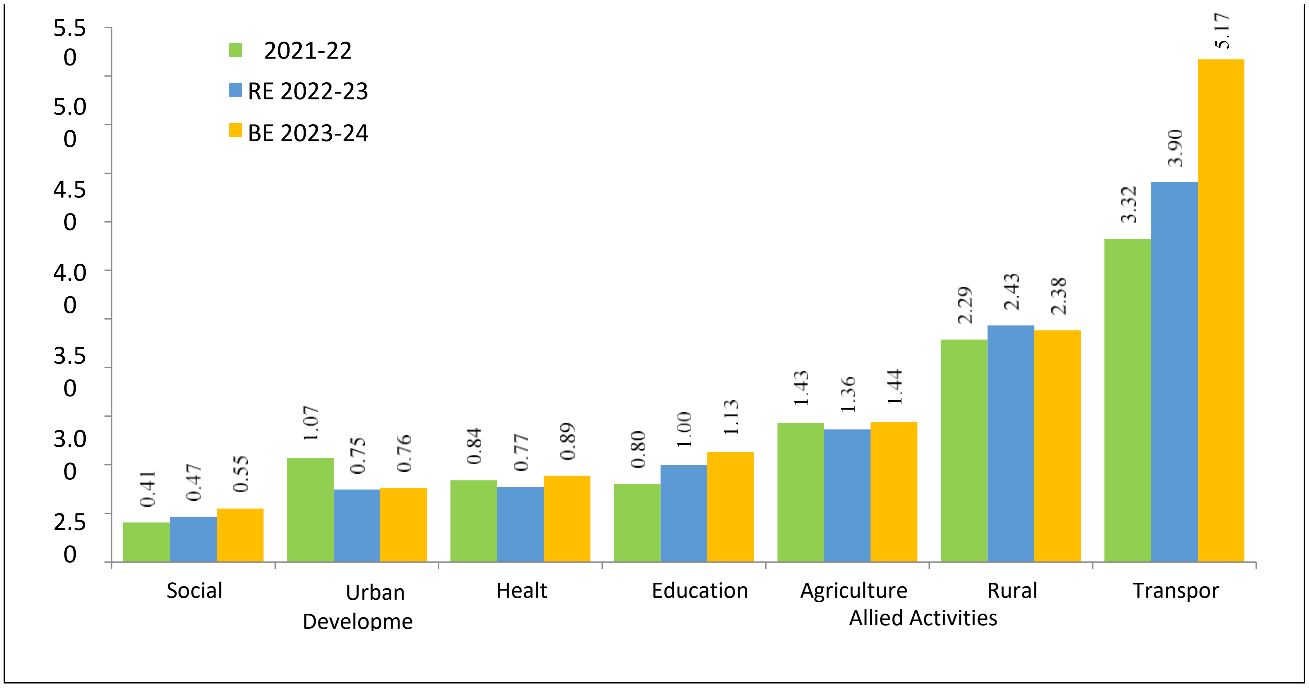
In the above diagram there is a composition of expenditure of government of India from year 2018-2019 to 2023-2024 where we find an increase in central sector schemes and establishment expenditure of center have been remarkably increased from 2018-2019, 2022-2023.

In the second diagram the trends in capital expenditure has been shone where you find there has been higher greater increase in capitals expenditure from 2016-2017 to 2023-2024 in comparison to increase in grand in ad for creation of capitals assets.

व्यय की संरचना
Composition of Expenditure



TREND OF MAJOR ITEMS OF EXPENDITURE



In the above diagram trends of major items of expenditure has been shown where we find there has been a constant increase in government expenditure in rural development, transport and agriculture from year 2021-2022 to 2023-2024.

12.8 Conclusion

The government's spending on Social Services increased significantly during the pandemic states the Economic Survey 2021-22. The Union Minister for Finance & Corporate Affairs, Smt Nirmala Sitharaman presented the Economic Survey 2021-22 in the Parliament here today. An increase of 9.8% has been made in the expenditure allocation to the Social Services sector in 2021-22 over 2020-21.

Social Sector Expenditure

The Survey states that the Centre and the State governments earmarked an aggregate of Rs. 71.61 lakh crore for spending on social service sector in (BE) 2021-22. Last years' (2020-21) revised expenditure has also gone up by Rs. 54,000 crore from the budgeted amount. The Economic Survey further elaborates that in 2021-22(BE), funds to the sector increased to 8.6% of Gross Domestic Product (GDP), as compared to 8.3% of GDP in 2020-21 (RE). During the last five years, Social Services accounted for about 25% of the total Government expenditure. In 2021-22 (BE), it was 26.6%.

The Economic Survey also notes that expenditure on health sector increased from Rs. 2.73 lakh crore in 2019-20 to Rs. 4.72 lakh crore in 2021-22 (BE), an increase of nearly 73%. For the education sector, increase during the same period was 20%, says the Survey.

Education

An assessment for the pre pandemic year 2019-20 for which data is available reveals that the number of recognized schools and colleges continues to increase between 2018-19 and 2019-20, except for primary and upper primary school, the Survey states. A priority to drinking water and sanitation in schools under the Jal Jeevan Mission, Swatchh Bharat Mission as well as under Samagra Sikhsha Scheme have been instrumental in providing required resources and creating assets in schools, notes the Economic Survey. As on 19.01.2022, under Jal Jeevan Mission 8,39,443 schools were provided tap water supply. Further, availability of teachers has improved at all levels continuously from 2012-13 to 2019-20.

The Survey observes that the year 2019-20 also saw a decline in drop-out rates at primary, upper primary and secondary levels. In 2019-20, school dropout rate at primary level declined to 1.45% from 4.45% in 2018-19. The decline is both for boys and girls. The decline has also reversed the trends of increasing drop-out rates during the previous two years.

The Economic Survey further states that the year 2019-20 saw an improvement in Gross Enrolment Ratio (GER) at all levels and improvement in gender parity. In 2019-20, 26.45 crore children were enrolled in schools. This has helped to reverse the declining trend of GER between 2016-17 and 2018-19. During the year schools enrolled about 42 lakh additional children out of which 26 lakhs were in primary to higher secondary levels and 16 lakhs were in pre-primary as per Unified District Information System for Education Plus (UDISF+).

Gross enrolment ratio in higher education recorded at 27.1% in 2019-20, slightly higher from 26.3% in 2018-19. The Economic Survey states that the Government has taken multiple initiatives at revolutionizing the higher education eco-system such as amendment to National Apprenticeship Training Scheme, Academic Bank of Credit, e PGPathshala, Unnat Bharat Abhiyan and scholarship for weaker sections.

The pandemic has had a significant impact on education system affecting lakhs of schools and colleges across India notes the Survey. The Survey observes that it is difficult to gauge the real time impact of repeated lockdown on education sector because the latest available comprehensive official data dates back to 2019-20. It refers to the Annual Status of Education Report (ASER) 2021 which has assessed the impact during the pandemic for education sector in rural areas. ASER found that despite the pandemic enrolment in age cohort of 15 to 16 years continue to improve as number of 'not enrolled' children in this age group declined from 12.1 % in 2018 to 6.6 % in 2021. However, ASER report also found that during pandemic, children (age 6-14 years) 'not currently enrolled in schools' increased from 2.5 % in 2018 to 4.6 % in 2021. To identify out of school children, their mainstreaming, and research sharing, the Government has shared the Covid-19 action plan with States and UTs observes the Survey.

The ASER report also found that during pandemic children in rural areas have moved out of Private to Government schools in all age groups. Possible reasons suggested for the shift are: shut down of low cost private schools, financial distress of parents, free facilities in Government schools and families migrating back to villages. In July 2020, the Government has issued guidelines for mainstreaming of children of migrant labourers, allowing for their smooth admissions into schools without asking for any document other than identity notes the Survey.

Although the availability of smart phones has increased from 36.5% in 2018 to 67.6 % in 2021, the ASER report states that students in lower grade found it difficult to do online activities compared to higher grade students. Non availability of smart phones for child to use and network of connectivity issues where the challenges faced by children. However almost all enrolled children have been provided textbooks for their current grade (91.9%). This proportion has increased over the last year, for children enrolled in both government and private schools.

The Economic Survey observes that steps have been taken by the Government to minimize the adverse impact of the pandemic on the education system to address the concern raised through private studies undertaken during the pandemic period. Government took measures such as distribution of text books at home, telephonic guidance by teachers, online and digital content through TV and Radio, TARA interactive chatbot, activity based learning through the Alternative Academic Calendar released by National Council of Education Research and Training etc. Other major initiatives for students during the Covid-19 pandemic include, PM e-Vidya, National Digital Education Architecture, NIPUN Bharat Mission etc, notes the Survey

12.7 Key Words

Development Expenditure
NonDevelopment Expenditure
Planned Expenditure
Non Planned Expenditure
Revenue Expenditure
Capital Expenditure
Public Expenditure
Private Expenditure

12.8 Model questions

1. Classify public expenditure and explain various views on public expenditure.
2. Distinguish between public expenditure and private expenditure and find out the differences between the two.
3. Explain the trends in Public expenditure in India.
4. Write Short Notes on
    - Trends in Planned and Non Planned Expenditure

- Trends in development and non-development Expenditure
- Government expenditure on social services during the pandemic

12.9 References

1. Nation Statistical organization- Budget document of central government of India.
2. Public Finance by R K Lekhi (Kalyani Publication)
3. Public Finance by R K Chawdhary (Kalyani Publication 1998 edition)
4. Public Finance in theory and practice by R A Musgrave.
5. Press information bureau, government of India ministry of Finance,2022

BLOCK 4: Public Debt, Union Budget

UNIT 13: Public Debt- Classical view of public debt; Compensatory aspects of debt policy

UNIT 14: Burden of Public Debt; Sources of Public Debt; Debt through Created Money

UNIT 15: Public borrowings and price level; Crowding out of private investment and activity; principles of debt management and repayment

UNIT 16: The Public Budget

Unit 13- Public Debt- Classical view of public debt; Compensatory aspects of debt Policy

Structure:

13.0 Learning Objectives

After going through this unit the learners will be able to understand;

- The meaning of Public debt
- Types of Public Debt
- Views on Public Debt
- Difference between taxes vs loans
- Difference between Public Debt and borrowings
- Theory of Public debt ; classical vs modern
- Objects of Public debts
- Forms of Public Debt
- Compensatory aspects of public debt

13.1 Introduction

Meaning:

Generally, public debt refers to loans raised by a government within the country or outside the country. Just like individuals governments also borrow when their expenditure tends to exceed their revenue. According to Philip Taylor, the debt is the form of promises by the Treasury to pay to the holders of these promises a principal sum and in most instances interest on the principal. Borrowing is resorted to provide a fund for financing a current deficit.

This definition very clearly explains the three features of public debt.

1. Public debt arises in the form of borrowings by the treasury or the state exchequer.

The government borrows a certain amount now but promises to pay in the future not only the principal amount but the interest also. The government borrows when there is a budget deficit i.e. public expenditure is more than revenue. Cari S. Shoup defines public debit as the receipt from the sale of financial

1. instruments by the government to individuals or firms in the private sector, to induce the private sector to release manpower and real resources and to finance the purchase of these resources or to make welfare payments or subsidies.

This definition makes the concept of public debt clear to include the following additional features:

1. When the government borrows, it results in a financial instrument like bonds (if it is a long-term debt) or treasury bills (if the borrowing is for a short period.
2. The government may borrow from various sources like individuals. Firms, banks, or even financial institutions, both internal and external.

1. Borrowing is one way of getting the amount from the private sector to

2. Release real resources and manpower which they might have used for other purposes.
3. Borrowings are used by the government to purchase such resources to make welfare payments or subsidies.

This definition has a normative implication because it justifies public debt for the purchase of real resources by the government for development or to make welfare
Payments.

13.2 Taxes vs Loans

Both taxes and loans help to finance public expenditures. But there are fundamental differences. Taxes and other sources of revenue need not be paid back by the government. On the other hand, public debt has to be repaid by the government. Secondly, there is no promise or commitment by the government in the case of tax. But public loans are collected by the treasury with a promise to repay not only the principal amount but also the interest. The interest may be paid at regular intervals or finally along with the principal. Thirdly, a tax is normally paid by reducing private expenditure and so increased taxation often results in a reduction in consumption but loans are contributed out of savings and hence do not often reduce private consumption. Fourthly, a government tries to meet its normal budgetary requirements through taxes but its excess public expenditure for developmental or welfare schemes is often met out of such loans.

Two aspects of the comparison are important for policy purposes. The first is whether public debt is a source of public revenue. Strictly speaking, it is not a regular source of revenue like taxes. Governments usually how only when their regular sources of revenue are not sufficient. But in a wider sense, since it constitutes an important and major source of financing public expenditure of modern governments, the amount borrowed by the government represents an income for that year. The second aspect is normative i.e. whether a government should rely upon taxes or loans for its expenditure. Generally, it is accepted that if the proposed public expenditure benefits the future generation, it can be financed by loans so that the burden of repayment, will fall on future generations too. If the benefit is for the present generation, it is preferable to rely on taxes. However, it may be difficult to draw a clear-cut distinction in this matter.

