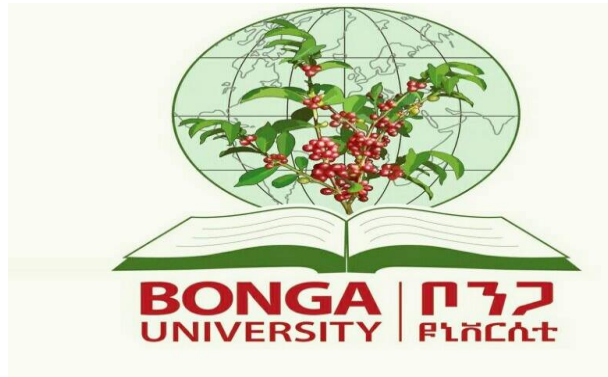


PUBLIC FINANCE

(Course code: econ3122) hand out



BONGA UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

DEPARTEMENT OF ECONOMICS

Targeted Group: 3rd Year Economics Students

Semester II

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Chapter One

WHAT IS PUBLIC FINANCE?

Chapter objectives

Dear learner, this is the first chapter for the course public finance. Thus it will acquaint you with basic concepts in the subject matter. In this chapter issues like nature of public finance, comparison between public finance and private finance, and role of public finance will be discussed.

Then after reading this chapter, you will be able to:-

- Define public finance
- Express the nature and scope of public finance
- Compare and contrast between public finance and private finance
- Express the significance of public finance
- State the role of public finance both in prosperous and developing countries.

1. Meaning and Scope of public finance introduction

The participation of the government in the economic activities is essential to accomplish the goals of any welfare state. Classical economists advocated minimum functions for the government. Subsequently, the economists Keynes demonstrated that it was possible through fiscal activities of the state to increase employment and to maintain it at high level. This realization led to emphasis on the active participation of the state in the economic activity. The governments of advanced countries are committed to stability and full employment. In case of under developed countries the government aims at accelerated economic development. Government sector can play a decisive role in shaping and charting the path of any economy. Depending on the level of development of each country the roles of government sector differ. However, in all cases the aim is to attain full employment and economic development through the development of agriculture, industry and service sector.

1.1 Definition of public Finance

The name of the subject is given by different economists differently such as; fiscal economics, public sector economy, public economics, fiscal science and public finances etc.

Schultz and Harris define public finance as adjective; it describes public which refers to not only government but also utility enterprise and charitable organizations.

According to **Dalton**, “public finance is one of those subjects which lie on the borderline between economics and politics.

Public finance, according to the traditional definition of the subject, is that branch of Economics which deals with, the income and expenditure of a government. In the words of **Adam Smith**:

"The investment into the nature and principles of state expenditure and state revenue is called public finance".

AC.Pigious define public finance is the study of public revenue and expense.

The earlier economists were perfectly justified in giving this definition of the science of public finance because the functions of the public authorities in those days were simply to raise revenue by imposing taxes for covering the cost of administration and defense.

Public finance is the study of how the government collects and spends revenue and real resources. It's the field of economics concerned with how the government raises money, how that money is spent, and the effects of these activities on the economy and on the society. Public finance studies how the governments at all levels- national, state and local provide the public with desired services and how they secure the financial resources to pay for these services.

1.2 Scope of Public Finance

It is the coverage of public finance. Since activities of government are wide, then scope of public finance is also too. The scope of the science of public finance now-a-days has widened too much. It is due to the fact that modern states have to perform multifarious functions to promote the welfare of its citizens. In addition to maintaining law and order within the country and provision of security from external aggression, it has to perform many economic and commercial functions. Due to the increased activities of the state, there has taken place a vast increase in the expenditure of the public authorities. The sources of revenue have also increased. Taxes are levied not for raising the revenue alone but are used as an important instrument of economic policy. Public finance now includes the study of financial administration and control as well. We, therefore, agree with Professor **Bastable** when he defines public finance as that: “Branch of economics which deals with income and expenditure of public authorities or the state and their mutual relation as also with the financial administration and control the term public authorities includes all bodies which help in carrying on the administration of the state)".

The study of public finance is split up into the following parts (scopes);

1) Public Revenue: it deals with the sources of the public revenue, the principles and the effects of public revenue on the economy. Public revenue is the means for public expenditure. Public revenue has two main sources

1. Tax revenue: Taxes are compulsory payments to government without expectation of direct return or benefit to tax payers. Tax is one of the most important sources of revenue.

We have two major types of tax revenue source based on impact or incidence

A. Direct tax: those tax whose burden or impact and incidence fall on the same person such as employee income tax, business income tax, rental income tax, agricultural income tax and other income tax interest income, royalty tax, capital gain tax, property tax, gift tax and inherent tax.

B. Indirect tax: are those tax whose impact (immediate burden) and incidence (ultimate burden) fall on different person such as value added tax (VAT), excise tax, turnover tax (TOT), sur tax, customs duty and stump duty etc.

The objectives of taxation are to minimize income and wealth inequalities, stabilize the economy, discourage the consumption of harmful products, provide incentives for capital formation in the private sector, reduce regional imbalance ,enhance standard of livings ,utilize the scarce resources for the production of more essential goods ,minimize unemployment and encourage export .

1. Non tax revenue: This is revenue collected from public undertakings, income from issuing of currency, income from the sale of public assets, gift and donation, foreign debt etc. Major constituents of non-tax revenue in Ethiopia are charges, fees, fines, pension contribution, and investment revenue.

2) Public Expenditure: This consists of the study of the principles and the effects of public expenditure. Government may have three type of expenditure

- A. For maintain ace of the government
- B. For the society
- C. To help other countries

Public expenditure has two broad headings

- i. **Developmental:** it includes social and community services, economic services, and grants in aid.
- ii. **Non developmental:** it consists of interest payments, administrative services, and defense expenses.

3) **Public Debt:** this part studies the causes and the methods of public borrowing as well as public debt management. They are **two** types of public debt.

- 1. **Internal debt:** Increasing need of government for funds cannot be fully met by taxation alone in under developed and developing countries due to limited scope of taxation. Government therefore has to resort to alternate internal sources.
- 2. **External debt:** In under developed and developing countries, internal sources are limited. Under developed and developing countries, therefore go for external debt.

Public debt has the objective raising normal current expenditure, exigencies like war, finance productive government enterprise, finance public social welfare and economic development. External debt is an immediate source of funds for development. However, such debt has drawbacks political subordination, other obligation and Excess supply of goods and services in debtor country.

4) **Budget (fiscal policy):** this part is dealing with budget allocation process which is a key to the government's roles of allocation, redistribution of resources, and economic stabilization. Fiscal policy refers to that segment of national economic policy, which is primarily concerned with the receipts, and expenditures of these receipts and expenditures. It follows that fiscal policy relate to those activities of the state that are concerned with raising financial resources and spending them. Resources are obtained through taxation and borrowing both within the country and from abroad. Spending is done mainly on defense development and administration. Financial accounts of the income and expenditure position are shown in budgetary statement. Budget can act as an important tool of economic policy. The state by its policy of taxation-regulated expenditure can influence the economic activities and development. The annual budget for the Federal Government of Ethiopia is prepared by the Ministry of Finance and Economic Development (MoFED) and the budgets for the regional

governments by the respective regional finance bureaus. Taking the recent example, The Ethiopian government budget 45% of annual budget for capital budget and 55% for recurrent expenditure for year 2011E.C. Budget is divided into two parts: Revenue Budget and Expenditure Budget.

1) **Revenue budget:** This forecasts the total revenue collections of the government from tax and non-tax sources. In Ethiopia, it is classified into three parts:

- i. **Ordinary Revenue:** tax and non- tax source ordinal revenue
- ii. **External Assistance:** External assistance received from friendly countries is called bilateral assistance; whereas assistance (grant) received from multilateral or international institutions is known as multilateral assistance.
- iii. **Capital Revenue:** It comprises the money received by the government from the sale of government assets, collection of loans, counterpart fund and external loans

2) **Expenditure Budget:** Expenditure budget is a forecast of the total expenditure by the government, in a year. In Ethiopia, it is classified into **two** parts:

- i. **Recurrent Expenditure:** Recurrent expenditure represents expenses made by the government which are recurrent in nature. The recurrent expenditure is classified in Ethiopia under **four** functional categories:
 - A) **Administrative and General Services:** it expense spend for activities as performed by political organs of the state such as council of representatives, ministries, defense etc..
 - B) **Economic Services:** budget expenditure for agricultural, industrial and service sector activates.
 - C) **Social Services:** Health, education, and culture...
 - D) **Other Expenditures:** Other Expenditures include pension payments, repayment of public debts, provision of unforeseen expenses and similar items
- ii. **Capital Expenditure:** Capital expenditure represents expenses made by the government for the implementation and expansion of development projects, research and development programme, government expenditure on construction, infrastructure, industry, machinery, building and equipment. However, in most developing countries, recurrent expenditure is mostly financed from domestic revenue sources i.e, from tax and non-tax revenues, whereas capital expenditure is usually financed by external borrowing and grants.

- 5) **Financial administration** (fiscal policy and administration): This category includes the preparation of financial budget, the control and administrations of the budget relevant problems auditing etc. The term budget includes '**Annual Financial Statements**' which incorporates all the annual statements of receipts and expenditures of the government.
- 6) **Economic stabilization**: it is only one aspects of the broader field which includes income policy, development policy, price policy and employment policy.

1.3 Public Finance and Private Finance

Before directly embark on the public and private finance let us define the two basic terms as follow; The public sector includes public institutions at the local, regional, national and inter- or supranational level. The private sector includes small- and medium sized, as well as large and trans- or multinational companies. Something distinct from the private finance, the question, which we are faced is, what are the differences between private and public finance? That leads to the separate treatment of public finance.

Similarities

1. **Rationality**: both kinds of finance are based on rationality i.e. maximum satisfaction. If sometimes the individual is tempted by circumstances to act in an irrational and wrong way, the government is also subject to such circumstances in regard to expenditures. Of course there may be unwise use by the government to its income.
2. **Borrow Funds as a common feature**: just as an individual cannot have enough income to cover his expenses and fills it by borrowing from others, the government also unable to meet all its targets due to budget constraint and borrow funds from others.
3. **Satisfaction of human wants**: Individual is concerned with the personal wants, while the Government is concerned with the social wants. Thus, both the private and public finance have the same objective, viz, the satisfaction of human wants.
4. **Economic Choice a Common Problem**: Both the individual and Government face the problem of economic choice. That is their sources of revenue are limited, comparing with their expenditure. Hence they have to satisfy the unlimited ends with limited means.
5. **Both are engaged in economic activities**: Including production, exchange, saving, capital accumulation investment etc.
6. **Balancing of Income and Expenditure**: Both individual and Government have incomes and expenditures and trying to balance each other.

Differences

In spite of the above similarities there are however, there are glaring differences between them. The differences between the two kinds of finances are more remarkable than similarities in them and are discussed as follows;

1) Final goal (objective)

- Private interest (the greatest good for one number) that is the want and satisfaction of household and firm.
- Public collective or social interest (the greatest good for the greatest number) or deal with collective want and satisfaction.

2) Cost adjustment of income and expenditure

- Private start from revenue calculation; then expenditure.
- Public start from expenditure and then revenue.

3) Nature of resources

- Individuals have limited resources at their disposable while;
- Public has power to borrow from external, revenue can collect from tax, and from entire wealth of the community through force.

4) Motive of expenditure

- Private is the expenditure return is curtailed?
- Public profit and surplus is not a matter rather for max welfare in which financial return is uncertain.

5) Expenditure and welfare

- Private marginal utility of money spent on all goods more or less the same.
- Public spend income in such a way that welfare of community should be maximized.

6. Impact on the society/economy.

- Private has little impact on the economy
- Public can change the entire nature of the economy, unemployment, inflation, deflation and etc.

7. **Secrete and Publicity:** Private finance is secreting except for taxation while public finance is widely discussed and disclosed.
8. **Postponement of Expenditure:** In private finance, the individual can postpone or even avoid certain expenditure, as he likes. But in the case of public finance, the Government cannot avoid certain commitments kike social welfare measures and thus cannot postpone the certain expenses like relief measures, defense, etc.
9. **Influence on expenditure:** The expenditure pattern of private finance is influenced by various factors such as Customs, habits culture religion, business conditions etc. But the pattern of expenditure of public finance is influenced and controlled by the economic policy of the Government.
10. **Audit:** In the case of private finance, auditing of the financial transactions of the individuals is not always necessary. But the accounts of the public authorities are subject to audit and inspection.
11. **Coercion:** Under private finance the individuals and business units cannot use force to get their income. But, in public finance the governments can use force in the form of imposing taxes to get income i.e. taxes are compulsory in nature.
12. **Nature of Budget:** In private finance individuals prefer surplus budget as virtue and a deficit budget is undesirable to them but for the government budget surplus is undesirable by the government since it will result negative opinion for the government.

1.4 Significance of Public Finance

Justification for public finance in modern state is the need for public sector economy.

1. Failure of unregulated market economy: The pattern of consumption, production, distribution and resource allocation will be inconsistent with the social need due to
 - ✓ Existence of public goods and externality
 - ✓ Uncertainty.
 - ✓ Incomplete information.
 - ✓ Increase and return to scale in natural monopoly.
2. Produce or supply more goods as per capital income of the society increase, at least, public goods e.g road and straight line.

3. The larger complementarities between government and private sector in sphere of infrastructure and merit goods.

The importance of public finance could be view from the following angle.

1. **Taxation:** Taxation is a system of raising the government revenue through tax. When we say tax it is a compulsory contribution payable by an economic unit to a government without direct and equivalent return from the government for the contribution made. The governments often levy taxes to discourage the consumption of harmful commodities. Such as the consumption of cigarette, alcohol and other commodities that fall within that general category needs to be discouraged by introducing excise tax.
2. **Protection of Infant Industries:** If the infant and newly started firm or industries in developing nations are allowed to struggle with foreign firms especially from those technologically advanced countries, they may not survive due to many reason and factors. These industries need protection and government often levies duties in order to protect them.
3. **Provision Public Goods:** Governments provide public good, the government-financed items and services such as roads, military forces, lighthouses, and streetlights. Private Citizens even the wealthy ones would not voluntarily pay for these services, and therefore businesses have no incentive to produce them.
4. **Side Effects of a Market Economy:** Public finance also enables governments to correct or offset undesirable side effects of a market economy. These side effects are called spillovers or externalities. Example: households and industries may generate pollution and release it into the environment without considering the adverse effect pollution has on others. Pollution is a spillover because it affects people who are not responsible for it. To correct a spillover.

1.5 Economic Rationale of a Modern State

In modern state basically every government has at least three functions, defense of the country, maintenance of law and order and socio-economic development.

The government in a modern state provides the following services.

- ✓ Security both in internal and external.
- ✓ To control and regularize the economy.
- ✓ Justice or the settlement of disputes.
- ✓ The social and cultural welfare of the people through education, social welfare schemes.

- ✓ To make proper utilization of natural resource.
- ✓ The regulation of moral standards.
- ✓ The administration of the financial system, expenditure, revenues and fiscal control
- ✓ Proper and efficient administration.

1. Why government provides specific goods and services?

The reason is that due to market failure for this we have two options

- ✓ Under production due to positive externality
- ✓ Over production due to negative externality
- ✓ No production due to the presence of public goods

1) Allocative role: one assumption of market economy is well defined and enforceable property right, however some time there may be ambiguity in defining and enforcing property right which reduce tradability and marketability which reduce price and results underground or black market economy due to absence of well defined property right and hence government will play allocative role for common propriety resource, externality and market imperfections created market failure through;

- ✓ Government legislation or legal measure.
- ✓ Fiscal instrument
- ✓ Legal reform
- ✓ Creating market for pollutant
- ✓ Moral code and social sanctions
- ✓ Developing liability schemes
- To bring allocative efficiency when there is negative externality
 - ✓ Well defined property right
 - ✓ Per unit tax
 - ✓ Private bargaining
- To bring Allocative efficiency when there positive externality
 - ✓ Property right
 - ✓ Per unit subsidy
 - ✓ Private bargaining

2) Distributive role: it is the role of the government to provide distribution of income.

Initially there is inequality in income due to difference in individual capacity, inherited

and accumulated wealth, educational status etc. There source may be market imperfection hence to minimize the above problem the government may

- ✓ Progressive employee tax on rich and cash benefit for the poor.
- ✓ Progressive tax on goods and services consumed by the rich and subsidize the goods and services consumed by the poor.
- ✓ Provision at subsidy price

- 3) **Regulatory role:** regulation is important for society and for the government because it reduce cost of information for society, and for the government it help to protect public interest (selfishness and irrationality), to replace invisible hand of the government by divisible fist and to maximize welfare of the group .The instruments of regulation may be regulation of money demand and money supply, price, controlling commercial broad casting, standardizing product, control over biased advertising . The regulator satisfies the interest of the government and the public interest regulates the regulators. The efficiency of regulation depends on profit of the firm, implantation capacity and efficiency of the instrument, the presence of illegal evasion and fraud.
- 4) **Stabilizing role:** stabilization is necessary when there is inflation or deflation, inequality between aggregate demand and supply, inequality between money demand and money supply, inequality between saving and investment, inequality between expenditure and output. The instruments of stabilization may be fiscal policy instrument (tax and government expenditure) and monetary policy (income and interest rate).
- 5) **Merit goods:** even if the market is pareto efficient i.e. the competitive market will lead to undesirable distribution income and merit goods. The good that the government compels individuals to consume like elementary education and seat belt. Individual may not act in their own best interest. It is often argued that an individual perception of his own welfare may be unreliable criteria for making welfare judgment. The view that the government should intervene because it knows what is in the best interest of individuals better than they do them themselves is referred us paternalism.

Chapter Two

2 Welfare Economics and Public Finance

Chapter Objectives

Thus, after studying this chapter students will be able to:-

- Define what welfare economics is
- State the fundamental theorem of welfare economics along with the conditions needed to meet such a theorem
- Explain the weaknesses of the pareto efficiency criterion and thereby justify the role of the government intervention in the economy
- Express what market failure is and the sources of market failure
- Make a comparison between the fundamental theorem of economics and the role of government intervention in enhancing economic efficiency.

There are two mainstream approaches to welfare economics: the early neoclassical approach and the new welfare economics approach.

1. The early neoclassical approach was developed by Edgeworth, Sedgwick, Marshall, and Pigou. It assumes the following:

- Utility is cardinal, that is, scale-measurable by observation or judgment.
- Preferences are exogenously given and stable.
- Additional consumption provides smaller and smaller increases in utility (diminishing marginal utility).
- All individuals have interpersonally comparable utility functions (an assumption that Edgeworth avoided in his Mathematical 'Psychics'). With these assumptions, it is possible to construct a social welfare function simply by summing all the individual utility functions.

2. The New Welfare Economics approach is based on the work of Pareto, Hicks, and Kaldor.

- ✓ It explicitly recognizes the differences between the efficiency aspect of the discipline and the distribution aspect and treats them differently.
- ✓ Questions of efficiency are assessed with criteria such as Pareto efficiency and Kaldor-Hicks compensation tests
- ✓ While questions of income distribution are covered in social welfare function specification.

- ✓ Further, efficiency dispenses with cardinal measures of utility, replacing it with ordinal utility, which merely ranks commodity bundles (with an indifference-curve map, for example).

It is a branch of economics that uses microeconomic techniques to evaluate economic well-being, especially relative to competitive general equilibrium within an economy as to economic efficiency and the resulting income distribution associated with it. It can be seen as intermediate or advanced microeconomic theory. It analyzes social welfare, however measured, in terms of economic activities of the individuals that compose the theoretical society considered. Its results are applicable to macroeconomic issues. So welfare economics is somewhat of a bridge between the two branches of economics. Accordingly, individuals, with associated economic activities, are the basic units for aggregating to social welfare, whether of a group, a community, or a society, and there is no "social welfare" apart from the "welfare" associated with its individual units.

Application of Welfare Economics

- 1) **Cost-benefit analysis** is a specific application of welfare economics techniques, but excludes the income distribution aspects.
- 2) **Political science** also looks into the issue of social welfare (political science), but in a less quantitative manner.
- 3) **Human development theory** explores these issues also, and considers them fundamental to the development process itself.

2. Welfare Economics and Public Finance

Welfare economics is a branch of economics that focus on normative issues. The fundamental normative issues are

- 1) What should be produced?
- 2) How it should be produced?
- 3) For whom, and who should make these decision?

Under command (socialist) economic system in Eastern like, Soviet Union Cuba and North Korea, answered by central planning.

Today in most worlds the economic system is characterized by mixed economic system including western like USA and Ethiopia, with some decision made by the government but most left up to the myriad of the firm and the households. But there are many mixes.

How are we to evaluate the alternatives? Most economists embrace a criterion called Pareto efficiency. Named after the great Italian economist, sociologist, philosopher and statistician Vilfredo Pareto (1848-1923). Pareto optimality is the allocation of resource that no one can be made better off without making some one being made worse off. It implies efficiency.

Fundamental theorems of welfare

- 1) Every competitive economy is (satisfy other conditions), is Pareto efficient.
- 2) Every Pareto efficient allocation can be obtained through a competitive market process with an initial redistribution of wealth.

It implies every Pareto efficient allocation is attained by means of a decentralized market mechanism. In such case decision about type of production, method of production and distribution were answered by myriad of the firm and the household that make up of the economy.

2.1 The Efficiency of Competitive Markets

Efficiency is the condition that exists when society gets the most that it can from scarce resources.

Ideal Perfectly competitive market is contracted by drawing the following assumptions many firm and households, each has small market share and it has no effect on price, all firms and households have perfect information about the availability of the goods and the price which are being charged, no air or water pollution. Let us see why competition leads to economic efficiency with the traditional demand and supply curve.

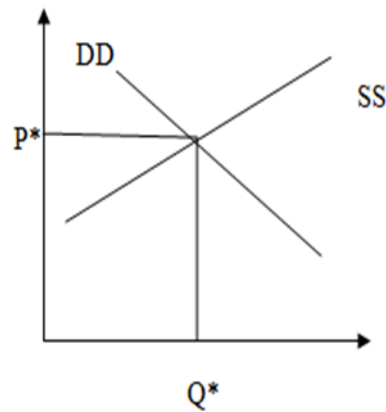
Individual Demand curve gives the amount of the good the individual is willing and able to demand at each price.

In deciding how much to demand equal marginal benefit to marginal cost, which is the price they have to pay.