13.3 Public Debt and Borrowing

Meaning

An instrument of fiscal policy of recent origin refers to;
Obligations of government to pay certain sums to the holders at some facture date.Public debt is considered when the government floats loans and borrows from the public Government needs to borrow when current revenue falls short of public expenditure. When government, raises loans internally or externally from banks individuals, and financial firms or borrows from international monetary institutions or foreign governments it incurs a debt (liability), known as public debt.

Public debt is an important source of revenue for a modern govt. It is, however, a temporary instrument for augmenting revenue in exchange for an obligation of interest on it, at a specified future date.
The instruments of PD are in the form of various types of govt. bonds or securities - which consist of a written promise to pay, made by the govt. to the lender of capital. The success of PD very much depends upon the confidence the people have in the govt. and its policies.

Theory of Public Debt:

Public Debt was not heard of before the 18th century. Classical economists assumed that individual consumers and business firms make use of the resources more efficiently. Under conditions of full employment, the state can acquire resources through borrowing only at the cost of the private sector where they are more efficiently used. So, they were against public debt.

Public debt was truly and significantly revived by Keynes who rejected the classical view of a self-equilibrating fully employed free economy. He developed an underdeveloped equilibrating economy. Resources in private hands may remain unemployed for a long period if corrective actions are not taken by govt. In periods of business depression and heavy unemployment, the govt. may borrow funds from the public and use them on public works for the creation of productive assets in turn of which employment would be increased and national income would be raised. During World were 2 and in the post-war years, the size of public debt increased enormously.

9.4 Objects of Public Debts

Public debt is incurred due to the following causes.

1. To fill 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 debt.
4. To finance developmental plans.
5. To meet war finance.
6. To meet unprecedented exigencies.

13.5 Forms of Public Debt

Forms of public debt:

1-Internal & external debt: 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 and has to repay them at time of maturity. External public debt permits import of real resources. It enables the country to consume more than it produces.

Distinction:

- An internal debt may be voluntary or compulsory, but an external loan is voluntary normally. Only in case of a colony, it's compulsory.
- An internal loan can be estimated with certainty but an external loan is uncertain - very much conditioned by international politics and policies or leading govt.
- Internal loan is in terms of the domestic currently, while external loans are in terms of foreign currencies.

2**-Ponductive & unproductive debt:** Public debt is productive if the investment yields an income which will help to repay annual interest along with the capital over the long run. Public debt can be productive also if it results in linking backward region (through railways) or increase in productivity of agriculture of a backward area through irrigation. But public debt to finance a war is unproductive or to make a nuclear project - they don't create any asset and thus not self-liquidating, thus cast a net burden on the community. It's a dead weight debt as it is a useless burden on community.

3-Reedemable and non- redeemable debt:
If govt. promises to pay off in future at a specified date which is known as terminable loan. Govt makes some arrangements for payments.

Irredeemable debt:
This may not be redeemed at all but on which govt. promises to pay interest regularly.

4-Perpetual Loan or debt: Society is burdened heavily here as tax payers would have to pay heavily in the and. Redeemable debts are preferred on grounds of sound finance.

5- Funded & un-funded debt: When long term debt is undertaken for creating apparent asset and govt makes arrangements about the mode and time of repayment which duration is at least a year. Unfunded or floating debt is relatively short period debt which are meant to meet current needs which is paid off in a very short period, maybe in a six month period.

6-Compulsory & voluntary debt: Usually public loans are willingly and voluntarily subscribed by citizens, banks & institutions accommodated to their ability, will & convenience. Involuntary or Compulsory: In exceptional circumstances this type of loans are resorted. It resembles a tax.
Lower rate is paid here. This is rare. once in Britain in 17th century such loan was prevalent.

7-Shout term, medium term & long term debt: Short perid ranges from 3 to 9 months maturity period Treasury bills is the example here which is taken resort to cover temporary deficit.
Medium Term - This is in between short term & long term which is used by war finance, education and health.
8-long period debt: repayable generally in ten years or more and which is utilized for development finance and bears a high rate of interest.

13.6 Classical Views on debts

Classical views on public debt have evolved over time, but they generally refer to perspectives rooted in classical economic theory and the ideas of influential economists such as Adam Smith, David Ricardo, and Jean-Baptiste Say. These classical economists had varying opinions on public debt, but they shared some common themes and concerns. Here, I will provide a detailed explanation of the classical views on public debt.

Crowding Out Effect: One of the central concerns of classical economists regarding public debt is the crowding out effect. They argued that when governments borrow money to finance their expenditures, they compete with private borrowers for funds in the financial market. This increased demand for borrowing leads to higher interest rates, which, in turn, reduces private investment. Classical economists believed that high levels of public debt could crowd out private investment and hinder economic growth.

Ricardian Equivalence: David Ricardo, a prominent classical economist, proposed the theory of Ricardian equivalence. According to this theory, individuals anticipate that government borrowing will lead to future tax increases to repay the debt. As a result, they increase their savings to offset the expected tax burden. In this view, individuals see public debt as equivalent to future taxes, and they adjust their behavior accordingly. Ricardian equivalence implies that public debt does not have a significant impact on aggregate demand since any increase in government spending funded by borrowing is offset by increased private savings.

Economic Stability and Intergenerational Equity: Classical economists emphasized the importance of economic stability and intergenerational equity. They argued that excessive public debt could create economic instability and burden future generations with the responsibility of repaying the debt. They were concerned that high levels of public debt would lead to higher taxes in the future, distorting incentives, and reducing economic efficiency. Furthermore, they believed that the burden of repaying the debt would fall on future generations who did not directly benefit from the borrowing.

Productive vs. Unproductive Expenditure: Classical economists made a distinction between productive and unproductive expenditure. They generally favored public debt incurred for productive purposes such as infrastructure development or investments that enhance long-term economic growth. In their view, such investments could generate future returns that would help repay the debt. However, they were critical of public debt used for unproductive expenditures such as excessive military spending or wasteful government programs, as these did not contribute to economic growth and were seen as a burden on future generations.

Free Market and Limited Government: Classical economists advocated for a free market system and limited government intervention. They believed that excessive public debt could lead to an expansion of government and a reduction in individual liberty. They argued that governments should operate within their means, prioritize fiscal responsibility, and limit their involvement in the economy to promote economic growth and prosperity.

It's important to note that these classical views on public debt have been subject to critique and modification over time, and modern economic theories and perspectives offer alternative interpretations and policy recommendations. Nonetheless, understanding the classical views provides a foundation for analyzing the historical context and initial economic thinking surrounding public debt.

13.7 Compensatory aspects of debt Policy

The compensatory aspect of debt policy refers to the strategic use of debt financing by organizations to balance and offset various financial factors and risks. It involves employing debt as a tool to manage and compensate for other elements within a company's financial structure. This approach aims to optimize the organization's overall cost of capital, capital structure, and financial risk profile.

To understand the compensatory aspect of debt policy, let's examine the key components and considerations involved:

Cost of Capital Optimization: Debt policy allows companies to optimize their cost of capital by striking a balance between debt and equity financing. Debt is typically cheaper than equity due to the tax-deductible interest payments, making it an attractive option to lower the overall cost of capital. By utilizing an optimal mix of debt and equity, organizations can minimize their weighted average cost of capital (WACC) and maximize shareholder value.

Capital Structure Management: The compensatory aspect of debt policy plays a crucial role in managing the capital structure of a company. Debt allows organizations to leverage their operations and assets by raising funds externally. By incorporating an appropriate amount of debt into the capital structure, companies can achieve an optimal balance between risk and return. This balance depends on factors such as industry dynamics, business risk, cash flow stability, and financial flexibility.

Financial Risk Mitigation: Debt policy helps organizations mitigate specific financial risks through the compensatory nature of debt instruments. For example, by issuing fixed-rate debt, a company can hedge against the risk of rising interest rates, providing stability to its interest expense. Additionally, organizations may employ debt to match the maturity of their assets, reducing refinancing risks and ensuring a steady cash flow stream to cover debt obligations.

Tax Shield Benefits: Debt policy takes advantage of the tax shield benefits associated with interest payments. The interest paid on debt is typically tax-deductible, resulting in a reduction in the company's taxable income. This tax shield lowers the overall tax liability of the organization and enhances its after-tax profitability. By utilizing debt efficiently, companies can enhance their cash flows and achieve a more tax-efficient capital structure.

Financial Flexibility and Liquidity: The compensatory aspect of debt policy allows organizations to maintain financial flexibility and liquidity. While debt increases the financial leverage of a company, it also preserves cash and other liquid assets. This enables organizations to seize growth opportunities, invest in research and development, undertake strategic acquisitions, or weather economic downturns without immediately diluting equity or depleting cash reserves.

Shareholder Value Creation: Effective debt policy contributes to the creation of shareholder value. By judiciously employing debt, companies can optimize their capital structure, reduce the cost of capital, and enhance profitability. This, in turn, can lead to higher returns on equity and increased shareholder wealth. However, excessive reliance on debt or inadequate management of debt levels can jeopardize the financial health of a company and erode shareholder value.

13.8 Conclusion

It is essential to note that the compensatory aspect of debt policy requires careful analysis and consideration of various factors, including the company's financial goals, risk tolerance, industry dynamics, and economic conditions. Moreover, organizations must prudently manage their debt levels, maintain sufficient liquidity, and monitor their ability to meet debt obligations to ensure the overall success and sustainability of their debt policy.

13.9 Key Words

Internal Debt
External Debt
Productive Debt
Unproductive Debt
Redeemable Debt
Non-Redeemable Debt
Compensatory aspects of debt

12.8 Model questions

1. Explain the concepts of public debt with its features.
2. Explain the different forms of public debts.
3. Analyse compensatory aspects of debt policy
4. Write short notes on :
    - Classical view on public debts
    - Objects of public debts

13.9 References

1. Public Finance by R K Lekhi
2. Public Finance and fiscal policy by R K Chowdhary
3. Public Finance by R A Musgrave & Peggy B Musgrave

Unit 14- Burden of Public Debt; Sources of Public Debt; Debt Through Created Money

Structure:

14.0 Learning Objectives

After going through this unit the learners will be able to understand;

- The Meaning of Public Debt
- The classification of Public Debt
- The Objective of Public Debt
- The Sources of Public Debt
- The limits of Public Debt
- Debt of Created money
- Burden of Public Debt

14.1 Introduction

Generally public debt refers to loans raised by a government within the country or outside the country. Just like individuals the governments also borrow when their expenditure tends to exceed their revenue. Philip E Taylor opined that debt is the form of promises by the Treasury to pay to the holders of these promises a principal sum and in most instances interest on the principal. Borrowing is resorted to in order to provide fends re financing a current deficit. This definition very clearly explains the three features of public debt.

1. Public debt arises in the form of borrowings by the treasury or the state exchequer.

2. The government borrows a certain amount now but promises to pay in future not only the principal amount but the interest also.

3. The government borrows when there is a budget deficit, that is, public expenditure is more than revenue.

Carl S. Shoup defines public debit as the receipt from the sale of financial instruments by the government to individuals or firms in the private sector, to induce the private sector to release manpower and real resources and to finance the purchase of these resources or to make welfare payments or subsidies. This definition makes the concept of public debt still clear to include the following additional features:

1. When the government borrows, it results in a financial instrument like bonds (if it is a long term debt) or treasury bills (if the borrowing is for a short period) .
2. The government may borrow from various sources like individuals. Firms, banks, or even financial institutions, both internal and external.
3. Borrowing is one way of getting the amount from private sector to release real resources and manpower which they might have used for other purposes.
4. Borrowings are used by the government to purchase such resources to make welfare payments or subsidies. This definition has a normative implication because it justifies

public debt for purchase of real resources by the government for development or to make with repayments.

Meaning:

Govt. needs to borrow, when current revenue falls short of public expenditure. when govt, raises loans internally or externally from banks individuals and financial firms or borrows from international monetary institutions or from foreign government, it incurs a debt (liability) , known as public debt. Public debt is an important some of source of revenue to a modern govt. It is, however, a temporary instrument for augmenting sovereign in exchange of an obligation of interest on it, at a specified future date.

The instruments of PD are in form of various types of govt. bonds or securities - which consist of written promise to pay, made by the govt. to the lender of capital. The success of PD very much depends upon the confidence the people have in the govt. and its policies.

Theory of Public Debt:

PD was not heard of prior to the 18th century. The classical economists assumed that individual consumers and business firms make use of the resources more efficiently. Under conditions of full employment the state can acquire resources through browsing only at the cost of private sector where they are more efficiently used. So, they were against public debt.

Public debt truly and significantly revived by Keynes who rejected the classical view of a self-equilibrating full employed free economy. He developed an underdeveloped equilibrating economy. Resources in private hands may remain unemployed for long period it corrective actions are not taken by govt. In periods of business depression and heavy employment, the govt. may borrow funds from public and use them on public works for creation of productive assets in turn of which employment would be increased and national income would be raised. During World were 2 and in the post war years the size of public debt increased enormously.

14.1 Comparison of Public Debt with Private Debt

There are similarities and dissimilarities between private debt and public debt.

Similarities:

1. Both individuals and the government borrow to acquire funds to get certain resources.
2. Both private debt and public debt result in diversion of resources. In the case of private debt, there is a diversion of resources from one use to another. Public debt diverts resources from private use to public usc.
3. Normally interest must be paid on both private and public debt by way of cost of borrowing.

Differences:

There are however many differences between private and public debt.

1. The sources of borrowing are very vast for the government. Individuals cannot borrow from external sources.
2. The funds borrowed by the government are spent for the benefit of the whole community. Individuals borrow for their own use.
3. Governments can compel people to lend. Individuals cannot force others in lending. This power of coercion helps the government to raise large resources through borrowing.
4. The government pays low rate of interest on its loans. This is because the state has credit worthiness and authority to support its debt. Individuals can borrow only at a high rate of interest.

5. Public debt is often used for productive purposes. Individuals may borrow to satisfy certain consumption requirements also. The high rate of interest on private loans dissuades individuals from borrowing unnecessarily

6. The state repays the public debt out of its income from public sector enterprises also besides other sources of revenue. However individuals have to repay out of their own income.

7. In private debt the lender incurs a sacrifice of funds. He does not get any other benefit except the interest which is paid. But in public debt, the money will be spent for the community as a whole. So the lender may also get benefit from government expenditure. Hence, when an individual lends to the government, he partially lends to himself.

8. The government is a permanent entity. So it can borrow for a very long term. For example some governments borrow twenty or thirty year loans. Individuals cannot do so. They can borrow only for a short period.

9. The main motive behind public debt is public welfare. The government normally borrows only for developmental schemes. But the motive behind private debt is personal profit. Individuals borrow to satisfy certain consumption needs. Firms borrow to make profits.

10. Public debt makes an impact on the production and distribution of income and wealth in the country as the amount borrowed is large. Private loans do not have such impact.

11. Government can use borrowings as a matter of policy even if it has no need for funds. Thus a government borrows during inflation to reduce purchasing power in the hands of the people and thus reduces prices. During depression it helps the government to undertake certain necessary expenditure. Thus public debt becomes a tool of compensatory fiscal policy to bring about economic stability. An individual has no such policy for borrowing. Usually an individual does not borrow if he has no need.

12. The government can refuse to repay the loan from the public. This is known as repudiation. Individuals cannot refuse repayment of loans. If he does, he can be punished.

This discussion on the difference between public debt and private debt makes it clear that the public debt should be carefully planned due to its impact on the community.

Causes for Public Debt:

Government borrowing or public debt has become an important source of finding resources for meeting public expenditure. In the olden days the government functions were minimal and they were expected to follow an ideal system of balanced budget. But modern governments have increased their activities both intensively and extensively. This has necessitated the need to find an additional source of finance. Hence, modern governments have come to rely upon public borrowings to meet their financial requirements

14.2 Importance or need of Public Debt

The growing importance of public debt may be gauged from the following objectives or causes.

1. To cover budget deficit. Public debt is incurred to cover the gap between public revenue and public expenditure. When unexpected contingencies occur such as floods, famines etc. It may take time to the government to raise taxation to meet such expenditure. In such circumstances the government borrows from internal and external sources.
2. To fight depression. The best argument justifying public debt is its ability to budget to fight a depression. The prices are low during depression and entrepreneurs have no incentive to produce due to lack of demand. This results in reduction in production and increasing unemployment which again means low incomes and low demand. Depression can be fought only if this vicious circle is broken. Keynes pointed out that private investment will not come forward due to lack of demand. So government

should undertake public expenditure. It cannot raise taxation to meet this public investment as it will have adverse effect on incentive to work and save during depression. Therefore public expenditure for carrying out public works programs to increase employment should be implemented through public borrowing, preferably from banks. This ant cyclical role of public debt won the test of practical application during the Great Depression of 1930s in U.S.A. and since then public debt is considered an important tool of compensatory fiscal policy.

3. To check inflation. Public borrowing is resorted to in times of inflation. Prices rise during inflation. If it is due to demand-pull inflation, it can be controlled by reducing purchasing power in the hands of the people. Public borrowing during inflation helps to reduce purchasing power in the economy.

4. To finance economic development. Under-developed countries are interested in achieving economic development. But their low income and low taxable capacity do not provide scope for sufficient tax resources for big development plans. Public loans from internal and external sources are the best way to finance economic development. In fact, public borrowing really helps in capital formation in under-developed countries.

5. To meet unexpected emergencies. Unexpected emergencies like war. famine, floods, earthquakes mean unexpected huge expenditure. Public loans alone help to secure required funds at the right time to meet such expenditures.

6. As an alternate source when taxable capacity is reached. When huge sources of revenue are required to meet its large expenditure, govern ments usually increase taxation. People often resent such tax hikes. Imposition of higher taxes will be difficult

when maximum taxable capacity is reached. In such cases public debt is the only alternate source of raising finance.

7. To finance wars. Governments have the responsibility of providing for national security and defense. Modern governments have to be equipped to meet any attack from foreign countries. Modern warfare techniques require huge expenditure. If any emergency occurs due to war, governments are forced to borrow to raise quick financial resources.

8. To finance public enterprise. Public sector enterprises have an important role to play in the economic development of developing countries. These are generally productive enterprises in key areas of production like steel, cement etc., Modern governments have resorted to public debt to run these public sector enterprises.

9. To carry out welfare programs. Modern governments are welfare states. They have the responsibility of providing better education and health to the people. Developing countries like India have planned to provide free school education. Such schemes are aimed at improving social welfare of the present as well as future citizens. Governments wedded to such welfare programs have to meet out such large expenditure by borrowing from internal and external sources.

10. To create infrastructure. Creation of infrastructure refers to the development of essential services like railways, communication, hydroelectric projects etc. Private investment will never come forward to carry out such schemes. It is the duty of the government to create such social over- head capital in the economy. Public debt is justified in such cases.

11. For creation of productive assets. There are several items of public expenditure which result in the creation of permanent income yielding assets, Irrigation dams, railways are examples of this type. In such cases these assets can be created out of borrowed funds. The income from such assets or fees charged from beneficiaries can be used to repay the loan. The example of this in recent years in India is the implementation of the Konkan railway line on the west coast by public borrowing in the three states which will benefit from this project. But for this loan program, the project would have been given up or delayed.
12. For creation of essential non-income yielding assets. Several non-income yielding assets like parks, public libraries, hospitals are essential for public welfare. No income can be expected from such assets. Hence such expenditure should be financed primarily through taxation but if tax sources are not sufficient, public borrowing becomes necessary to create such non-income yielding assets.

13. Thus there is no simple answer to the question why governments borrow. Intensive and extensive increase in public expenditure of modern welfare governments cannot be met with taxation alone. Public borrowing has become an integral part of economic development of a country. The aforesaid varied circumstances under which public borrowing is justified, reveals the importance of public debt as a tool of successful fiscal operations.

14.3 Sources of Public Debt

Public borrowings take the form of public debt, in general, though there are few other forms. Bonds are the credit papers which contain government promise relating to interest, maturity period and other conditions of borrowings. These bonds are purchased and sold in the money market.

The bond holders are the lenders of funds to the government. There are various sources of borrowing, i.e. the individuals or institutions purchasing government bonds or lending in other forms. The following are the most important sources of public borrowing:

(i) Private individuals.
(ii) Financial institutions.
(iii) Commercial banks.
(iv) Central bank.
(v) Small saving.
(vi) Unfunded debt.
(vii) Foreign governments.
(viii) Foreign individuals.
(ix) Foreign banks and other non-financial institutions.
(x) International financial institutions.

Private individuals purchase government bonds mainly because of security and tax concessions attached to them. When they purchase bonds, there is diversion of funds to government use which does not normally reduce private consumption or investment. In all probability, the bonds are purchased out of funds which are either lying idle or would be used to purchase other securities.

The second important sources of public borrowings are the non-banking financial institutions, like Life Insurance Corporation or Unit Trust of India which are bulk purchasers of government bonds. Both individuals and non-banking institutions prefer government bonds mainly because of security they provide and because they are highly marketable and negotiable. Becsuse of the latter quality, they are highly liquid and in times of financial exigencies they can be exchanged for cash.

The third sources of public borrowings are the commercial banks.

There is one important difference with both the private individuals and non- banking financial institutions is that while the latter purchase bonds from their own funds, the commercial banks can purchase them through credit creation, i.e., the creation of additional purchasing power. The additional purchasing power is created from the excess of cash reserves which can be used to purchase bonds of the value much higher than the amount of excess cash reserve. Thus, the purchase of bonds does not reduce their loans and advances. However, so far as the purchase of bonds by creating money is concerned, they will have enough inflationary potential.

The most expansionary source of public borrowings is the central banking system. The central bank purchases government bonds through the creation of credit. When it purchases bonds, what it does is that it credits the amount lent (i.e., the value of the bonds) with a government account. When the government spends money from its fund with the central bank, the receivers of cheques deposit them in their commercial banks. To the commercial banks, these cheques are as good as cash reserves and they create, in their turn, amultiple of additional purchasing power. Thus, when government bonds are purchased by the central bank, additional purchasing power in the economy is created by both the central bank and the commercial banks. Hence, the economy receives most expansionary effects when government bonds are purchased by the central bank. Small savings and unfunded debt are the two other internal sources of public borrowing. The government also has external sources of borrowing. These funds are generally used to import various materials and man-power required to develop the country agriculturally and industrially. The bonds are floated for financing construction projects. These bonds may be purchased by private individuals or commercial institutions or government of the foreign countries. Apart from these sources, there are a number of international institutions like International Monetary Fund, International Bank for Reconstruction and Development or World Bank, Industrial Finance Corporation, etc. which offer loans for short term and long term development purposes. The developing countries facing a temporary balance of payments difficulty get short-term loans, while long term loans are received for long term development projects. The magnitude of external borrowings of the developing countries has increasingly become vast in recent years.

Debt through Created Money

Managing public debt through the creation of money, also known as monetizing debt, is a controversial policy with potential consequences. Here is a critical analysis of how this approach can be used and its implications:

Monetizing Debt:

Monetizing debt involves a central bank directly financing government spending by creating new money. This can be done by purchasing government bonds or Treasury bills directly from the government, effectively injecting new money into the economy.

Advantages:

a. **Short-term Financing:** Monetizing debt can provide immediate funds for government spending, especially during economic crises or emergencies when traditional borrowing may be difficult or expensive.

b. **Lower Interest Costs:** By creating money instead of borrowing from the market, governments can avoid paying interest on the newly issued debt, potentially reducing overall interest costs.

Consequences:

a. **Inflationary Pressure:** When new money is injected into the economy without a corresponding increase in goods and services, it can lead to inflationary pressures. If the increase in the money supply exceeds the growth in the real economy, prices may rise, eroding the purchasing power of individuals and causing economic instability.

b. **Loss of Central Bank Independence:** Monetizing debt blurs the line between fiscal and monetary policy, potentially undermining the independence of the central bank.

This can lead to political interference, as the government may exert pressure on the central bank to finance its spending, which can harm long-term economic stability.

c. **Currency Depreciation:** Excessive creation of money can lead to a devaluation of the currency in international markets. This can have negative consequences for trade, foreign investment, and the overall stability of the economy.
d. **Reduced Confidence and Credibility:** If investors perceive the monetization of debt as a sign of fiscal irresponsibility, they may lose confidence in the government's ability to manage its finances. This can lead to higher borrowing costs, capital flight, and a decline in economic growth prospects.

Long-term Sustainability Concerns:

Monetizing debt does not address the underlying structural issues that contribute to public debt accumulation, such as excessive government spending or lack of revenue sources. It can create a false sense of security, postponing necessary fiscal reforms and exacerbating long-term sustainability challenges.

Alternative Approaches:

Rather than relying on monetizing debt, governments can pursue other strategies to manage public debt, such as implementing prudent fiscal policies, improving tax collection, reducing spending, and promoting economic growth to generate higher revenues.

Conclusion:

While monetizing debt can provide short-term relief by financing government spending, it carries significant risks and consequences. The potential inflationary pressures, loss of central bank independence, currency depreciation, and damage to confidence and credibility should be carefully considered. Sustainable management of public debt requires a comprehensive approach that addresses underlying fiscal imbalances and promotes responsible fiscal policies.

14.4 Classification of Public Debt

1. Public debt can be classified in different ways according to various factors like sources of borrowing, purposes of loan, the time duration of loan, provision of repayment, nature of contribution, marketability etc.