Individual supply curve gives the amount of the good the individual is willing and able to supply at each price. In deciding how much to supply firm equates marginal benefit, which is the price equal to the marginal cost.

Then the efficiency for the single market is as follows;

Price



Quantity of the firm

At the market equilibrium, where supply equal to demand that is $MB=MC=P$ which is the requirement for economic efficiency ($MC=MB$). Additional benefit they receive from consuming with the marginal cost purchasing an extra unit.

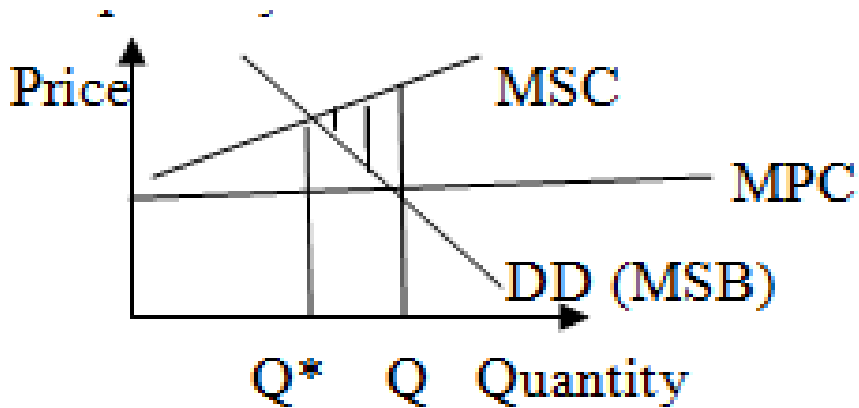
At any output such as Q^* , the last firms must yield consumers p^* exact utility. The supply curve for the competitive industry (SS) is the marginal cost of the firms. If every market in the economy is a perfect competitive free market, the resulting equilibrium through the economy will be pareto-efficient.

Away from p^* and Q^* , here is a divergence of between the marginal cost and the marginal benefit derived by the consumers so a move to that position make society better off but the distortion exist whenever society's marginal cost of producing a good does not equal society marginal benefit from consuming that good due to market failure, externality, imperfect competition.

A negative externality

Suppose DD represents the demand curve for a product which may be interpreted as marginal social benefit. MPC is the marginal private cost incurred by the firm in producing the good (assume constant for simplicity). The market clear where $MPC=DD$ at p and Q . If the firm causes pollution, it imposes costs on the society presented by marginal social cost. So the social optimal is where $DD(MSB)=MSC$ at Q^* .

Graphically

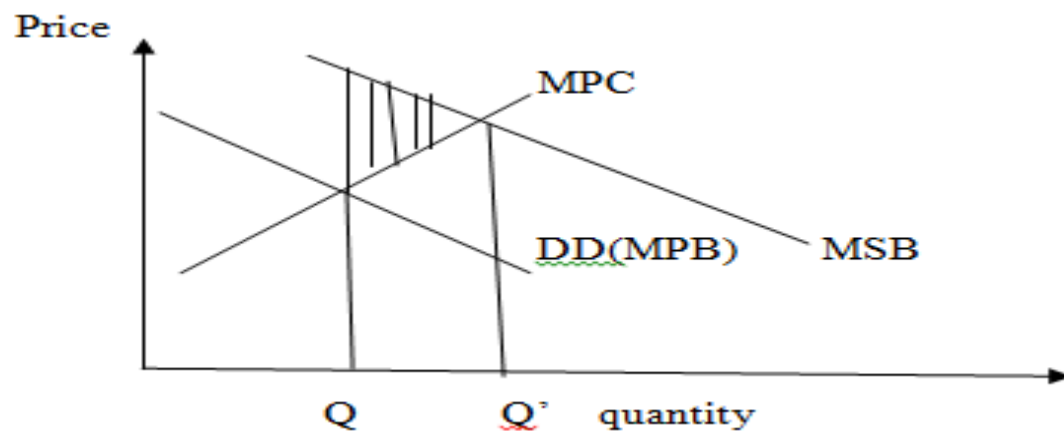


The overall welfare loss to the society from the market failure is given by the excess of MSC over MPC between Q^* and Q .

A positive externality

As a consequence of a consumption (positive) externality $MSB > MPB$, and the free market equilibrium provide the quantity Q . As compared with the social optimal at Q' , where $MSB = MSC$. The under lined area shows the welfare loss.

Graphically



Welfare economics is developed by the utilitarian. Welfare is a branch of economics which deals the evaluation of alternative economic situation from the society wellbeing.

Factors affecting welfare

- The size of the national dividend;
- The distribution of national dividend; and
- The variability of national dividend

Analyzing Economic efficiency

An allocation of resources is said to be efficient if it is not possible to make one or more persons better off without making at least one other person worse off (applying the Pareto criterion).

To develop deeper analysis efficiency goes beyond demand and supply just presented below.

Efficiency in allocation requires that three efficiency conditions (the three aspects of efficiency) are fulfilled:

- 1) **Efficiency in (exchange) consumption:** Whatever good is produced has to go to the individual who value them most. It concerns the distribution of goods.
- 2) **Efficiency in production:** Given the society resource, the production of one goods cannot be increased without decreasing the production another or producing at least cost.
- 3) **Product-mix efficiency:** The good produced corresponding to those desire by the individuals.

Pareto optimal: Pareto optimality is a measure of efficiency. Pareto optimality impossible to make any one better off without making someone else worse off by any of the following three means;

- ✓ Reallocation of goods among consumers.
- ✓ Reallocation of inputs among producers.
- ✓ Change in the composition of output. An allocation where the only way to make one person better off is to make another person worse off.

Vilfredo pareto proposed that welfare increases if some people gain and nobody loses. Welfare declines if some people lose and nobody gains. If some gain and some lose, the welfare change is ambiguous, no verdict. This partial ordering was later called the Pareto criterion.

- 1) **Efficiency in exchange or optimal allocation of commodity or Pareto optimality in exchange:** it is not impossible to increase the satisfaction of any person without reducing the satisfaction of someone else i.e. we cannot improve welfare of an individual without affecting the other. It can be achieved only when all the consumers have the same rate of marginal substitution between the same pair of goods. Given a particular set of available goods, exchange efficiency provides those goods are distributed so no one can be made better off without someone else being worse off. Thus exchange efficiency requires, there is no scope for trade that would make both party better off. It means exchange efficiency requires all individual have the same marginal rate of substitution (no room for a deal). To see how competitive economy full fill this conditions. Let us recall two basic concepts

Budget constraint: the amount of income consumer can spend on various goods. Its slope is the price ratio of the two goods. To spend more on one good, consumer should spend less on other good.

Indifference curve: the combination of goods among which an individual is indifferent or the same amount of total utility. The optimum of the consumer is attained at the point where the highest possible indifference curve is tangent to the feasible and attainable budget line.

Assumption

- ✓ Simple exchange economy: an economy with a fixed production (an economy without production).
- ✓ Two individual A and B in the society. A and B each possess a given amount of a given amount of both goods as their initial endowment.
- ✓ Two commodities X and Y, these commodities are available in a fixed amount.
- ✓ The only economic question to be answered is distribution (exchange).

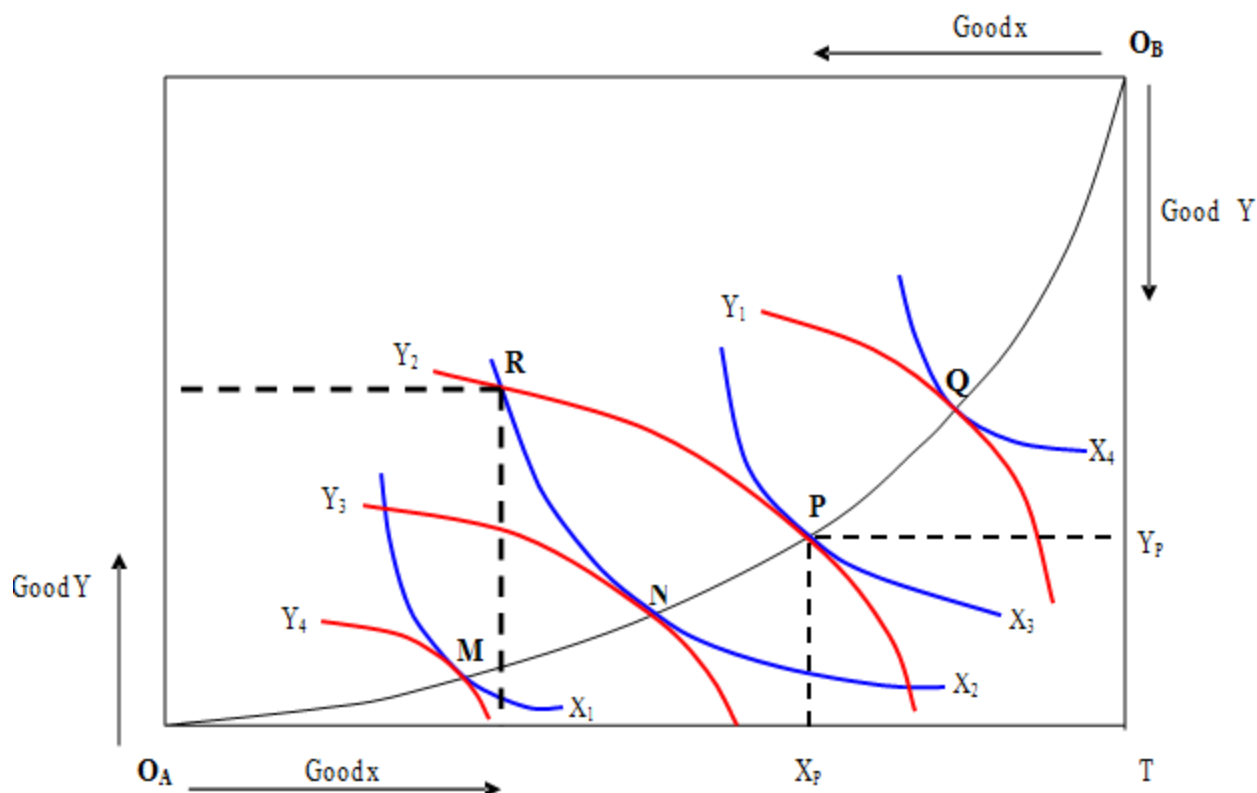
The exchange is voluntary both individual gain from exchange. Then pareto optimality can be shown by edge worth box as follows.

To construct the Edge worth box,

Let us see the origin of household A be **OA**, and the indifference curve for firm A would be X_1, X_2, X_3 and X_4 .

The origin household B be **OB**, and the indifference curve for firm B would be Y_1, Y_2, Y_3 and Y_4 .

Every point on the contract curve is pareto optimal and hence, the contract curve is pareto optimal point (MNPQ) i.e the contract curve is an optimal locus in the sense that if the trading partners are located at some point not on the curve, one or both can benefit, and neither suffer a loss, by exchanging goods so as to move to a point on the curve. It is the curves that join the locus of all tangency points of the indifference curves of the two individuals is called the contract curve of exchange. Along this curve the MRS_{xy} is the same for individuals A and B.