2. 1. Sources of borrowing (internal and external debt). There are two sources of public debt viz., internal and external. According to Dalton internal debt consists of loans by persons or institutions within the area controlled by the public authority which raises the loan. External loan is subscribed by persons or institutions outside the area.

3. There are four major sources of internal debt viz. from individuals, non-banking financial institutions, commercial banks and from the central bank. In the case of internal debt, there is only a transfer of funds from the people to the government. When interest and loans are repaid by the government the funds get transferred from the government to the public. But the funds remain within the country. However, in the case of external debt, interest payments constitute net payments going outside the country. Thus in the case of internal debt, productive capacity is not affected much as the funds remain within the country. But in the case of external debt productive capacity is affected to the extent interest payments are made. Therefore, external loans should be obtained only for productive enterprises, whose income can be used to repay the loan later.
4. Purpose of the loan (Productive and unproductive debt). According to the purpose of borrowing, public debt is classified into productive and unproductive debts. Productive loans are used for projects which yield an income to the government as in the case of construction of steel plants, railways, power schemes, cement plants etc. Findlay Shirras points out that productive loan have two features. First, such debts are fully covered assets. Second, the assets yield an income to the government which helps to repay the interest as well as the principal amount. Productive loans therefore are not a burden on the government as they increase the productive capacity of the country.

Unproductive debts are spent on projects which do not yield an income. Findlay Shirras calls them as dead weight debts as they do not create any assets. They do not add to productive capacity. Public debts used for financing war and famine relief belong to this group.

5. Time duration of loan (Short-, medium- and long-term loans). According to time duration of the loan, public debt can be classified into short term, medium term and long-term loans. Short term debt is usually incurred for a period varying from three months to one year. Usually, Governments get such loans from the central banks by using treasury bills. These loans are also called 'ways and means advances'. Such loans are obtained to overcome temporary deficits in payment to be made by the government in the course of one year to pay salaries etc.
6. Medium term loans are those which are obtained for more than one year but less than ten years. Usually the governments borrow only term loans for more than ten years. The maturity period is long so that the rate of interest tends to be higher on long term loans than short term loans. Long term loans are incurred to finance development schemes.
7. Provision for repayment (Funded and unfunded debt). According to provision made for repayment, public debt is classified into funded and unfunded debt. A funded debt is a long term debt, usually obtained for the creation of a permanent asset. Here the government makes arrangements about the mode and time of repayment. Often a provision is made to create a and to repay the loan. Unfunded debt is a relatively short-term debt which is obtained to meet current needs. These debts are paid off within a year. Treasury bills are examples of unfunded debt. The rate of interest on unfunded debt is lower.
8. Promise to repay (Redeemable or irredeemable). When the government promises to repay a loan at some future date it is called redeemable debt. Here the government has to make arrangements for repayment of the principal as well as the regular payment of interest. New taxes may have to be levied to make these payments. Irredeemable debt is one where there is no promise to repay the principal amount. The government pays only the interest regularly. It may be difficult to raise irredeemable loans in

democratic countries where people may not contribute if there is no promise to repay the principal at some future date.

9. Legal enforcement. (Voluntary and compulsory debt). Voluntary debt is one where people are requested or invited to contribute to government's loan programme. The public borrowing by democratic governments results in voluntary public debt. No force or compulsion is used. By keeping a good rate of interest and proper incentives, such voluntary debt programs can be made very attractive to people. In India most of the loan floated by the government is oversubscribed on voluntary basis. Though the rate of interest is lower than on other securities, the financial institutions and banks find them to be good liquid assets.
10. Compulsory debt implies force- government uses pressure or force for getting loans from the individuals and institutions. Such compulsory debt is raised during an emergency such as war. People refuse to contribute to government loans if they lose faith in the stability of the government. In such cases the government has to raise loans compulsorily to meet its requirements. Compulsory loans are not common in modern days.
11. Negotiability of government bonds (Marketable and non-marketable loans). Public borrowing results in a financial instrument called government bond. If these securities are negotiable or tradable in the open market, it is marketable loan. If the bonds are not tradable in the stock market it is non-negotiable loan.
12. Gross and Net debt. Gross debt refers to the total amount of debt outstanding at time. Net debt refers to the gross debt minus sinking funds or other assets earmarked for repayment of debt. Mrs. Hicks has given a different type of classification in terms of dead weight debt, passive debt and active debt. Dead weight debt results in expenditures which do not increase the productive powers of the country. War debt is a classic example of dead weight debt. Passive debt refers to debt incurred for public expenditure which does not yield money income and also does not improve productive powers. Usually, these debts are incurred for the creation of utilities such as parks, public buildings which give only enjoyment (recreational) benefit to the people. Active debts are incurred for expenditure which results in the creation of assets which

not only improve the productive power of the community but also increase incomes' proper classification of public debt helps to have a proper understanding of the benefits, effects and burden of public debt.

14.6 Benefits of Public Debt

Public debt, if properly planned, can be a very important and useful tool in the fiscal armory of the government. Firstly, are modern governments can increase the pace of development by public borrowing to finance big developmental projects. India's massive industrial development has been possible only due to internal and external borrowing. Secondly, public borrowing enables the government to raise resources quickly without waiting for introducing taxes whose effects may not be definite. Thirdly ever since Keynesian Economics proved successful to fight depression, it is considered an important tool to control inflation and to fight depression, This counter cyclical role of public debt has now brought a new thinking that public debt is not always bad. Fourthly, many countries have used public borrowing to implement projects to realize full employment. Further, the ever increasing public debt has resulted in a large volume of government bonds which are considered good liquid assets by firms and financial institutions. Finally a widely held public debt is a sign of interest shown by the community in public administration.

Ultimately what makes public debt good or bad is the ability of the government to use it only when necessary and also put it for proper uses. A careless and indiscriminate policy of borrowing may prove very harmful.

Dangers of Public Debt:

Early economists were not in favor of public debt. Adam Smith warned that public debt might encourage extravagance on the part of the government. Easy availability of borrowed funds can make the governments fritter it away on unnecessary wars. Thus, it has a tendency to create generally disadvantageous economic conditions for the nation which employed it. Findlay Shirras points out that government must remember that borrowing is not a short cut to prosperity and he recommended its usage reasonably for only productive expenditure. On the whole following points of caution may be noted in public debt policy.

1. **Extravagance**- Governments should not be tempted by easily available funds through borrowing to carry on extravagant expenditure like celebrations.

2. **Unproductive expenditure-** Borrowed funds might be used by the government to finance wars or spend on other unproductive schemes. The ultimate burden of such a wasteful expenditure falls on the community.

3. **Harmful effects on production and distribution-** In the absence of public debt the funds would have been used by individuals and firms in productive way. The rate of interest on government loans is always lower than the market rate. To that extent it has harmful effects on production and distribution of income.

4. **Checks economic development-** The government tries to repay the loans by taxing the people. This will have adverse effects on desire and willingness to work and save which again affects future economic development.

5. **Threat to political freedom**-When a country borrows too much from one single external source, there is always a danger that it has to play to the strings of that country. This may prove to be a threat to its political freedom.

6. **Debt trap**-One danger that must be avoided by a country in its public debt program is that of falling into a debt trap. Debt trap refers to a situation where a country's debts become so large that its new borrowings are used only to repay the interest on old loans. Such a debt trap makes it difficult for a country to come out and it reflects the beginning of bankruptcy.

These dangers only point out the pitfalls to be avoided by the government in its public debt policy. Governments should plan to borrow for essential Purposes, plan for proper repayment in stages and thus establish its credibility.

14.5 Burden of Public Debt

The burden of public debt refers to the sacrifice imposed on the community and the effects of a rise in taxation at the time of repayment of the principal amount and the regular interest payments. The concepts of financial burden and real burden are important in this respect. When the government increases the taxes to repay the interest on public debt, there is a loss of income to the taxpayers. This is the financial burden or the primary burden. David M.C

Wright says, the financial burden of the national debt is to be measured by the effects of the interest charges and taxes levied to meet them. The relation which the taxes for interest bear to the national money income is the question of primary importance. Similarly, the higher level of taxes to repay public debt tends to have an adverse effect on the capacity and willingness to work and the capacity and willingness to save. This is the real burden or secondary burden of public debt. Dalton considers the problem of burden of public debt from the point of direct and indirect burden and also in terms of money and real burden.

Thus four concepts of burden of public debt must be analyzed, viz.,

(1) Direct money burden,

(2) Direct real burden,

(3) Indirect money burden and

(4) Indirect real burden. These four types of burdens must be studied with reference to internal and external debts,

<u>Burden of internal debt :</u>

(a) **Direct money burden:** Strictly speaking, internal debt should not leave any burden because there is only a transfer of purchasing power from one section to another within the economy. However some important aspects of burden can be considered. 1. Direct money burden. Direct money burden equals the amount of goods and services sacrificed by the people due to rise in taxes to repay the debt. If the taxpayers and the bond holders are the same, there is no direct money burden. Even if taxpayers and bond holders are different, there is only a change in the distribution of income from the taxpayers to the bond holders. Thus on the whole, as far as internal debt is concerned there is only a transfer of purchasing power from one section to another. Money does not go out of the economy. Hence there is no direct money burden of an internal debt.

(b) **Indirect money burden:** This refers to the indirect effect of public debt on money incomes. When the government spends its loans on development projects, it increases the government's demand for goods which results in a rise in prices. This causes a reduction in purchasing power. This in one aspect of indirect money burden. Secondly, when the government levies taxation to repay the debt, it affects their desire to work, save and invest. Reduction in investment reduces national income. This is the second aspect of indirect money burden.

(c) **Direct real burden-**While money burden refers to transfers of purchasing power from taxpayers to the creditors namely the bond holders, the real burden of taxation refers to the distribution of taxes and bonds among the public. For example, the government introduces taxes to repay the public debt. Usually, bond holders are richer sections while taxpayers poorer and middle-income groups also. Taxation results in transfer purchasing power from poorer to richer sections, thus increasing the sacrifice of the poorer people. Wealth gets transferred from the active sections to the passive sections of the society. This is the direct real burden it is difficult to distinguish between the sacrifice due to taxation falling on different groups. Therefore, the direct real burden can be explained in another way. If the proportion of taxation paid by the rich towards the cost of debt service is smaller than the proportion of securities held by them there is a direct real burden. In the same manner, if the proportion of taxation paid by the poor and middle-income groups to meet the cost of debt service is greater than the proportion of public securities held by them, there is a direct real burden from public debt. Indirect real burden in both cases is responsible for increasing inequalities of income. On the other hand, if the government bonds and securities are held by the poorer and middle-income groups and taxes to repay public debt is paid by the richer sections, there is no direct real burden. Therefore, there is a direct real benefit.

Thus whether public debt results in direct real burden or benefit depends upon the distribution of taxation and ownership of government bonds among different sections of society. Dalton points out that in modern days, with large existing inequality of incomes, the bond holders are the richer people. Hence, when general taxation is raised to repay public debt, it results in transfer of purchasing power from the poorer to the richer sections. Thus, public debt programs of modern governments result in direct real burden.

(d) **Indirect real burden-**Indirect real burden refers to the indirect effect on the desire to work and save. When government imposes additional taxes to repay public debt, if it levies indirect taxes on goods, it affects the poor people more. It adversely affects their willingness to work and save, besides increasing the disparities in income.

To sum up, in the case of internal debt, there is no direct money burden since there is only a transfer of purchasing power within the economy. Indirect money burden will occur if public debt has adverse effect on desire to work, save and ability to work and save. Direct real burden depends on whether the sacrifice incurred due to taxation results in wealth getting transferred from the poor to the rich. Indirect real burden again depends upon whether taxes levied to repay the debt is harmful to the poorer or richer groups and whether there is any loss of economic welfare. It is often commented that a nation cannot be made bankrupt by internally held public debt. The burden of internal public debt depends upon the purpose for which the debt is incurred. A loan used to finance a productive enterprise can be paid out of the profits from such enterprise. So there should be no money burden. On the other hand, in the case of internal unproductive debt, it is a dead weight debt. It has to be repaid at some future date out of taxation. Hence there is bound to be direct as well as indirect real burden, since it has adverse effects on production and distribution of wealth.

This analysis makes it clear that an internally held public debt is a burden even when taxes are paid to service the debt in the same ratio as the bonds are held. There are always the difficulties and frictions of levying and collecting taxes and receiving interest. An internal debt is a burden because a progressive tax system to repay the debt restricts investment and lowers national income. Hence, it is theoretically vague and practically unrealistic to say that internal debt does not impose any burden on a country.

- **Burden of external debt.** An analysis of burden of external debt should consider the fact that funds flow into the country when the loan is obtained but repayment of principal and interest take the funds out of the country.