Pareto optimality in consumption

From the above graph pareto optimality or efficacy in exchange can be expressed as:

$$MRS_{xy}^A = MRS_{xy}^B = \frac{-\Delta y}{\Delta x}$$

Suppose that R in the above box is the initial distribution of commodity X and Y by individual A and B the individual A has X_p unit of X and Y_p unit of Y. Given the indifference curve for O_A for A and O_B for B. consumer A wellbeing is enhanced by moving to the origin of consumer B and vice versa.

The initial endowment put consumer A at indifference curve X_2 and consumer B indifference curve at Y_2 at point R the MRS_{xy} for consumer A is greater than MRS_{xy} for consumer B hence A will scarify more Y to get a unit of X and B will scarify more unit of X to get a unit of Y .such situation leads to exchange. From the point R A will trade some Y to B receiving X for exchange .The exact barging reached by the two consumers cannot be determined. If A is skill full negotiator A may induce B to move along Y_2 from point R to point P while A move from indifferent curve X_2 to X_3 . Thus, individual A receives all the gain from exchange while B gain or loss nothing and if consumer B is skill full negotiator, the reverse will happened. At point P

X_3 and Y_2 and B move from R to P both can gain from exchange, thus starting from point R, both individual can gain through exchange by getting to point on the line N and P.

The curve that joins the locus of all tangency point on the indifference curve of the two individual is called the contract curve. Along the contract curve MRS_{xy} is the same for both consumers and the economy is in general equilibrium of exchange.

2) **General equilibrium in production or Efficiency production (optimal allocation of factor or resource)**: it is impossible to increase the output of one commodity, without by re-allocating factors without decreasing the production of other. It can be achieved only when all the consumers have the same rate of marginal substitution technical substitution between the same pair of goods. Let us assume

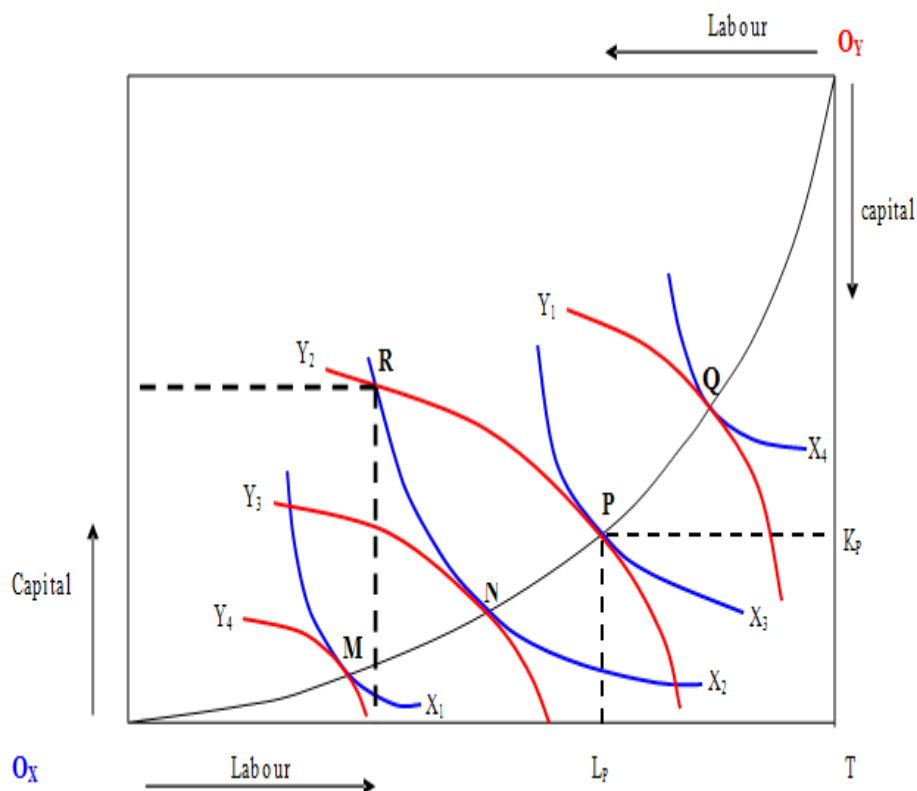
- ✓ Two individual producers A and B.
- ✓ Two input L and K.
- ✓ The only economic question to be answered is production.

To analyze production efficiency we look the concept;

Production possibility curve (PPC) or production possibility frontier (PPF): If the economy is productive inefficiency, it can produce more of one good without reducing the production of other goods. Along the production possibility frontier, the economy cannot produce more of one good, without giving up some of other goods given a fixed set of resource.

Iso -cost line: Giving the different combinations of inputs that cost the firm the same amount. The slope of Iso cost line is the price ration of the two factors.

It requires factors are so allocated in such a way that; $MRTX_{sLK} = MRT^Y_{sLK}$



Transferring some units of a good from a person who derives a lower utility to a higher utility.

The pareto optimal allocation of commodities can be illustrated by the Edgeworth box.

Isoquant of firm A is convex to the origin OA and isoquant of firm B is convex to OB.

The initial endowment puts firm A at isoquant L_2 and firm B at isoquant K_2 at point R. The MRTSLK for firm A is greater than the MRTSLK for firm B. Hence A will sacrifice more K to get a unit of L and B will sacrifice more units of L to get a unit of K. Such a situation leads to production. From point R, A will trade some K to B, receiving L for production. The exact bargaining reached by the two firms cannot be determined. If A is a skillful negotiator, A may induce B to move along K_2 from point R to point P while A moves from isoquant L_2 to L_3 . Thus, firm A receives all the gain from production while B gains or loses nothing, and if firm B is a skillful negotiator, the reverse will happen. At point P, L_3 and K_2 , and B moves from R to P; both can gain from production. Thus, starting from point R, both firms can gain through production by getting to point on the line N and P.

The curve that joins the locus of all tangency points on the isoquants of the two firms is called the contract curve. Along the contract curve, MRTSLK is the same for both firms, and the economy is in general equilibrium of production. The contract curve shows efficient

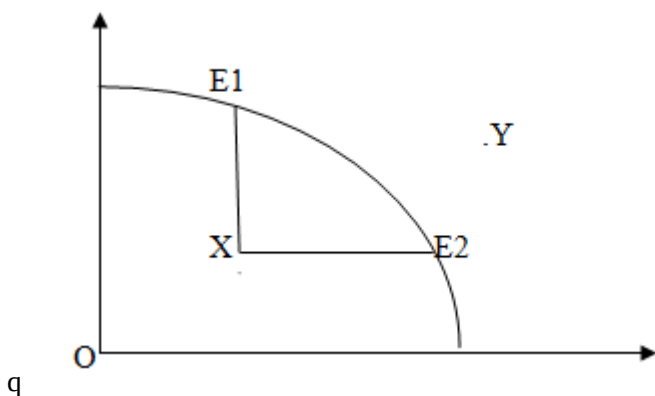
allocation of commodities (pareto optimal allocation). Along the contract curve marginal rate of substitution is equal along the contract curve.

The general equilibrium of production yields a contract curve that represents the locus of point in the input space. The contract curve shows the optimal output of each goods corresponding to every possible allocation of labor and capital between good X and Y. Now we derive the production possibility curve(PPC) from the contact curve. For this purpose, we construct a graph whose coordinate axis show the quantity of good X and good Y and plot the out pairs corresponding to each isoquant tangency.

It reveals the transformation of the contract curve from the input space into an output space. Thus PPC is the transformation curve.

A production possibility curve (PPC) shows us all possible combinations of production quantities of multiple products. The production quantities represent maximum possible output and are based on full and efficient use of currently available resources and of the current production technology. PPC is concave to the origin .its slope negative which is measured by marginal rate of product transformation (MRPT_{xy})

$$\text{MRPT}_{xy} = \frac{\text{the amount of Y sacrificed}}{\text{the amount of X obtained}} = \frac{\text{MCX}}{\text{MCY}}$$



Under perfect competition, a profit maximizing firm produces its output at which $P=MC$, This means that $MCX=PX$ and $MCY=PY$.Thus under perfect competition

$$\text{MRPT}_{XY} = \frac{\text{MCX}}{\text{MCY}} = \frac{PX}{PY} \text{ shows the general equilibrium in production .}$$

3. Perfect Competition and General Economic Efficiency

General equilibrium in two inputs, two output case

Assumption

- Two individual producers A and B.

- Two input L and K.
- The only economic question to be answered is production.
- Two individual A and B in the society. A and B each possess a given amount of a given amount of both goods as their initial endowment
- Two commodities X and Y, these commodities are available in a fixed amount.
- Assume perfect information among sellers and buyers of a product
- Given state of information about technology.

Under general equilibrium analysis the three marginal condition of pareto optimality in welfare maximization are;

- 1) Pareto optimality in exchange
- 2) Pareto optimality in production
- 3) Pareto optimality in product- mix or composite of output.

At equilibrium $MRS^A_{xy} = MRS^B_{xy} = MRTS^X_{LK} = MRTS^Y_{LK} = -\frac{\Delta y}{\Delta x} = -\frac{\Delta K}{\Delta L}$ Pareto optimality in welfare maximization.

3.2 Market Failure, Externalities and Public Goods

The notion of market failure basically emanates from transaction cost. This are the cost of transportation ,decision cost ,information cost ,bargain cost and legal contract enforcement cost in the presence of market failure is the rational for many government a activates . There are six important conditions under which market is not pareto efficiency. These are referred as market failure, and they provide rational for government activity. They can be taken as causes of market failure.

- 1) **Failure of competition (imperfect competition):** when there is relatively few firm (beer and cement, cigarette industry in Ethiopia), single seller supply the market, many firm producing slightly differentiated product like hotel service in Ethiopia . For such cases the competition is limited economies of scale or declining the average cost as a firm produce more which allow a large firm competitive over small firms. Additionally, imperfect information, high transportation, government activates like paten right, copy right, trade mark and government franchise etc., special knowledge of production technique by the firm, natural resource endowment leads to imperfect competition , which leads to economic inefficiency. Under imperfect completion, firm sets the extra revenue they obtain from selling one unit more

marginal revenue equals marginal cost ($MR=MC$). With a downward sloping demand curve, the marginal revenue has two components. When a firm sells an extra unit, it receives the price of the unit, but to sell an extra unit it must lower the price it charges on that and on the previous unit –the demand curve is downward sloping. The revenue gained from selling the extra unit is its price minus the revenue forgone because the expansion in sales lowers the price on all units.

In the graph below, p = price level, P_M = price of monopoly, P_C = price of perfectly competitive, DD_M = demand curve for monopoly, DD_C = demand curve for perfectly competitive, Q_M = quantity of monopoly, and Q_C = quantity of perfectly competitive

Graphically

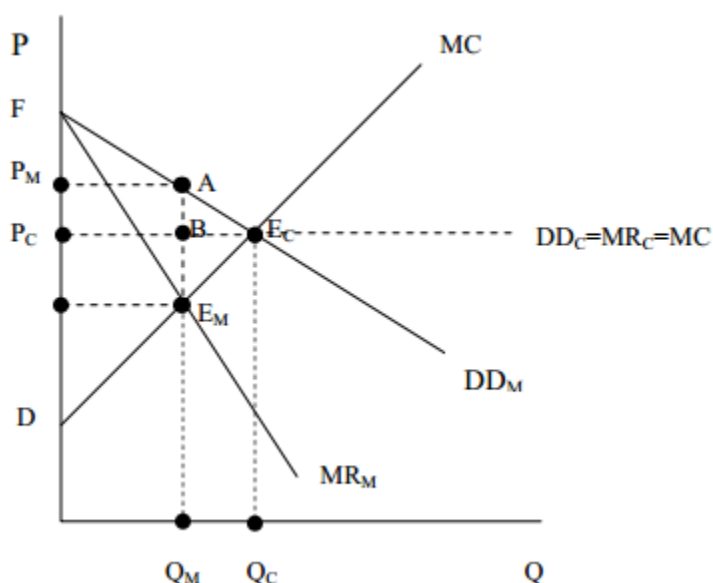


Figure 1. Dead weight loss (social cost) i.e. triangle area AEMECA to the society under monopoly market structure.