- **Direct money burden.** The debtor country has to repay the principal and interest for the loan in foreign exchange. Foreign exchange can be earned through exports. In fact the direct money burden of an external debt is more than internal debt because in the case of internal debt there is only a transfer of purchasing power among different sections of the same country. In the case of external debt. foreign exchange to repay the external debt goes to the creditor country.
- **Indirect money burden-**The debtor country pays interest through foreign exchange. It must be earned through exports. Such exports reduce the availability of goods and services in the domestic economy. As a result prices of these goods raise reducing people purchasing power. This is the indirect money burden.
- **Direct real burden-**Direct real burden is measured by the loss of economic welfare which these payments involve to members of debtor community. The debtor country imposes new taxes on the people to pay off the external debt. If the relative burden of taxation is mostly on the rich, then the real burden will be less. If the relative burden is mostly upon the poor. the real burden will be more. Further, repayment of loans might make the foreigners use the foreign exchange to buy goods and services from the debtor country. The people in the debtor country are deprived of goods and services to that extent which is the direct real burden. If this loss of goods and services is more for rich people than the poorer sections, real burden also will be less.
- **Indirect real burden-**Indirect real burden depends upon whether the peoples' ability and willingness to work and save is affected by taxation imposed to repay the external debt. If it adversely affects the willingness and ability to work and save, it has unfavorable effects on production. Due to heavy debt repayment government has to curtail the essential public expenditure, thus reducing welfare. This is again the indirect real burden.

  If it adversely affects the willingness and ability to work and save, it has unfavorable effects on production. Due to heavy debt repayment government has to curtail its essential public expend reducing welfare. This is again the indirect real burden.

Ultimately the real nature of burden of external debt depends upon several factors. For instance the purpose for which the loan is taken is a crucial factor. If the external debt is obtained for unproductive purpose like war it's not help to increase production. It becomes a dead weight debt. If the debt is obtained for productive purposes like creation of assets, setting up industrial ventures etc., it may get imported machinery and technical know-how which improves its productive capacity. The real burden is lesser.

Burden of external debt should take into consideration prices also. If the domestic prices fall, more goods have to be exported for given value of foreign exchange, so it amounts to rise in direct real burden. There is a general opinion that external debt results in the impoverish of the debtor country because the repayment of debt and interest payment in foreign currencies result in exhaustion of foreign exchange resources, deprivation of goods and services, a reduction in national income and a loss of general welfare. This argument is not sound. When foreign loans are obtained they come in the form of required raw materials, machine etc. When the country's productive capacity improves as a result, these goods are exported to repay the debt. Thus goods are paid for goods and need not be impoverishment on account of external debt if it is used strictly for productive purposes and that too in the production of exportable. The quick development of South Asian Countries like Korea, Thailand was only because of exportable production generated by foreign debt. India's failure to do this has been responsible for the near debt trap situation in 1991. India has borrowed from external sources mostly for financing social and economic overheads. It is true that the general benefits outweigh the burden of repayment but when the size of external debt is large it should be taken to create exportable capacity so that repayment of external debt does not involve any burden.

14.7 Key Words

Financial Instrument

Rate of Interest

Repudiation

Non-Banking Financial Institution

Commercial bank

Central bank

Productive debt

Redeemable debt

14.8 Model questions

1. What is public Debt?
2. Distinguish between public debt and private debt
3. Briefly explain the sources of public debt
4. Give the Classification of Public Debt
5. What are the main objectives and importance of public debt
6. Write short notes on:
    - Limit of Public debt
    - Redeemable debt
    - Funded debt
    - Non-Banking financial Institution

14.9 References

1. Principle of Public Finance by H Dalton
2. The Economics of Public Finance by P E Taylor
3. Public Fianance by J M Buchanm
4. An introduction to Public Finance by H E Newman
5. Public Finance by R K Lekhi
6. Public Finance and fiscal policy by R K Chowdhary
7. Public Finance by R A Musgrave & Peggy B Musgrave

Unit 15- Public Borrowings and price level; crowding out of private investment and activity: principles of debt management and repayment

Structure:

15.0 Learning Objectives

After going through this unit the learners will be able to understand;

- The Burden of Public debt
- Internal Burden of Public Debt
- External Burden of public debt
- Money Burden of Public debt
- Real Burden Of Public Debt
- Redemption of Public Debt
- Principles of Debt Management
- Management of Public Debt

15.1 Introduction

Public debt refers to the total amount of money that a government owes to external creditors or its citizens through the issuance of bonds, treasury bills, or other forms of government securities. It is a result of a government's fiscal deficit, which occurs when its expenditures exceed its revenue.

15.1 Public Debt and Price Level

The price level, on the other hand, refers to the average level of prices for goods and services in an economy. It is commonly measured using an index, such as the Consumer Price Index (CPI) or the Producer Price Index (PPI), which tracks the changes in prices over time.

The relationship between public debt and the price level is complex and can be influenced by several factors. Here are some key points to consider when examining their connection:

1.Inflationary Pressure: One potential impact of public debt on the price level is through inflation. When a government has a large debt burden, it may resort to inflationary measures to reduce the real value of the debt. By increasing the money supply, the government can effectively decrease the purchasing power of each unit of currency, leading to a general increase in prices. However, it's important to note that not all public debt necessarily leads to inflation, as other factors such as fiscal policy, monetary policy, and economic conditions play significant roles.

2.Interest Rates: Public debt can also affect interest rates, which, in turn, can influence the price level. When a government accumulates a substantial debt, it may need to borrow more money to meet its obligations. Increased borrowing can raise the demand for loanable funds, driving up interest rates. Higher interest rates can lead to increased costs for businesses and consumers, potentially impacting prices.

3.Confidence and Expectations: Public debt levels can influence market confidence and expectations, which can have indirect effects on the price level. If investors and the public perceive a government's debt as unsustainable or a risk to the economy, it can lead to reduced confidence in the country's financial stability. In such cases, investors may demand higher interest rates to compensate for the perceived risk. This could tighten credit conditions, limit investment, and potentially impact economic growth and price levels.

4.Crowding Out: Large public debt can crowd out private investment and affect the supply side of the economy. When the government borrows heavily from the market to finance its debt, it competes with the private sector for available funds. This can lead to higher interest rates and reduced access to credit for businesses and individuals. A decrease in private investment can result in slower economic growth and potentially impact the price level.

5.Fiscal Policy: How a government manages its debt and implements fiscal policy can also impact the price level. If a government pursues expansionary fiscal policies, such as increasing government spending or reducing taxes, it can stimulate aggregate demand and potentially lead to inflationary pressure and price level increases. Conversely, contractionary fiscal policies, such as reducing government spending or increasing taxes, can have the opposite effect.

Conclusion:

It's important to note that the relationship between public debt and the price level is not straightforward, and other factors, such as the overall state of the economy, monetary policy, productivity, and external shocks, can also significantly influence price levels. Analyzing the specific dynamics of a particular country's economy requires a comprehensive understanding of its unique circumstances, policies, and economic indicators.

15.2 Crowding out of private investment and activity

Crowding out of private investment and activity due to public debt refers to a situation where increased government borrowing and the accumulation of public debt lead to a reduction in private sector investment and economic activity.

When a government runs a budget deficit and needs to finance it through borrowing, it issues bonds or treasury bills to the public. These bonds compete with other investment opportunities available in the economy, including private sector investments. As a result, the increased demand for government bonds can drive up interest rates.

Higher interest rates have several effects on private investment and economic activity:

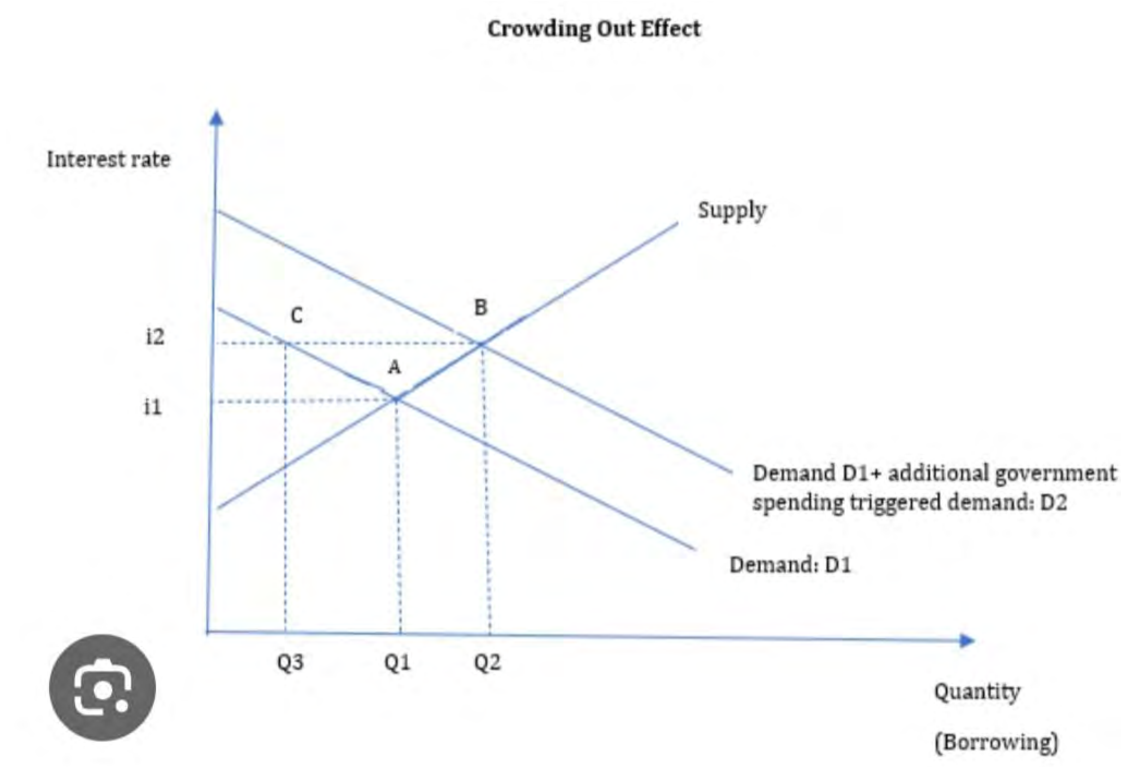
1. Increased Cost of Borrowing: Higher interest rates make it more expensive for businesses to borrow money for investment purposes. This increase in borrowing costs reduces the incentive for private firms to undertake new projects or expand existing ones.

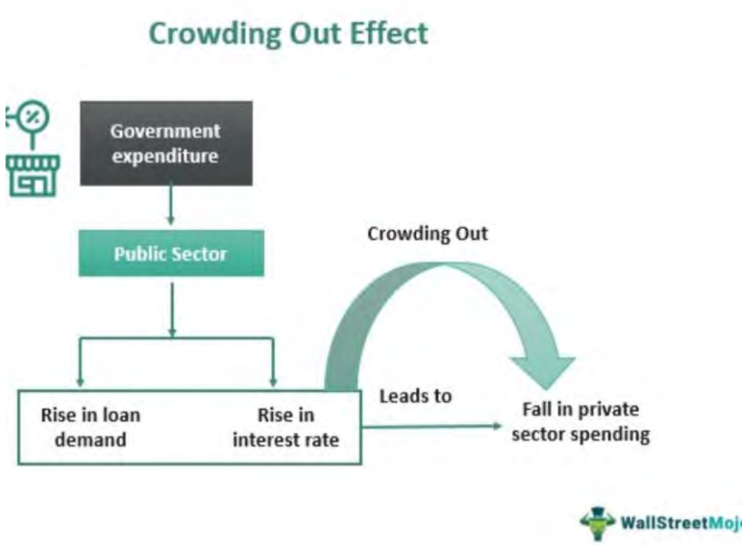
2. Diversion of Savings: When the government borrows heavily, it absorbs a larger portion of available savings in the economy. As a result, there is less capital available for private investment. This reduction in the availability of savings limits the funds that businesses can use to finance their projects.

3. Crowding out Investment: The increased competition for funds and higher borrowing costs may lead to a decline in private sector investment. Businesses may decide to postpone or cancel their investment plans due to the unfavorable borrowing conditions. This can result in a slowdown in economic growth and reduced productivity.

4.Reduced Consumer Spending: Higher interest rates can also impact consumer spending. When borrowing costs increase, individuals and households may have less disposable income to spend on goods and services. This can lead to a decrease in consumer demand, affecting businesses across various sectors.

Overall, crowding out occurs when the government's increased borrowing and public debt accumulation squeeze out private sector investment and activity by raising interest rates, diverting savings, and reducing consumer spending. This phenomenon can have a negative impact on economic growth and the overall health of the economy.





The above diagram explains the crowding out principle. When interest rate rises from i1 to i2, the private investment reduces from Q3 to Q1, a rise in Government borrowing may reduce the private sector investment when government draws heavily on the pool of resources available for investment in the economy, private investment may be crowded-out.

This is resulted through rising interest rate when government tends to borrow more, demand for funds increases assuming a given demand for credit in the financial market by private sector. So the overall demand curve of credit shifts and consequently, there shall be a substantial reduction in private investment.