In the above graph the competitive equilibrium occurs at Q_C , while the imperfect competitive equilibrium occurs at Q_M , a much lower level of output. This reduction in output is the inefficiency associated with imperfect competition. Of course, if there is natural monopoly with a declining average cost and with marginal cost below average cost, competition is not viable, if a firm charges price equal to marginal cost, it would operate at a loss since marginal cost is lower than average costs. Even then however, a private monopoly typically charges more than a government

run monopoly, the private monopoly seeks to maximize profit but the government monopoly which did not seek any subsidy and would only seek break even.

2) **Externality:** Externality is a side effect of an action which affects the well-being of 3rd party.

1) **Negative externality:** If it has adverse effect on the 3rd party it negative externality (External diseconomy). It is an instance where one individual action imposes a cost on other.

Private sector equilibrium: $MB=MC \Rightarrow P=MC$

Social equilibrium: $MSB=MC+MEC$

$$MEC+MC=P$$

$$MSC=P, P<MC.$$

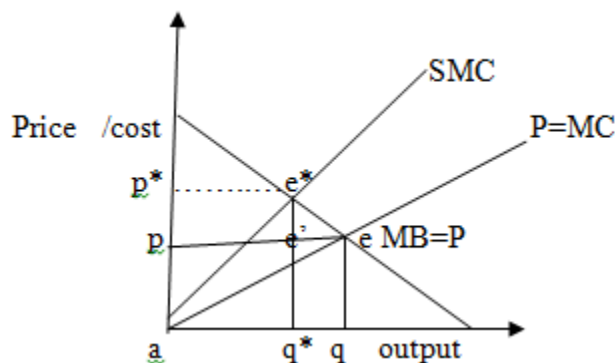
$MC>P$ since MEC is added to MPC and hence pareto optimality failed. It leads to deviation of private cost deviate from social. Let us see the detail as follows ;

A) A.C pious

Assume:

- ✓ Competitive market.
- ✓ An industry produce output and emitting pollution
- ✓ Per unit pollution is constant.
- ✓ The cost of pollution is born by others.

Given the above assumptions the best allocative solution for negative externality is **per unit tax**.



Private actual equilibrium: $PMC=PMB$

$P=q$ at point e.

Social equilibrium: $SMC=MB$

$P^*=q^*$ at e^* here price is higher and output is lower. There is a cost from the society. So there is over production .However the firm is actually production of at q which is over production a

distance from q to q^* . It is greater than the society demand. So as to internal the cost of pollution the society choice higher price and lower output.

Social welfare = consumer surplus + producer surplus

At $e = a_{pe} + p_{ed} - a_{ec}$

Welfare (W) = a_{ed}

To reduce a dead weight loss, imposing $e^* - e'$ amount of per unit tax which rise price of goods and reduce output of the firm from q to q^* .

Consumer surplus is the difference between consumers is willing to buy and actual buying price.

Then the firm produce at e^* .

B) Coase theorem:

Assumption

- ✓ Initially provide well defined property right
- ✓ minimize zero transaction cost
- ✓ small group of individuals

The best solution is private bargaining, in case where assignment of property right is well defined the government should disseminate environmental information i.e the government should teach the society.

C) Baumol and oates , they criticize coase theorem due to their limitation . They supported pigious solution (per unit tax) they have three alternatives.

- i. Per unit tax is marginal social damage, if we can measure social damage.
- ii. Per unit tax is marginal abutment cost (cost required to measure marginal social cost . if we are unable to measure social damage cost .
- iii. Regulating and standards.

To summarize the allocative role of the government for negative externalities

- ✓ Property right
- ✓ Per unit tax
- ✓ Private bargaining

The summarized policy prescription for negative externality

- ✓ Fiscal policy like imposing per unit tax
- ✓ Private barging
- ✓ Well Defining property right and enforcing contract

- ✓ Creating market for pollutant
- ✓ Moral code and social sanctions
- ✓ Developing liability schemes

2) Positive externality: If it has a positive effect on the 3rd party it negative externality (External economy). It is an instance where one individual's actions confer a benefit on other.

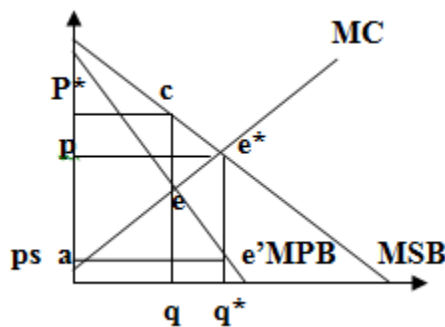
Private sector economy: $MB=MC$,

$$P=MC$$

Social equilibrium: $MSB=MC$

$$MEB+P=MC$$

$MEB+P>MC$ leads to inefficiency. There for since MEB is added to price and hence paretooptimality failed. Let us the detail as follows;



Private equilibrium

$MPB=MC$ at p and q at e

Social equilibrium

$MSB=MC =P^*$ and $q^*=e^*$

Actual production takes place at p and q , there is a deficit of social welfare

The summarized police prescription for positive externality

- ✓ Government legislation or legal measure.
- ✓ Fiscal instrument like per unit subsidy
- ✓ Legal reform
- ✓ Private bargaining

- 3) **Public goods:** These are some goods which are either will not be supplied by the market or, if supplied, will be supplied in sufficient quantity e.g. national defense, lighthouse. It is one type of common property resource

Characteristics of common property resource;

- ✓ Collectively owned i.e. non-excludable
- ✓ Equal right
- ✓ Difficulty to assign property right
- ✓ They are indivisible (unequal distribution may exist) give the above characteristic what type of economic behavior will emerge? It is answered by David Home (pre-classical economic thought). He classified these goods in two

A) **Free goods:** They are goods without opportunity cost.

There is conflict between short run and long run utility maximization, unregulated self-interest behavior of individual, indivisibility and large number of consumers, therefore he answers individual will utilize common property up to the point of $MU=P$ unfortunately price of common property resource is zero so MU is zero and hence, over utilization of (depletion of resource will be created due to irrationality, selfish behavior and unregulated self-interest behavior of individual. This known as tragedy of the common and hence, the government play an allocative role in common property resource can regulate individual behavior by creating awareness programme, distributing across individual and time.

B) **Pure public goods:** It is viewed as the extreme case of externality. pure public goods have two critical properties

- i. **Non-excludable:** person as consumption is not affected by person B's or others consuming the same product that is to mean generally difficult or impossible to exclude individual from enjoyment of public goods. Non-rival in consumption benefits of these goods accrue collectively to the society.
- ii. **Zero marginal cost of production** i.e. zero marginal cost for additional individual enjoying the goods. e.g. straight light. Therefore it would be inefficient to apply exclusion even if this could readily be done. Because the derived benefit by individual A from the consumption of the service does not hurt B and the additional cost is zero. The market, which works on the principle of price, will be inefficient for such goods and hence the government can play

allocative role for public goods provision through private voluntary arrangement and providing through public budget.

C) **Mixed goods:** It is a half way between private and public goods. There is a problem of externality for private (excludable and rival) goods.

- ✓ If positive externality is realized Social marginal benefit is greater than private marginal benefit which leads to under production.
- ✓ If negative externality is realized social marginal cost is greater than private marginal cost which leads to over production.

Then the government play allocative role by providing per unit subsidy and self-supply by the government when there is problem inefficacy resulted from of positive externality and for inefficiency created due to negative externality by realizing property right, reducing transaction cost.

4) **Incomplete market:** it is a market failure created, whenever private market fails to provide goods and services even though the cost of producing it is less than what individual are willing to pay. Some economists believe that the private markets have done a particular poor job for insurance (like health, life, crop insurance, flood insurance, fire insurance), and loan, and that this provides a rational for government activity in these areas.

5) **Information failure (imperfect information):** The private market often provides an inadequate supply of information, just as it supplies an inadequate amount of other public goods. Resource devoted to research and development can be thought of us a particular important category of expenditure on information E.g. many of problem in health sector

6) **Unemployment , and other macroeconomic disturbances**

Most economists take that high unemployment is a prima facie evidence that something is not working well in the market. To some economists high unemployment is most dramatic and most convincing evidence for market failure. The above six causes of market failure are interrelated.

Chapter Three

3 Public Revenue

3.2 Sources of Public Income

Chapter Objectives

Thus, after studying this chapter you will be able to:-

- Enumerate the different sources of public income and their sub-categories
- Understand the nature of ratio, buoyancy and elasticity of taxation
- Realize the different principles of taxation including their strength and weaknesses. As well as you can make a comparison among the different principles
- State the rate schedules of taxation, the superiority of one over the other, merits and demerits of each tax rate schedule
- Compare and contrast between direct and indirect taxes
- Recognize the distinction between impact of a tax, shifting of tax and incidence of a tax

The government gets income from taxes and from other sources in which there is an element of compulsion. Secondly, the government gets income for services rendered to the public. These may be fees or prices of services rendered or profits of enterprises, and so on. Thirdly, there are certain sources of income which may not come under any of the above two types - they are not compulsory, nor are they voluntary payments. It is interesting to observe that the distinctions between the various kinds of public income are not clear-cut and they shade gradually into one another.

3.1.1 Income based on Compulsion

There are four different sources of income for the government which are based on compulsion. These are:

- (a) Taxes of various types;
- (b) Fines for offences committed;
- (c) Compulsory loans; and
- (d) Tributes and indemnities arising out of war or from other reasons.

A **tax** is a compulsory charge imposed by the government, without any reference to the service

rendered to a taxpayer. In other words, a tax is a compulsory contribution for which there is no direct return or quid pro quo.

It is compulsory in the sense that once it is levied, the person concerned has to pay it and cannot escape it (though he may try to avoid or evade the tax). Most of the sources of income of the government these days come from taxes.

Fines or penalties imposed by courts of justice resemble each other since there is compulsion in both. The distinction between them, however, is one of motive. While taxes are generally imposed to obtain revenue, fines are imposed as a form of punishment for mistakes committed or to prevent people from making mistakes in the future. However, fines may be of the nature of tax. For instance, if a penalty of Birr 100 is imposed on a car owner every time he exceeds a speed limit of, say, 60 kilometers within city limits and if this amount is regularly collected, it may be regarded as a tax on speed, similar to a tax on petrol. On the other hand, if the fine is imposed only if there is excessive speed and it is raised for successive infringements and if finally, the driver's license is cancelled for continuous violation, the fine may be regarded as a penalty for an offence and not a tax on speed.

In the case of customs duties, the concepts of compulsion and penalty gradually merge with each other. A customs duty may be imposed on an imported article for two reasons: (a) to raise revenue and, accordingly, if a higher rate of customs duty is followed by increased revenue, the duty is a tax, and (b) if the purpose of raising the rate of a particular duty is to restrict imports or, to prohibit imports altogether, then a rise in the rate of a particular duty should be followed by a reduction in imports and in revenue. In this case, the duty is of the nature of a penalty for imports.