Similarly In the second figure crowding out effect has been explained.

Reductions in corporate capital spending can partially offset benefits brought about through government borrowing, such as those of economic stimulus. However, this is only likely when the economy is operating at capacity. In this respect, government stimulus is theoretically more effective when the economy is below capacity.

If this is the case, however, an economic downswing may occur. This can reduce the revenues that the government collects through taxes and spur it to borrow even more money. Theoretically, this, in turn, can lead to a vicious cycle of borrowing and crowding out.

Is Crowding Out Good or Bad?

Crowding out, if it exists, can be seen as negative because it can slow economic activity and growth. This can happen as higher taxes reduce spendable income and increased government borrowing raises borrowing costs and reduces private sector demand for loans.

Why Is Crowding Out Important to Understand?

It's important to understand because it contradicts the well-understood theory that government spending boosts private sector spending and supports a vibrant economy.

How Does Crowding Out Affect Aggregate Demand?

According to the theory's effect, it should reduce aggregate demand because it discourages spending and the demand for borrowing due to higher interest rates and reduced income.

It can be concluded that, The crowding out effect is a theory that suggests that increased government spending ultimately decreases private sector spending.
This is due to the higher cost of loans and reduced income that can result when the government increases taxes or borrows by selling Treasuries to obtain more revenue for its own spending.

15.3 Public Debt Management

Public debt management refers to debt policy formation that seeks to achieve certain objectives and the implementation of such a policy. It also refers to various authoritative decisions. Public debt management are the methods which are adopted by the government through the process of floating, refunding and repayment of public debt. In other words, it is the management of the government regarding public debt so that it must not have any inflationary or deflationary effect on the economy. According to Prof. Abbot, Public debt management is concerned with the decisions of forms of public debt, in terms of which new bonds are sold, maturing debts are redeemed or refunded, the proportion in which different forms of public debt should be issued, the pattern of maturities of debt and its ownership etc.

Thus, the public debt management is to manage the affairs concerned with
(a) the form of issue public securities,
(b) the form in which the public debt is refunded,
(c) the proportion of different types of debt to be issued,
(d) the pattern and structure of interest rates on securities
(e) the decision relating to the ownership of the bonds. The management of the public debt is very significant as it affects the changes in the size of public debt. In short, public debt policy, fiscal

policy and monetary policy are closely connected with each other for the determination of economic policy.

Now the question is why the public debt management is necessary? One cannot deny the fact that for the proper utilization and national augmentation of its effects on the economy, the management of public debt is very imperative. Anyhow, some of the various reasons for the necessity of public debt management are highlighted below:

(1) The increase or decrease of public debt has its effect on the working of any economy.

(2) The policy of public debt plays an important role in the formation of economic policy of the country.

(3) The economic development of a nation may foster or hamper due to the changes that occur due to the utilization of public debt.

(4) It is necessary to know the conditions which are essential for the Implementation of planning policies.

(5) It gives the knowledge of the actual amount of requirements for the implementation of a certain policy.

OBJECTIVES OF PUBLIC DEBT MANAGEMENT

(i) Public debt management must sub serve the economic policy of the government. During the period of depression it should help to raise the purchasing power and effective demand in the economy and vice-versa in inflation.

(ii) In the time of war and for economic development, it should provide sufficient funds to meet the requirement of the economy.

(iii) It should be undertaken in such a way that it must be the most beneficial for the activities of government.

(iv) It should not have any adverse effect on the economic condition of the country.

(v) It should also be undertaken in such a way as to strengthen the money market.

PRINCIPLES OF PUBLIC DEBT MANAGEMENT To quote Prof. Phillip E. Taylor, three general principles of debt management can be identified as:

(a) The policies pursued must be able to extract from the public without undue coercion.

(b) The extraction of loanable funds from the market and its repayment when debt is retired should not frustrate the smooth growth of the economy.

(c) It should be so placed as to minimize the need to enter the market when it is inconvenient to do so.

However, the principles of debt management are elaborated as under

1. **Minimum Interest Cost of Servicing Public Debt:** The first and foremost principle of debt management should be that the interest rates on the government obligations should be kept as minimum as possible. The structure of interest rates on securities on different maturities should be determined in such a manner so that it may put less burden on the economy. In other words, the cost of serving public debt should be minimum, which in turn, would have a less adverse effect on willingness to work and save.If the average rate of interest it will impose less burden by the way of transferring resources from tax payers to the bond-holders, But, here one thing must be kept in mind that low interest rate policy may create inflationary pressures when the economy is already operating under full employment.
2. **Satisfaction of the Investors;** It is agreed that public debt should be managed in such a manner that it must satisfy the needs of de investors. Such interests of the investor are concerned with the types of securities and terms issued. Therefore, without fulfilling the aspirations of the investors, the government may bind hardship to issue securities Moreover, they may create disturbances in the security markets for sale of such securities and bond-holders may cash their securities for one purpose or the other. Therefore, the government must offer attractive terms and conditions so that investors may invest their money in such securities.

3. **Funding of Short-Term Debt into Long Term Debt;** Another principle of debt management is that it should help to convert short-term borrowings into long-term borrowings. But at the same time, it must take proper precaution that economic stability may not be disturbed at all simultaneously, this operation must not be undertaken to raise the undue rate of interest in the long-run which adversely affect the rate and volume of private investment.
4. **Public Debt must be in co-ordination with fiscal and monetary;** For the proper implementation of the developmental schemes in the economy co-ordination of public debt policy with fiscal and monetary policy must be there. In the long-run, it would lead to maintaining economic stability and economic growth. For example, if the government advises the central bank to follow low bank rate policy to keep the cost of interest payment on the public debt low, it may bring inflation and instability in the economic system of a country. Therefore, this situation can only be avoided if the public debt policy must be in co- ordination with the monetary policy.
5. **Proper Adjustment of Maturity;** The ideal principle of de management is that it must have proper adjustment of maturity with a view to bring high degree of liquidity in the market. Thus, monetary authority should work out a scheme which does not induce the holders of the debt to monetize their debt obligations before maturity time.

15.4 Principle of Debt Management and Repayments

Meaning: Debt management and repayment involve strategies and principles for effectively managing and paying off debts. Here are some key principles to consider:

1. **Assessment of financial situation:** Evaluation of current financial standing: A country must know its income, expenses, and existing debts and determining how much it owes, the interest rates on its debts, and the minimum monthly payments required.
2. **Creating a budget:** Establishing a budget is crucial for managing a country's finances effectively. Calculation of income and allocating funds for essential

expenses, such as housing, utilities, food, and transportation. Setting aside a portion of its budget for debt repayment.

3. **Prioritize the debt repayment:** Assessment of its debts and prioritizing them based on factors like interest rates, outstanding balances, and terms. The most common approaches are the snowball and avalanche methods. In the snowball method, you focus on paying off the smallest debt first, while in the avalanche method, prioritizing the debt with the highest interest rate is done. Choosing the approach that aligns with its financial goals and motivations.
4. **Negotiation with creditors:** If an economy is struggling to meet its debt obligations, it must consider negotiating with its creditors. Contacting them to explain its financial situation and exploring options such as reduced interest rates, extended repayment terms, or a settlement agreement must be considered. Many creditors are willing to work with it to find a mutually beneficial solution.
5. **Debt consolidation:** Debt consolidation involves combining multiple debts into a single loan or credit facility. This can simplify repayment by reducing the number of payments you need to make and potentially lowering the overall interest rate. Evaluate the terms and conditions of consolidation options carefully before proceeding.
6. **Increasing income:** Generating additional income can help accelerate debt repayment efforts. Exploring side jobs, freelancing opportunities, or part-time work to supplement its primary income. Using the extra funds to make larger debt payments and expediting the repayment process.
7. **Minimizing unnecessary expenses:** Making a review of expenses and identifying areas where it can cut back. Reducing discretionary spending on non-essential items and redirect those funds towards debt repayment. This might involve making temporary sacrifices to achieve an economy long-term financial goals.
8. **Building an emergency fund:** While focusing on debt repayment, it's important to establish an emergency fund. Setting aside a portion of its income to create a financial cushion for unexpected expenses is to be taken into consideration. Having

an emergency fund can help prevent further debt accumulation when unforeseen circumstances arise.

9. **Seeking professional advice:** If an economy is struggling to manage its debts effectively, it must consider consulting with a financial advisor or credit counseling agency. These professionals can provide personalized guidance, helping to create a repayment plan, and offer strategies to improve its financial situation.
10. **Stay committed and be patient:** Debt management and repayment require discipline and perseverance. It's important to stay committed to its goals and to maintain consistency in its debt repayment efforts. Understanding that paying off debts takes time and progress may not always be linear. Stay patient and motivated throughout the process.

It can be concluded that everyone's financial situation is unique, so it's essential to tailor debt management and repayment strategies to one's specific needs and goals.

15.5 Repayment or Redemption of Public Debt:

Just as the private individual or organization has to return the loan he or it borrowed, so also the government has to pay not only interest on the public debt but also repay the principal. Experience shows clearly that mounting public debt has a demoralizing effect on the people from the fact that the public is subjected to higher rates of taxation. The sooner, therefore, the debt is cleared, the better for the government. It may also be observed here that if the public debt has been contracted for productive purposes, it may not be strictly necessary to redeem it since the government is getting a source of income to pay off the interest of the debt. But if public debt consists mostly of unproductive or dead weight debt- war debt is a good example of such debt-the sooner it is paid off the better, both for the government as well as for the public.

Different methods are used by a government to redeem its debt. Some of these methods are extreme ones, such as repudiation of debt, while others may not be redemption at all, but payment of one debt with the help of another debt.

1.Repudiation of Debt: Repudiation of debt means simply that the government does not recognize its obligations and refuses to pay the interest as well as the principal. Repudiation is not paying off a loan but destroying it. Normally, a government does not repudiate its debt, for this will shake the confidence of the general public in the government. However, in extreme circumstances, a government may be forced to repudiate its internal or external debt obligations. For instance, internally, the country may be facing financial ruin, bankruptcy and externally it may be faced with shortage of foreign exchange. Generally, a government may not repudiate its internal debt lest it should lead to internal rebellion-those who have lent to the government would obviously rise against the government. However, the temptation of a government to repudiate its external debt obligations may be strong at certain times. Of all the methods of redeeming debt, repudiation is the most extreme, but it is actually not redemption of debt at all.

2. Conversion of Loans: Another method of redemption of public debt is known as conversion of loans, that is, an old loan is converted into a new loan.

Conversion may be resorted to:

(a) when at the time of redemption of a loan, the government has not the necessary funds, and

(b) when the current rate is lower than the rate which the government is paying for existing debt, so that the government can reduce its interest payments. Conversion of a loan is always done through the floating of a new loan. Hence, the volume of public debt is not reduced. Really speaking, therefore, conversion of debt is not redemption of debt.

Sometimes, distinction is made between refunding and conversion of debt, though sometimes both of them are used to mean the same thing Strictly speaking, refunding refers to the method of paying off an old loan carrying a higher interest through a new loan carrying a lower interest rate, refunding, therefore, is the repayment of debt through fresh loans. On the other hand, conversion involves a change in the rate of interest or other details. For instance, at the time of maturity of a loan, the government may give an option to the existing bond-holders either to receive money in cash or to convert their old bonds for new bonds. Broadly, refunding and conversion are similar.

3.Serial Bond Redemption: The government may decide to pay every year a certain portion of the bonds issued previously. Therefore, a provision may be made so that a certain portion of the public debt may mature every year and decision may also be made in the beginning about the serial numbers of bonds which are to mature in the year. This system enables a portion of the debt to be paid off every year. A variant of this type of bond redemption is to determine the serial number of bonds to mature every year through lottery. While under the first variant, the bond-holders know when the different sets of bonds would mature and could take up the bonds according to their convenience, under the second variant, the bond- holders are uncertain about the time of repayment and they may get back their money at the most inconvenient time.

4.Buying up Loans: The government may redeem its debt through buying up loans from the market. Whenever the government has surplus income, it may spend the amount to buy off government bonds from the market where they are bought and sold. Strictly speaking, this is not redemption of debt but buying up of debt. It is a good system provided the government can secure budget surplus. The only defect of this method of cancelling debt is that it is not systematic.

5.Sinking Fund: Sinking fund is probably the most systematic method of redeeming public debt. It refers to the creation and the gradual accumulation of a fund which will be sufficient to pay off public debt. There are many varieties of sinking fund. The most common method is as follows: Suppose the government floats a loan of Rs. 100 crores redeemable in. say, 10 years for the purpose of road construction. At the time the government is floating the loan, it may levy a tax on petrol, the proceeds of which would be credited to a fund known as the sinking fund. Year after year, the tax proceeds as well as interest on investments will make the And grow till after 10 years it becomes equivalent to the original amount borrowed, and at that time, the debt will be paid off. One danger of this kind of method is that a government, in need of money, may not have the patience to wait till the end of the period of maturity but may utilize the fund for purposes other than the one for which originally the sinking fund was instituted.