3.1.2 Income by way of Voluntary Payment

There are certain sources of income for public authorities which are mostly of the nature of prices. These sources are:

- (a) **Income from public property** such as lease of lands owned by the government;
- (b) **Receipts from government enterprises which do not have monopoly power** or which do not exercise their monopoly power;
- (c) **Fees for services rendered by the government**, such as registration of births and deaths, etc.; and
- (d) **Receipts from voluntary public loans**

In all these cases there is no compulsion involved. The government is providing certain services and charging certain prices for the same; all those who make use of these services pay for them. In some cases, the price charged may be much lower than the cost of the service provided. A good example is the price charged for postcards and letters. Profits from government enterprises which do not charge monopoly prices are also of a voluntary type.

3.1.3 Sources of Income, Partly Compulsory and Partly Voluntary

Dr. Dalton mentions four different sources of income which do not fall completely under the first type or the second type. These sources are partly of the nature of taxes and, therefore, contain an element of compulsion and partly of the nature of price and, therefore, they are voluntary in character. These sources are:

- (a) Income from public enterprises using monopoly power to raise their prices above the competitive level;
- (b) Betterment levy and other special assessment:
- (c) Income from the use of the printing press or through the issue of new paper money to cover the deficit in public expenditure; and
- (d) Voluntary gifts

3.2 The Ratio, Buoyancy and Elasticity of Taxation

3.2.1 Tax Ratio

The concept of tax ratio is very important in that it gives us an idea about the country's many aspects of economy. From the knowledge of tax ratio, one can quickly guess the economic strength of the country, taxable capacity of the nation, level of living of the people and the extent of growth structure in tax-potentiality-related sectors of the economy. The ratio of tax revenues to Gross National Product is called the tax ratio. Thus, it is the percentage of GNP, which comes to the public exchequer as tax revenue.

Since the tax ratio is related to the economic conditions of society, it is high in the developed countries and low in poor countries. The main determinants of tax ratio are the per capita income, living standard of the people, industrial and agricultural development, and composition of tax structure and efficiency of tax collecting machinery. Most of these factors are at low level in the developing countries and, hence, low are their tax ratios. It is important to note that economic development is both the cause and the effect of a high tax ratio. Larger amounts of tax revenue will be possible only when economy is developed; but the development of economy

itself is largely financed by tax revenues which will grow when tax ratio is high.

3.2.2 The Base of a Tax

The base of a tax is the legal description of the object with reference to which the tax applies. For example, the base of an excise duty is the production or packing or processing of a specific good; the base of an income-tax is the income of the assessee defined and estimated in terms of certain rules laid down for the purpose; a gift may be defined and made a base for levying a gift-tax. Note that the base of each tax has to be defined legally and it is to be quantified for the purpose of determining the tax liability of an individual tax-payer. Each tax-payer is considered a legal entity for this purpose. Accordingly, an individual legal entity may be subjected to more than one tax. It should be noted that a tax base may have a time dimension also. For example, income-tax is usually on an annual basis and the law has to decide whether income would be taxed on the basis of accrual or receipt. The authorities, while determining a tax base, are expected to give due consideration to various questions like those of cost of collection, administration and effects of that tax. The exact coverage of a tax base is sought to be determined by an optimum combination of these considerations. With the passage of time, a tax base under consideration may grow or may shrink. For example, as production of excisable goods increases, the base of excise duties would be termed to have grown. Also, by law, new items may be brought under particular taxation, or the relevant provisions, definitions and rules etc. may be changed to extend the coverage or base of a tax. Thus, if new items are brought under excise duties, we shall say that the coverage of excise taxation has been extended and the base of excise taxation has been widened.

3.2.3 Buoyancy and Elasticity of a Tax

These terms denote the factors responsible for an increase in the yield of a tax over time. If tax revenue increases with the growth of its base, but without an extension of the tax coverage or an upward revision of the tax rates, then the tax is said to be buoyant. It has an inherent tendency to yield more tax revenue with the growth of the base. Thus, for example with given rates of income-tax and the definition of taxable income, if yield from income-tax increases as national income increases, it would be termed a buoyant tax. Similarly, excise duties are levied on production of specified goods. If new items are not brought under these duties and the rates of existing duties remain unchanged, but the revenue from excise duties increases with an increase in the production of excisable items, we have a case of buoyancy of excise duties. It is clear that

the concept of buoyancy may be applied to an individual tax or to a whole set of taxes. Numerically, the buoyancy of a tax is measured as a ratio of the proportionate increase in tax revenue to a proportionate increase in the tax base.

The yield of a tax may also go up on account of extension of its coverage or a revision of its rates. Such a characteristic of a tax is referred to as its elasticity. In other words, elasticity of a tax refers to its responsiveness to steps taken by authorities in increasing its yield through an extension of its coverage or revision of its rates. Numerically, the elasticity of a tax is measured by the ratio of proportionate change in its yield to the proportionate change in its coverage or rates.

3.3. Adam Smith's Canon of Taxation

The four canons of taxation as prescribed by Adam Smith are the following:

- 1. Canon of Equality:** "The subjects of every state ought to contribute towards the support of the government, as nearly as possible, in proportion to their respective abilities; that is, in proportion to the revenue which they respectively enjoy under the protection of the State." This canon tries to observe the objective of economic justice. It dictates that in absolute terms the richer should pay more taxes because without the protection of the State they could not have earned and enjoyed that extra income. If we interpret this principle in terms of disutility, which the tax payers suffer from by paying the taxes, it follows that the tax should impose equal marginal disutility upon every tax-payer. Two possibilities emerge in this case. If incomes are subject to constant marginal utility, then both the rich and the poor should be subjected to proportional taxation - each person paying a given percentage of his income as tax. On the other hand, if we agree with the more realistic proposition that income is subject to diminishing marginal utility, then the richer should pay a larger proportion of their incomes as taxes (that is the taxes should be progressive).
- 2. Canon of Certainty:** This canon is meant to protect the tax payers from unnecessary harassment by the 'tax officials.' "The tax which each individual is bound to pay ought to be certain, and not arbitrary. The time of payment, the manner of payment, the quantity to be paid, ought all to be clear and plain to the contributor, and to every other person." The tax-payers should not be subject to arbitrariness and discretion of the tax officials, in which case there will be a scope for a corrupt tax administration. Adam Smith points out that if a scope for arbitrariness exists, then under such circumstances even an honest tax machinery will be

unpopular. He is so emphatic about this principle as to claim “that a very considerable degree of inequality... is not near so great an evil as a very small degree of uncertainty.”

3. Canon of Convenience: The mode and timing of tax payment should be, so far as possible, convenient to the tax-payer. This canon recommends that unnecessary trouble to the tax-payer should be avoided. Otherwise various ill-effects may result.

4. Canon of Economy: Every tax has a cost of collection. It is important that the cost of collection should be the minimum possible. It will be useless to impose taxes which are too widespread and difficult to administer. These taxes entail an unnecessary burden upon the society in the form of additional administrative expense. The productive efforts of the people suffer due to a wasteful use of its resources on the salaries of the officials. Realizing that the tax collections are being wasted, the tax payers are likely to evade them. These canons of taxation have a sound philosophy behind them and exhibit an insight into the practical experience of tax administration and its effects. However, in view of the widespread recognition of other objectives of the economic philosophy and problems of a modern state, a few additional principles were also suggested by later writers. A brief description of these is as follows:

5. Canon of Productivity: It is also called the canon of fiscal adequacy. According to this principle the tax system should be able to yield enough revenue for the treasury and the government should not be forced to resort to deficit financing.

6. Canon of Buoyancy: The tax revenue should have an inherent tendency to increase along with an increase in national income, even if the rates and coverage of taxes are not revised.

7. Canon of Flexibility: It should be possible for the authorities without undue delay, to revise the tax structure, both with respect to its coverage and rates, to suit the changing requirements of the economy and of the treasury.

8. Canon of Simplicity: The tax system should not be too complicated. That makes it difficult to administer and understand and breeds problems of differences in interpretation and legal disputes.

9. Canon of Diversity: It would not be a happy situation if the state depends upon too few a source of public revenue. Such a system is bound to breed a lot of uncertainty for the treasury. It is also likely to be inequitable as between different sections of the society. On the other hand, if the tax revenue comes from diversified sources, then any reduction in tax revenue on account of any one cause is bound to be very small. However, too much multiplicity of taxes is also to be

avoided. That leads to unnecessary cost of collection and violates the canon of economy.

3.4. Features of Sound Taxation

This is known as characteristics of good tax system.

3.4.1 Equity in the Distribution of Tax Burden

From the earliest times, equity or justice in taxation has been a universally accepted goal of taxation. There are two aspects to the problem of equity. The first is the proper treatment of persons in like circumstances. The rule in this case is “equal treatment of equals”. All those persons who are placed in similar circumstances should bear the same amount of burden of taxation. The second aspect of equity in taxation is the desirable relative treatment of persons in unlike circumstances. That is, those who are better off should pay more taxes and thus should bear a greater burden of taxation. Though there is general agreement on these points, there is considerable difference of opinion among economists and statesmen on the realization of equity in practice.

3.4.2 Productivity

The second element of sound tax system is productivity. The basic purpose of taxation is to get revenue, though it can have both regulatory and non-revenue uses. As the needs of the public authorities increase continually, the tax system should yield increased revenues. Experience in the last few decades both in advanced as well as developing countries indicates greater need for resources to meet the demands of expanding public programs. There has been continuous pressure on the available revenue sources and there is every indication that this pressure will continue.

Tax productivity does not mean simply revenue returns. Adequacy, regularity and flexibility are important aspects of tax productivity. A sound tax system should ensure adequate and regular tax returns to meet the requirements of the economy. The returns should also be flexible. But productivity is only a relative concept, for there may be times during a depression when stability of tax revenues will be possible only at the expense of unduly burdensome effects upon the taxpayer and a heightening of general deflationary effects.

3.4.3 Rights of Taxpayers

A sound tax system will have to safeguard the interests of the taxpayers. In a democratic setup

the rights of taxpayers have to be continuously kept in mind. Besides, the present level of taxation as well as future prospects necessitate that the interests and rights of taxpayers should be given adequate recognition. Apart from the inherent rights of the taxpayers who support government functions, high taxpayer morale is essential for the effective administration of tax laws. **An intelligent concern with the taxpayer's problems will require the public authorities to:**

- a. Make efforts to broaden his understanding of particular tax measures;
- b. reduce to the minimum the inconvenience and interference associated with tax payment and collection; and
- c. Provide for promote and fair treatment of his complaints

3.4.4 The Tax System and the Economy

Fourthly, a sound tax system should be so devised that it should fulfill certain basic requirements or objectives of an economy. Since 1930's special attention has been given to the problems of controlling economic fluctuations, maintaining full employment, preventing tendencies towards secular stagnation and controlling inflation during wars or defense emergencies. While full employment and economic stability are important objectives of public policy in an advanced economy, economic growth is significant in backward and underdeveloped economy.

3.5. The Benefit Principle of Taxation

In the benefit principle of taxation, therefore, relationship between tax payer and the government is seen as one of exchange in which tax is considered as a price to be paid for the benefit received and, hence, the rules of public household should be more or less like the rules that govern exchange of goods in the private market. As 'quid-pro-quo terms' settle the transactions between buyer and the seller under market mechanism of exchange, so also a tax is paid against the benefit received from government. Thus, a tax on petrol, for example, may be paid by motor vehicle owners against the benefit of motor way road facilities they receive from government.

What it follows is that the optimal supply of social goods should be determined at a point where it is equal to the amount demanded by the tax payers. Just as a producer under market competition equalizes the total cost of production with total sale proceeds, so also the aggregate amount of tax revenue should cover the cost of supplying social goods by the government.

Again, just as a private buyer pays the price which represents marginal utility of commodity to him, so also the amount of tax which a person ought to pay should measure the benefit he receives from social goods and services.

Thus, the benefit principle of taxation follows that larger the benefit, larger should be the contribution of tax payer. This fact, it is important to note, raises a controversial question as to whether tax should be proportional, progressive or regressive in character.

Cost of service and value of service: The benefit theory of taxation may be interpreted in two ways, viz., the ‘cost of service principle’ and the ‘value of service principle’. According to the former, the contribution of tax payer should be equal to the cost of supplying public services that benefit him. The principle can be applied to certain areas of public services like posts and telegraphs, electricity, transport, etc. where the payment is directly linked to benefits received. But it cannot be applied to those services where the expenses of production are met from the tax revenues of government. Such public services include those like police, defense, justice, public parks, etc. where the cost of rendering services to the tax payers cannot be determined. In such cases, taxation should be guided by the value of service principle which requires that the incidence of tax should be in accordance with the worth of public services to the tax payer. Since the value of service also depends on the cost of producing it, the two principles are not essentially different from each other. They are rather two ways of expressing the same benefit approach to taxation.

The benefit theory of taxation is hailed by its exponents on the ground of justice or equity. Justice demands that a payment should be made only against some benefits received whether from the public sector or from private sector. Hence, the benefit theory conforms not only to justice but also to equity so that the tax payers do not have to suffer from a sentiment of deprivation.

3.5.1 Merits of Benefit Principle

The basic merit of the benefit approach is that it is based on the assumption that the benefits conferred by public services justify the imposition of taxes to pay for them. Secondly, the benefit approach combines both the income and expenditure sides of the budget processes and thus determines simultaneously both the public service as well as tax shares. Public services involve the withdrawal of funds from private use. The benefits derived from public services

must at least be equal to the losses that result as other wants go unsatisfied. It is in this sense that the revenue and expenditure should go together. Thirdly, benefit taxation is applicable to those cases where the benefit received by the individuals can be measured. Examples are: petrol tax on the users of roads, local property taxes to finance police, fire protection and sewage services and special assessments to finance local public works. In spite of these merits, the drawbacks of the benefit approach are far too many.

3.5.2 Demerits of Benefit Principle

(i) The benefit approach is based on the assumption that varied and complex activities of government can and should be calculated and assessed against each person on the basis of the individual benefit derived. This assumption is highly unrealistic and does not recognize the serious theoretical and practical difficulties.

(ii) The benefit approach was developed in earlier days based on the peculiar relationship between the State and the individual. This relationship was the quid pro quo basis of exchange or simply price exchange. The government was said to provide certain services and the individual was expected to pay for them. This was similar to the satisfaction of private wants. Whatever its validity in the past, such a basis of exchange does not exist between the State and the individuals with respect to most public services. These days, the State provides certain services for the general welfare and not for individual welfare. The State provides, for instance, for national defense, police, etc. It is easy to calculate the total expenses of the government but it is difficult to estimate the services which individuals may derive from them.

(iii) In recent years, governments have entered into the welfare field attempting to provide all sorts of services with the object of increasing the welfare of the general mass of the community. This has rendered impossible any general use of the benefit principle.

(iv) As benefits accrue to the community as a whole, taxation also should be taken as a collective instrument for supporting the services of the government.

(v) Benefit approach, if applied blindly, will lead to great injustice rather than bring about justice in taxation. For instance, the benefit derived by a pensioner is definite and clear enough but the benefit principle will expect the old-age pensioner to pay it back to the government treasury by way of taxes. This is what precisely the benefit approach tells us: everyone should pay to the government according to the benefits received by him from the government. In the case of the pensioner, as in many similar cases, the government will take away with one hand what it has

given with the other hand! A far more sensible thing would have been not to have pension scheme at all!!

(vi) The benefit approach would mean the per capita burden on the poor as on the rich in the case of many services. This is so because the rich have very many sources for making tax payments.

(vii) The benefit principle cannot solve the problem of distribution and stabilization which are important aspects of public economy. For instance, taxation based on benefit cannot be used to bring about a better distribution of income or to stabilize the economy.

(viii) Finally, the benefit approach can have only a limited application, viz., for special or direct services made available to individuals on a voluntary basis. In other words, the government may function as a private or commercial enterprise and in such a case the benefit approach cannot be applied, for it is unworkable as well as unacceptable from the point of view of equity.

For centuries, writers and pamphleteers have advocated taxation on the basis of benefit received. The basic idea was that such taxation would be just and equitable. Whatever its merits in the past, this principle is clearly not applicable to taxation as a whole. If used as a general principle, it will definitely result in inequality and injustice. Besides, the government may be forced to give up some of the most essential items of expenditure such as on education and public health. However, the benefit approach may be recommended, though on a very limited scale, in the financing of roads and streets.

3.6 Ability Principle of Taxation

The ability approach is based on the broad assumption that those who possess income or wealth should contribute to the support of the government according to their relative abilities. The obligation to pay the government is taken as a social or collective responsibility, though “who shall pay and in what amounts” is necessarily an individualized one. Those who have should pay and those who have not need not.

3.6.1 Justification of Ability Approach

Supporters of the ability approach have sought to justify it on **three grounds: First is the sacrifice interpretation of ability.** As Dalton has stated, sacrifice interpretations of ability look at the psychological effects of tax payments upon individual taxpayers or every group of taxpayers. What could be more equitable than a situation under which each person's contribution

to the support of the government resulted in equal sacrifice for all? But since the concept of sacrifice is subjective, there are many different formulations as, for instance, equality of sacrifice, proportional sacrifice and marginal sacrifice.

Secondly, the ability principle is justified through the principle of diminishing marginal utility of income. Incomes, it may be noted, are meant to satisfy human wants. All those wants which are essential for survival and which are most urgent have been classified as necessities and they have to be satisfied somehow by all. Next in order are those goods and services which may be termed as conventional necessities which, in turn, are followed by comforts and luxuries. As one proceeds from necessities to conventional necessities and then on to comforts and luxuries, the intensity of desire will go on decreasing and, therefore, the successive increments of income necessary to satisfy these categories of goods and services will necessarily give less and less utility. It is, therefore, concluded that tax burdens should be imposed on high incomes, in which case the burden will not be felt much. At the same time, the lower income groups who spend their incomes to satisfy their most urgent and essential wants should be exempted from taxation. Finally, **ability principle is justified on the basis of faculty.** Faculty is the capacity of an **individual to produce and consume** and this is represented by the income and the accumulated wealth of the individual. After meeting certain basic needs, the individual is left with certain resources which reflect a high degree of tax paying capacity.

A little consideration of the above three points to justify ability-to-pay principle of taxation will show the weaknesses of each one of them. Sacrifice is subjective and each writer would interpret it in his own way. Marginal utility of income interpretation of ability has considerable merit but it is also on a subjective plane. Besides, it ignores the use of income for saving and investment which are important both individually and socially. Finally, though faculty interpretation of ability is objective, it bristles with many difficulties when applied in practice.

3.6.2 Index of Ability to Pay

(a) Property as the basis. At one time, property or accumulated wealth was considered as the best index of ability to pay. A family's wellbeing depended upon the accumulated wealth possessed by it. Wealth was considered a better index of ability than income because in addition to being a source of income, wealth provided security and insurance against risk. It is now rightly held that property is unsatisfactory as a primary test of ability but that it can provide a possible supplementary index of ability. This is because property as a source of income is subject to a

number of weaknesses:

- (i) Property is not the main source of income, though it is an important one.
- (ii) Property may or may not yield an income in any particular year.
- (iii) The tax on property will fall upon the capital value of the property if, in any year, there is no income or there is actually a deficit.

In spite of these weaknesses, the ownership of property gives its holder an additional source of taxpaying capacity which is not reflected by net income.

(b) Income as the basis. Income has come to be accepted as an index or criterion of a person's ability to pay. A family's wellbeing will depend primarily upon the income received and hence, income after making due allowances for the children in the family, etc., is generally regarded as the best indicator of a person's ability to pay. For purposes of taxation, gross income is considered unsuitable, for it is composed of cost elements, but net income is regarded as the best measure of taxpaying ability because it reflects the sum of net receipts over costs. Net income exempts the minimum subsistence needs of the individual or of the family group and, therefore, will not restrict the consumption of low or substandard income groups.

(c) Expenditure as the basis. Consumption has been suggested as an index of calculating taxpaying capacity on the assumption that such expenditure measures the true utility or satisfaction derived from income. It is true that income is earned to satisfy consumption but income is not utilized for investment is a very important aspect of spending, both significant and urgent. There is no sense in taking consumption expenditure as an index of ability to pay and ignoring saving and investment expenditure. Thus, the main index of ability, it seems to be agreed generally, is income while supplementary indices can both be property and expenditure. In recent years, in many countries of the world, direct ability of taxation is based on all the three indices.

3.6.3 Ability to Pay and Equality of Sacrifice

Mill interpreted the ability principle in terms of individual sacrifice. He argued that the real burden of taxation should be equal for all and that "similar and similarly situated persons ought to be treated equally". But the term "equal" in equal sacrifice has been interpreted differently. There are three concepts of equal sacrifice—equal absolute sacrifice, equal proportional sacrifice and equal marginal sacrifice.

Equal Absolute Sacrifice. Equal absolute sacrifice implies that the total loss of utility as a result

of tax should be equal for all tax-payers. If there are two tax-payers with different incomes, the one who has more will pay more tax and the one who has less will pay less, but the sacrifice to both as a result of the tax should be equal. This principle received the greatest support at one time because of its apparent fairness. Will not a tax system be the most equitable, if each person's contribution to the support of the government occasioned equivalent sacrifice?

Equal Proportional Sacrifice. Equal proportional sacrifice implies that the loss of utility as the result of a tax should be proportional to the total income of tax-payers. Here, too, those with a higher income will pay more but the ratio of sacrifice to the income will be the same for all. This can be expressed as:

$$\frac{\text{Sacrifice to taxpayer A}}{\text{Income of A}} = \frac{\text{Sacrifice to taxpayer B}}{\text{Income of B}} = \text{etc.}$$

This proportional sacrifice principle attempts to relate the sacrifice of tax payment to the capacity of enjoyment or satisfaction resulting from income. Every taxpayer's loss in proportion to his income should be the same as everyone else's. The difficulty with this principle is to give a practical shape; besides, the concept is somewhat difficult to grasp.

Equal Marginal Sacrifice. Equal marginal sacrifice implies that the marginal sacrifice for the different taxpayers should be the same. Since marginal utility of a higher income will be very much low as compared to a low income, equal margined sacrifice will imply that the person with a higher income will be expected to bear the heavier burden. In fact, it is under the minimum sacrifice principle that the total or collective sacrifice of all taxpayers will be the lowest. Hence, this principle is also known as the least aggregate sacrifice principle of taxation.