In modern times, sinking funds are not accumulated and continued from year to year as we have described above. Instead, some funds are earmarked each year for repayment of some part of the debt in the same year. The amount earmarked is not put in a fund and allowed to accumulate but is used every year either to pay off the bonds which are maturing every year or to buy off bonds from the market.

6.Capital Levy:

Public debt may be redeemed through a capital levy which, as we have seen earlier, may be levied once in a way with the special objective of redeeming public debt. It is generally advocated immediately after a war for the following reasons:

(a) Heavy public debt has been incurred during the war to prosecute the war and hence is quite heavy immediately after the war.
(b) War debt is unproductive and is a dead weight on the community necessitating heavy taxation year after year. It will be better to wipe it out once for all by a special levy.
(c) Due to war time inflation businessmen, producers and speculators would have amassed large fortunes and hence it is easier for them to contribute to a capital levy and, in a sense, it is just that they bear a part of the war burden.
(d) Redemption of public debt through capital levy will leave the higher income groups almost in the same old position, since they will be receiving back from the government what they will have paid by way of the special levy.
(e) Redemption, through a special levy, is said to be superior to the method of the sinking fund, as it is levied only once, while for purposes of the sinking fund, taxes have to be imposed year after year. The greatest merit of capital levy is that it will reduce the heavy tax burden which will otherwise be necessary to redeem public debt. But the danger of capital levy is that the government may be tempted to resort to it too often.

Redemption of External Debt:

The repayment of external debt can be only done through accumulation of foreign exchanges to pay for it. This can be done by creating export surpluses. So foreign loans should be invested in those industries which have high productive potentialities and which will promote exports directly or indirectly. At the same time, the exportable surplus should be consist of goods which are readily demanded by foreigners.

15.6 Safe Limits of Public Debt :

Most of the countries have been experiencing an increasing public debt in the post war period. So the question arises whether there is any limit to public debt just like maximum taxable capacity. The government should stop borrowing when it adversely affects the economy, especially the ability and willingness to work and save. Though this is sound theoretically, it is a difficult proposition to fix the upper limit.

Two examples may be considered. In the short period, if the government wants to borrow more, it must offer higher interest rate on its bonds. Loans to government will reduce surplus funds in the market which will again raise the general interest rates. Thus, rising interest rates will discourage indiscriminate and excessive borrowing by the government.

In the long run, the growth of national income and credit helps to raise more public debt. If the governments adopt refunding techniques or conversion, it can easily get new loans to settle the old loans. Thus the volume of public debt continues.

Lerner has stated that public debt could be continued till full employment is reached. So full employment is the limit. Radcliff Committee Report in England had emphasized the role of public debt as an important tool in bringing economic stability. Alvin H. Hansen believes that the problem of public debt can be considered to be within limits if taxation is sufficient to prevent inflation and to provide an equitable distribution of wealth and income.

15.7 Debt Burden Controversy

Debt Burden Controversy: Can the burden of debt Shift to future generations?

The Traditional View:

To the extent which government expenditure is financed through taxation or printing notes, the present generation bears the burden, If public borrowings are made to finance public expenditure, the present generation escapes the burden, and is shifted wholly or a substantial part to posterity who pays the interest charges along with principal . Posterior will have to pay the long term debt and only interest will be paid by present generation when govt. imposes additional taxes for servicing debts in future, the posterity has to suffer a burden of a dead weight loss and which causes an adverse effect on incentive to work and save and thus checks production in future.

Ricardo & Pigou: When public expenditure is financed by loan, the present generation is likely to cut its real investment more and consumption less, as individuals feel richer by holding bond with uncertain future tax obligation. As a result, a relatively smaller amount of capital stock will be left with tax liability for servicing debt to posterity. So future output will be reduced, causing a decline in welfare of posterity. Hence, the real burden of debt is shifted to posterity.

Adam Smith: Loan finance makes a sovereign irresponsible. Its political power increases and it no longer depends upon its subjects.

David Hume: Borrowing leads a nation to bankruptcy.

H. Dalton: Burden of debt cannot be thrown forward or backward through time and to fall upon fall on one generation or wholly on another.

Keynes: In real sense, there would be no shift of burden to the future. The posterity which pays the additional taxes will be benefited from repayment of the debt. The resources are transferred within the future generation from tax payers to bond holders involving no real burden on posterity. If tax payers and bond holders are same, the claim and obligations cancel each other, so there will be no real burden. But if these two groups are distinct, the real costs of debt will fall on the next tax payer class. If the net real benefits exceed the net real costs, there will be no burden. But if the opposite happens, the net real burden falls on posterity. If tax payers and bond holders are the same the claim and obligations cancel each other. So no net seal burden arises. If these two groups are distinct, the real costs of debt will fall on the next tax payer class. But if loans are invested in self-liquidating assets, sufficient income will be yielded in future leaving no real burden on posterity.

Primary Burden of Debt: Classical view holds that the burden falls on the present generation, as it is measured in terms of decline in the output in the private sector due to resource transfer to the public sector. But Keynes opines that this is true in a full employment economy. But in an underemployed economy government borrowing will not reduce private sector resources and hence output will not be reduced in the private sector. So, no primary burden falls on the present generation. On the contrary, when effective demand improves due to government spending, the investment function in the private sector may increase, so the output may increase in the future.

Prof.P.M Buchanan:

Primary burden is always shifted to posterity. The concept of primary burden be interpreted in terms of individual attitude towards the economic wellbeing rather than in terms of changes in the private sector output.

When a project is financed through borrowings, the bond holders don't suffer any burden because they don't feel any adverse changes in the economic wellbeing. Their subscription being voluntary, they make a rational choice in holding wealth in terms of less liquid government securities without involving any burden sacrifice.

In the future, when debt by repaid by taxing posterity, the resources are transferred from the tax payers to the bond holders, so the tax payers feel worse off, but bond holders are not better off as they exchange their cash for bonds. So, the posterity becomes worse off in terms of disutility experienced by tax payers. So, the burden shifts to posterity.

But Buchanan's thesis overemphasizes the individual attitude to the debt. It is wrong to assume that when people get their bond exchanged, their satisfaction level is unchanged. On the other hand, holding cash increases real income which would offset the loss of real income experienced by taxpayer. Hence, no real loss is suffered by posterity.

Conclusion:

There is not much to choose between the various methods for every method has its advantages as well as disadvantages. But the most common and sensible method is to redeem part of the public debt every year, so that the debt may not go on mounting.

15 .7 Key Words

Public Revenue

Rate of Interest

Repudiation

Non-Banking Financial Institution

Commercial Banks

Central Bank

Productive debt

Funded Debt

15.8 Model questions

1. What is the nature of burden of public debt?
2. Can debt become a real burden on the community?
3. What are different methods of managements of public debt?
4. Describe Public debt management with its main principle.
5. Write short notes on :
    - Redemption of debt
    - Debt burden and posterity
    - Monetization of debt

15.9 References

1. Principle of Public Finance by H Dalton
2. The Economics of Public Finance by P E Taylor
3. Public Finance by A G Bucher
4. Public Finance by C F Bastable
5. Public Finance S Ganguly
6. Public Finance by R K Lekhi
7. Public Finance and fiscal policy by R K Chowdhary
8. Public Finance theory and practice by R A Musgrave

Unit 16 Public Budget

Structure

16.0 Learning Outcomes

After going through this unit, the learners will be able to understand

- What are the different types of Budgets?
- What is Performance Based Budgeting?
- Traditional vs. Performance Based budgeting
- What is Zero Based Budgeting (ZBB)?
- Characteristics of ZBB

16.1 Introduction

Public budget is a statement of expected revenue and proposed expenditure in one current year. It sets procedure in which the collection of revenue and administration of expenditure is to be executed.

16.2 Purpose

There are a number of objectives which the budget seeks to attain simultaneously. The overall purpose is to use the budget as an instrument of economic policy. A budget is such a plan which explicitly mentions the programmes that are to be taken up in the course of a fiscal year.The budget draws up schemes of revenue mobilization on the one hand and programmes of public expenditure on the other. To achieve efficiency in public expenditure, physical targets of attainment are specified in the budget.To achieve efficiency in revenue collection, the cost of collection to the amount of revenue collected must be on basis of past trends and present level of cost of collection in the budget. Formulation of future programmes on the basis of past experience is an important purpose of public budget.

A very significant purpose of the budget is to study the generation of saving, investment, consumption and capital formation to assess the trends of growth in the economy. Hence, budget serves as a powerful weapon of financial control in respect of both collection of revenues and disbursement of them.

A public budget may be further defined as a financial plan that outlines the government's revenues and expenditures for a specific period, typically a fiscal year. It serves as a roadmap for managing public finances and allocating resources to various programs, projects, and services. Public budgets are crucial for governments to fulfil their responsibilities, implement policies, and address the needs and priorities of their constituents.

16.3 Types of Budget.

Public budgets can be categorized into different types based on various criteria. Here are some commonly recognized types of public budgets explained briefly.

Balanced Budget

A balanced budget occurs when a government's total revenues equal its total expenditures within a given period. In this scenario, there is no deficit or surplus.

Surplus Budget

A surplus budget refers to a situation where the government's total revenues exceed its total expenditures. This may occur when the government collects more taxes or receives other sources of income than it spends.

Deficit Budget

A deficit budget occurs when the government's total expenditures exceed its total revenues. Governments may resort to deficit budgets to finance projects, stimulate the economy, or cover revenue shortfalls. This often results in borrowing or increasing the national debt.

Incremental Budget

An incremental budgeting approach involves making adjustments to the previous budget by adding or subtracting funds based on incremental changes. It usually considers past budgets as the starting point and makes incremental changes to accommodate new priorities or circumstances.

Zero-Based Budget

In contrast to incremental budgeting, a zero-based budget requires government agencies and departments to justify their entire budget from scratch each year. It involves a thorough review of all programs and expenses, ensuring that each item receives scrutiny and justification.

Performance-Based Budget

Performance-based budgeting focuses on allocating resources based on the performance and outcomes achieved by government programs. It emphasizes setting measurable goals, monitoring performance indicators, and allocating resources accordingly to maximize efficiency and effectiveness.

Programme Budget

A programme budget involves categorizing expenditures based on specific programmes or activities rather than organizational units. This approach provides a clearer picture of the resources allocated to each program, facilitating better decision-making and accountability.

Capital Budget

A capital budget deals with long-term investments and expenditures related to infrastructure development, major projects, and acquisitions of fixed assets. It focuses on funding large-scale initiatives such as constructing buildings, roads, bridges, or investing in technological advancements.

Operating Budget:

An operating budget encompasses day-to-day expenses required to run government activities. It includes items such as salaries, utilities, maintenance, supplies, and other recurring costs necessary to maintain ongoing operations.

Cash Budget

A cash budget focuses on tracking the inflows and outflows of cash over a specific period. It helps governments manage their liquidity, monitor cash reserves, and plan for any potential shortfalls or surplus.

16.4 Performance Based Budgeting

Performance-based budgeting is an approach to budgeting that focuses on the outcomes and results achieved by government programs and agencies. It aims to align funding decisions with the desired performance objectives and improve the efficiency and effectiveness of public spending. Several main concepts are employed in performance-based budgeting:

Performance Measures:

Performance-based budgeting relies on the use of performance measures or indicators to assess the effectiveness and efficiency of programs. These measures can be quantitative (e.g., number of clients served, cost per unit of output) or qualitative (e.g. customer satisfaction, program quality). Performance measures provide a basis for evaluating the performance of programs and allocating resources accordingly.

Performance Targets:

Setting specific performance targets helps to establish clear expectations for program outcomes. These targets define the desired level of performance that a program or agency should achieve. Targets can be based on historical performance, best practices, or policy goals. Performance targets facilitate monitoring and accountability, as they provide a benchmark against which actual performance can be measured.

Performance Budgeting Techniques:

- Performance-based budgeting incorporates various techniques to link funding decisions to performance outcomes. These techniques include:

- Outcome Budgeting: This approach focuses on funding programs based on the desired
- Outcomes or results they are expected to achieve. Budget allocations are tied directly to the accomplishment of predefined outcomes.

Program Evaluation: Rigorous program evaluation techniques are used to assess the effectiveness and efficiency of programs. The results of evaluations inform budget decisions, with well-performing programs receiving more resources and underperforming programs subject to scrutiny and potential funding reductions.

Performance Contracts: Contracts or agreements are established between funders (such as government agencies) and program providers to specify performance expectations. Funding is contingent upon meeting agreed-upon performance targets, providing incentives for improved performance.

Performance Reviews: Regular performance reviews are conducted to evaluate program performance, identify areas for improvement, and make informed budgetary decisions. Performance reviews involve analyzing performance data, conducting evaluations, and engaging stakeholders in the decision-making process.

Transparency and Accountability: Performance-based budgeting emphasizes transparency and accountability in resource allocation. By linking funding to performance outcomes, it enables stakeholders, such as policymakers, citizens, and oversight bodies, to assess the effectiveness of public spending and hold government agencies accountable for achieving results. The traditional budgeting system laid major emphasis on the financial aspects of the government operations. It is well known fact that the resources as the disposal of the government are always scarce in comparison to the various services which have to be provided to the society. Thus, government faces the same problem of choice-making caused by security versus multiplicity as an individual faces. All the altemative proposals should be weighed in terms of their respective c and benefits i.e., to compare the actual and expected results. No doubt, the Costs government can collect the information from various agencies but it is difficult to link the information with the financial data connected to the budget. United Nations viewed the lack of accurate information as it, reduces the usefulness of the budgetary approach ever for the purpose of legislative review and appropriation. Hence, the need was felt to develop the use of performance budgets.

The major break-through in the performance budgeting was noticed after the publication of the First However Commission Report in 1949 though some efforts were made to adopt in different parts of American states during 1940 According to the report of the commission, the whole budgetary concept should be based upon functions, activities and projects initiated by the government. A.E. Buck also agreed with the report of the Task Force Report and recommended performance budgeting. To quote him, A performance budget should be substituted for the present budget, thus, presenting in a document of much briefer compass the government expenditure requirements in terms of services, activities and work projects rather than in terms of the things bought. On the basis of performance from 1951, Federal U.S. Government decided to formulate its budget. Later on other countries have also followed this approach. In India, the

Administrative Reform Commission Study Team recommended to adopt the performance budgeting on the following grounds:

1. To improve the formulation of the budget and facilitate the process of decision-making at all levels of government.
2. To provide efficient accounting system of the management with additional tool for controlling the financial operations.
3. Performance audit should be more purposeful and effective.
4. The purposes and objectives of the funds should be clearly mentioned to bring out the programs in financial terms.
5. Legislature ought to understand and review the budget properly.

The Administrative Reform Commission suggested the concept of performance budgeting in 1970-71 in all the government departments while the government started the preparation of performance budget in a phased manner from the year 1968-69. However, now all the ministries and departments of the Government of India have been preparing performance budget since 1975-76.

Limitations

The technique of performance budgeting suffers from certain limitations:

1. This system involves quantitative and financial evaluation of government functions, activities and programs which is absolutely
Impossible. In other words, it ignores qualitative evaluation.
2. The performance can serve useful purpose only if there are well-
Organized departments and organizations to identify with definite activities,
Projects and programs.

3. This system has limited scope in case of objectively measured operations of the government as law and order, defense, external affairs etc.
4. This system has no universal applicability.

Conclusion:

Performance-based budgeting aims to improve decision-making by integrating performance information into the budget process, fostering a culture of continuous improvement, and promoting efficient resource allocation based on program effectiveness and desired outcomes.

16.5 Traditional vs. Performance Based budgeting

Traditional Budgeting:

Traditional budgeting is a budgeting approach that has been widely used by governments and organizations for many years. It follows a top-down approach, where the budget is determined based on historical spending patterns and incremental changes from previous budgets. In traditional budgeting, the focus is primarily on inputs and expenditures rather than on outcomes or performance.

Key characteristics of traditional budgeting include:

Historical reference: Traditional budgeting relies heavily on historical data, using previous budget cycles as a reference point for determining future budget allocations. It often involves adjusting previous budgets by a certain percentage or taking into account inflation rates.

Incremental approach: The budget is typically prepared by making incremental changes to the previous year's budget. These changes are based on factors such as inflation, cost increases, and anticipated changes in demand or service levels.

Input orientation: Traditional budgeting focuses on inputs and inputs alone. It mainly looks at how much money is allocated to various departments, programs, or activities without explicitly linking those inputs to expected outcomes or performance metrics.

Fixed budget period: Traditional budgeting typically operates on an annual cycle, where budgets are set for a fixed period, usually a fiscal year. These budgets remain relatively unchanged until the next budget cycle, regardless of changes in circumstances or performance.

Performance-Based Budgeting:

Performance-based budgeting (PBB), also known as performance budgeting, is an alternative approach that aims to link budget allocations to the outcomes or performance achieved by government agencies or organizations. PBB emphasizes results and accountability by measuring the effectiveness and efficiency of programs and activities.

Key characteristics of performance-based budgeting include:

Outcome-focused: PBB shifts the focus from inputs to outcomes. It seeks to align budget allocations with specific performance goals, targets, and desired outcomes. This approach encourages agencies to define clear objectives and establish performance metrics to measure progress.

Performance measurement: PBB involves the systematic measurement and evaluation of the performance of programs and activities. Performance indicators are established to assess the efficiency, effectiveness, and impact of different initiatives. Budget decisions are then based on these performance assessments.

Linking resources to performance: In PBB, the budget allocation process is directly tied to the performance of programs and activities. High-performing programs may receive increased funding, while underperforming ones may face budget reductions or reallocation of resources to more effective areas.

Flexibility and adaptability: Unlike traditional budgeting, PBB allows for greater flexibility and adaptability. Budget allocations can be adjusted throughout the budget cycle based on real-time performance data and changing priorities. This enables organizations to allocate resources more effectively and respond to emerging needs.

Transparency and accountability: PBB promotes transparency by requiring agencies to demonstrate the results and outcomes achieved with the allocated resources. It enhances accountability as decision-makers can assess whether the expected outcomes were delivered and make adjustments accordingly.

Critique and Comparisons:

While performance-based budgeting offers several advantages over traditional budgeting, it also faces some challenges and criticisms. Here is a critical comparison of the two approaches:

Advantages of Traditional Budgeting:

Simplicity: Traditional budgeting is often easier to implement and understand compared to Performance-based budgeting, which involves complex performance measurement systems and data collection.

Stability and predictability: Traditional budgeting provides stability and predictability since budget allocations remain relatively unchanged throughout the budget period, which can be beneficial for long-term planning.

Disadvantages of Traditional Budgeting:

Lack of performance focus: Traditional budgeting does not explicitly link inputs to desired outcomes, which can lead to inefficient resource allocation and hinder performance improvement.

Inflexibility: Traditional budgeting tends to be inflexible and may not allow for adjustments in resource allocation based on changing priorities, emerging needs, or evolving circumstances.

16.6 Zero Based Budgeting

Since every outlay in the budget has some attainment objective, either short-run or long-run, it is necessary to regularly examine the expenditure components in the light of anticipated results. In the case of budgeted expenditure having been associated with long term objective, the time-bound expected result-component should be examined occasionally. This is what is done by Zero-base budgeting. It is not necessary, however, that each and every program be reviewed afresh or restructured anew every year under the zero-base budgeting, though such necessity might arise in case of some of the programs. But it does require that programs should not go unscrutinised in any case for a long period. Such budgeting is a new technique of bringing the spending agencies under a regular scrutiny and accountability. Zero-base budget, hence, acts as a constant reminder of the necessity of utmost efficiency in public expenditure and in resource allocation programs.

Zero-base budgeting requires organizations' preparing their budgets not to take earlier year expenditure for granted, as in the case of conventional budget, but should start afresh. It means that while framing its budget for the ensuing year, an organization should start from zero point instead of treating the current budget as the starting point or the base for next year's budgetary exercise. This concept implies that a complete re- examination of on-going programs and activities should be carried out to assess their continued utility instead of following the incremental approach to budgeting. Under it, new expenditure proposals are to compete on the same footing with the on-going expenditures based on their respective merits to claim a share of the available resources. A system of zero-base budgeting was first introduced in a formalized way in the United States department of agriculture in its 1964-budget. But it proved unsuccessful. In India, its first application was in the department of science and technology in 1983. The Seventh five-year plan had also emphasized the need for introducing zero-base budgeting. The Government of India formally introduced this approach through a letter addressed by finance ministry in July, 1986 to various ministries and departments asking them to adopt the system from 1987-88 budgets. It also emphasized the need for public sector enterprises and departmental undertakings taking to this methodology of budgeting. However, few departments have looked seriously at this approach. The only department which has implemented it in true sense is the department of space, which has already set a tradition in this matter. The present unfavourable financial situation of India has pushed up further the necessity as well as opportunity of introducing the system on a wide scale. If in this situation, the country is able to pressurize its introduction in various departments and ministries, the chances of its success are all the greater. In simple words, zero base budgeting is a way to justify its budget requests from the bottom up, evaluating alternative program packages and ranking programs as to select the best alternative and allocation of resources. In the words of Peter A Phyrr , zero base budgeting is an operating planning and budgeting process that requires each manager to justify a budget request in detail. Prof R. A Musgrave defines it, as a team suggests the idea is to consider the budget as a whole rather than to examine incremental change only.

The former US President Mr. Jimmi Carter has stated that in zero bases budgeting the budget is broken into units called decision packages which are prepared by managers at each level. These packages cover every existing or proposed activity of each department. The packages include an analysis of purpose, cost, measures of performance and benefits, alternative courses of action and consequences of not performing the activity. Then all packages are to be ranked in order of priority. After several discussions between department heads and chief executive, the rankings are finalized and packages up to the level of affordability are approved and funded Thus, in this system, the exercise is taken up from a clean slate. Neither the base year nor the minimum level of expenditure is taken as given which is quite in contrast with the current prevailing system of incremental budgeting. All the financial requirements of the various units of an organization are critically assessed as against the traditional budgeting system in which the financial allocations are just increased.

16.7 Characteristics of ZBB

The following are the main characteristics of the Zero-Base Budgeting:
1. Identification of Decision Unit: A decision unit may be program of a project. In each and every case decision units has an Identification manager. The decision unit has the responsibility to implement a particular allocation.

2. Decision Package: Decision package has revolutionized the budget concept. It is a document that identifies and describes each decision unit so that the management can evaluate it and rank it. The decision package is a statement of objectives, current operations, alternatives and Now, recently, zero base budgeting approach has been adopted by the department of Central Government from April 1, 1987, as one of the steps to control public expenditure. It will be applied to both non-development and development expenditure. In short, ZBB requires:

(i) Identification and shortening of objectives.
(ii) Selecting the best alternative through cost benefit and cost effect-effectiveness analysis.
(iii) Investigation of various alternative ways attaining those objectives and targets.
(iv) Prioritization of various programs.
(v) Switching of resources from programs with lower priority to those with higher priority.
(vi) Eliminating those programs which have outlined their practical utility.
Indian economic environment could rightly be said conducive for the implementation of Zero Base Budgeting. Executive participation, work priorities, better administration etc., are the factors which could facilitates the implementation of the system. However, there exists dire need to look into the overall impact of some of the factors like multi-level decision making. Lack of proper MIS etc. As these impediments could badly effect the proper implementation

of the system, therefore, efforts should be made to minimize their adverse impact. The successful implementation of the system calls for the overall re- view of the various activities of the ministries or departments, if necessary, in the initial stages the services of outside experts could be requisitioned. Moreover, to enable the people associated with the implementation to understand the objectives and concept of the system in a better way, it would be essential to take necessary steps to educate them about all the important aspects of the new system. With a view to train the executives who are responsible for the smooth and effective implementation of system, services of budget analysts could be requisitioned. Thus, from the above analysis of zero base budgeting it can be better concluded that this system can be implemented effectively with necessary safeguards. If the system of zero base budgeting is implemented with the required preparation, it would go a long way in helping the country to effectively control the unproductive expenditure.

Expected Benefits

The Pro-Zero-Base Budgeting claims that the system would certainly prove very effective as it highlights

(i) The budget process in a comprehensive way making clear cut analysis of priorities, objectives and needs of the economy.

(ii) It is a link between learning and budgeting

(iii) It will help to raise cost consciousness and evaluate the cost effectiveness of its

16.8 Summary

It's important to note that different governments and jurisdictions may use variations or combinations of these budget types based on their specific needs, priorities, and budgeting practices. The choice of budget type depends on factors such as the government's fiscal situation, policy objectives, transparency requirements, and decision-making processes.

16.9 Key Words

Balanced budget

Deficit budget

Zero based budget

Performance- based budget

Public Budget

16.10 References

U.K. Hicks -Public Finance, Macmillan and company, London, Second edition.

2. J. Burkhead-Govt Budgeting.

3. Philips E. Taylor-Economics of Public Finance, Third edition, Oxford and IBH Publishing Company, New Delhi.

16.11 Model Questions

1-What do you mean by public budget? Give its importance.

2-Explain the various types of budget.

3-Briefly explain zero based budgeting.

4-Explain the concept of performance based budgeting.

5-Write notes on:

a-Types of budgets.

b- Purposes of public budget.

ଓଡ଼ିଶା ରାଜ୍ୟ ମୁକ୍ତ ବିଶ୍ୱବିଦ୍ୟାଳୟ, ସମ୍ବଲପୁର
Odisha State Open University, Sambalpur
www.osou.ac.in
e-mail: info@osou.ac.in