Economists have clearly distinguished the three concepts of equality of sacrifice but are not agreed upon the merits of the various concepts. Some writers like Cohen-Stuart preferred equal proportional sacrifice since that would leave the relative position of total utility of tax-payers unchanged. Some like Marshall and Sedgwick preferred equal absolute sacrifice. However, Edgeworth and Pigou rejected the absolute and proportional sacrifice principles on the ground that there was no logical or intuitive choice between them. And they argued in favor of equal marginal sacrifice principle on the ground of welfare, viz., that it satisfies the welfare objective of least aggregate sacrifice.

3.7 Rate Schedules of Taxation

Based on the degree of progression or distribution of tax burden on tax payers there are four commonly used tax structure; Proportional taxation, Progressive taxation, and Regressive taxation and Dis-regressive taxation. There is no unanimity among the economists as to which of these tax systems should be applied in preference to the others while trying to secure the complex fiscal objectives. The following figure better illustrate the system.

1) **Proportional taxation** refers to that system of taxation under which each tax payer pays the same rate of tax or flat or at a single uniform rate, whatever is his income. It means that the ratio of tax liability to tax base remains the same whatever the change in tax base. The following table better illustrate the system.

2)

Taxable Rental income per year birr	Tax rate
0-7,200	10%
7,201 -- 19,800	10%
19,801 -- 38,400	10%
38,401 -- 63,000	10%
63,001 -- 93,600	10%
93,601 -- 130,800	10%
Over 130,800	10%

Table 1, explanation for proportional tax structure

Merit

- On the ground of equity, this tax system is advocated because it does not change the relative position of tax payers or disturb the existing income distribution pattern.
- The tax system is simple and uniformly applicable.
- It is free from the harmful effects like disincentive to saving and productivity that are associated with progressive taxation when imposed steeply.

Demerits

- The burden of tax falls more heavily on the poor section of the society.
- It increases income inequality gap between poor and rich individuals.
- It is less elastic and inadequacy of fund for need of the modern government.

3) Progressive taxation (graded) refers to that system of taxation under which the rate of taxation increases with increase in income. In other words, a tax is said to be progressive when the ratio of tax liability to tax base increases with increase in tax base. The idea of progressive tax system clearly illustrated by the table below.

Taxable income per year birr	Tax rate
0-7,200	0
7,201 -- 19,800	10%
19,801 -- 38,400	15%
38,401 -- 63,000	20%
63,001 -- 93,600	25%
93,601 -- 130,800	30%
Over 130,800	35%

Table 2. explanation of progressive tax system.

Merit

- It is based on the principle of diminishing marginal utility of income. Hence to equalize sacrifice on account of taxation, the rich should be made to pay higher rate of tax than the poor. This is because marginal utility of money for the former is less and, hence, his ability to pay is more.
- A more forceful argument is advanced by Seligman according to whom both productive capacity and consumption increase in larger proportion to the increase in wealth and income. Hence it is only a question of justice that the rich men should pay higher rates of tax than the poor do. This is known as faculty interpretation.
- A social argument is also advanced in favor of progressive taxation. Thus, it is held that the rich has a responsibility towards the poor in society. If the rich pay taxes in larger proportion, then the government will have larger funds to invest for the welfare of the poor.
- The desire to reduce economic inequality can be better translated into practice through progressive taxation.
- Progressive taxation has an in-built mechanism to deal with the undesirable effects of inflation. When income in the society is more than economically necessary and there

is upward pressure on prices, tax rates will automatically rise at a larger rate than increase in income. This will reduce inflationary pressure. The opposite will be the case during deflation period.

Demerits

- The very principle of diminishing marginal utility on which the system of progressive taxation has been advocated stands on loses ground. Since there is no objective criterion to decide the marginal utility of income, it is impossible to correctly determine the degree of progression in tax.
- The capacity and willingness to save is affected. It is the rich who are principal savers. If larger and larger amounts of their income are taken away by taxation, their capacity to save and, often willingness for it will be reduced.
- It discourages hard work. Since large incomes can be earned only by hard work and since a handsome amount of the income so earned is taxed away, people will lose incentive to hard work and earn more incomes. They will rather choose leisure than work to spend time.

4) Regressive tax system: It refers to that system under which the ratio of tax liability to tax base decreases along with the increase in tax base. Alternatively it means the higher income group or richer are at a lower rate and the low income group (poor) may pay high amount of tax i.e the effect of tax rate decline as the value of tax base increases .it is better illustrated by the following table.

Taxable income per year birr	Tax rate
0-7,200	35%
7,201 -- 19,800	30%
19,801 -- 38,400	25%
38,401 -- 63,000	20%
63,001 -- 93,600	15%
93,601 -- 130,800	10%
Over 130,800	0 %

Table 3. Explanation of regressive tax system.

Merit

- For the regressive type of tax system he has to say that since the rate of tax falls with increase in income, it is an incentive to work and earn more income and, hence, savings may be encouraged.
- Since propensity to consume is very high in low-income economies where the poor are the majority, these taxes can mobilize reduces by reducing consumption of people. This is, however, an uncomfortable way of mobilizing taxes.

Demerit

- The tax falls more heavily on the poor. Though the ability to pay decreases along with the fall in income, the poor have to pay larger proportion of their income than the rich are required to pay.
- This is a tax on poverty and will widen the gap between poverty and prosperity. This system of taxation is, therefore, obviously unjust.

4. Dis-regressive tax system

It is similar with progressive tax structure, but in dis-regressive the rate of progression is not the same proportion as the income. Marginal tax rate declines, with each incremental tax base line, the tax rate increase but at decreasing rate. This tax structure clearly illustrated below.

Taxable income per year birr	Tax rate
0-7,200	5%
7,201 -- 19,800	10%
19,801 -- 38,400	14%
38,401 -- 63,000	17%
63,001 -- 93,600	18%
93,601 -- 130,800	18.50%
Over 130,800	18.75 %

Table 4. Explanation of Dis-regressive tax system.

Merit

- Encourage incentive to work, save and invest.

Demerit

- Widened Income inequality.

3.8 Direct and Indirect Taxes

The most well-known distinction between direct and indirect taxes was the one made by J.S. Mill: “A direct tax is demanded from the 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 expenses to another.” According to Mill, taxes were direct or indirect depending upon the fact whether they were actually paid by the people on whom the burden fell or not. According to this definition, personal income-tax or a tax upon house occupied by the owner would be called a direct tax, since there would be no shifting of the burden. A sales tax or a customs duty would be regarded as an indirect tax since it is said to be shifted by the seller to the purchaser. In modern times, taxes are classified into direct and indirect on the basis of assessment, rather than on the point of assessment. Taxes, for instance; can be on income received or on expenditure incurred. Those, which are imposed on the receipt of income are called direct while those which are imposed on expenditure are regarded as indirect. On this basis, income-tax, profit tax and capital gains tax are examples of direct taxes. Excise tax, customs duties and sales tax (or commodity taxes as they are generally called) are indirect taxes. The basic difficulty of this classification is that one man's income is another man's expenditure. Therefore, a tax on the income of someone may also be regarded as a tax on another man's expenditure. But as Prof. Prest has pointed out, the distinction between tax on income and tax on expenditure will hold good if we consider only the household as different from the business houses. From the point of view of a household, a tax on a person's salary will be a tax on income and hence a direct tax and a tax on the consumption of fruits will be a tax on expenditure and hence an indirect tax. But there is no reason why business enterprise should be excluded from this distinction. Commonly speaking, direct taxes refer to taxes on income and property and indirect taxes are those imposed on commodities and services.

- 1) **Direct and Indirect Taxes:A Comparison:** on the bases of impact (immediate burden) and incidence (ultimate burden) of tax, Taxes are classified in to Direct and indirect tax.
 - 1) **Direct tax:** Direct taxes are those taxes whose impact and incidence fall on the same person. They are entirely paid by the individual on whom the tax is imposed. They are levied based on income or wealth (property) of a person. Let us see example for the type of direct tax

- Employee income tax collect with schedule A
- Rental income tax collected with schedule B
- Business income tax schedule C
- Schedule D income tax like
 - ✓ Agricultural income tax
 - ✓ Interest income tax, and income from game of chance
 - ✓ Divided income tax, and casual rent of property
 - ✓ Royalty income and, income from capital gain etc.

2) **Indirect tax:** They are that tax whose impact and incidence fall on different person. The impact falls on the person who is legally label to pay tax to the government in the first instance. The incidence of the tax falls on the person who finally bear the burden of tax. They are tax based on consumption or expenditure of persons. Let us see example for the of indirect tax

1. Value added tax (VAT)
 2. Excise tax
 3. Turn over tax (TOT)
 4. Sur tax
 5. Custom duty
- Stamp duty (some time fall on the category of others)

A Comparison of direct and indirect taxes may be compared from three different angles – allocation of resources, administrative point of view and distributional effects.

3.8.1.1 Allocative Aspect

Traditionally, economists have maintained that the allocative effects of indirect taxes are inferior to those of direct taxes. That is, if a certain amount of money is collected from the community by way of indirect taxes (say, an excise duty) the burden will be greater than if the same amount were to be collected by way of a direct tax (say, personal income-tax). Fig. 3.1 makes use of the indifference curve technique to illustrate this point.

In Fig.3.1, the horizontal axis represents sugar and the vertical axis represents the money income of an individual. OA is his income and AB is the price line, before any tax is levied. The equilibrium position is indicated by point C at which price line AB is tangent to an indifference curve, IC₅. The consumer buys AN quantity of sugar by spending NC amount of money.

Suppose an excise duty is levied on the commodity, making it costlier by the full amount of the tax. As a result of the higher price, OA income can buy only OB_1 quantity of the commodity and, therefore, the new price line after excise duty is AB_1 . The consumer has to move to a lower equilibrium position indicated by D on AB_1 . The individual can now buy only AM quantity instead of AN and spend MD amount of money to buy it. Out of MD amount spent by the person, ED goes to the government by way of the excise duty (the difference between the old and the new price lines is the tax). Thus, the excise duty on sugar has been responsible for reducing the quantity the consumer buys and lowering his welfare (IC_1 instead of IC_5).

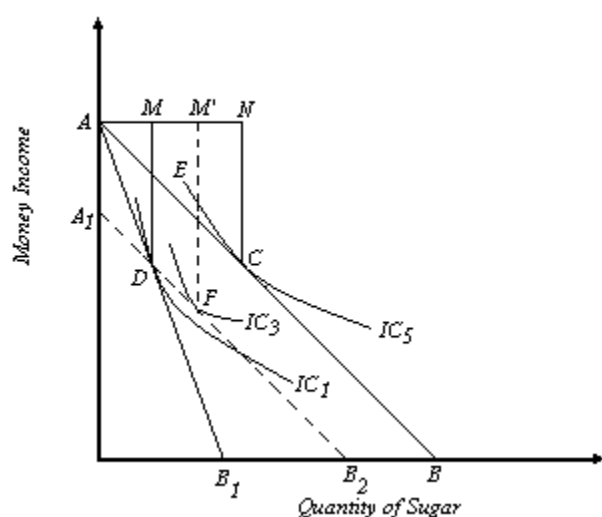


Figure 3.1. Indifference Curve Analysis of Direct & Indirect Taxes

Suppose this amount ED is taken by the government by way of a personal income tax. The consumer's income will be reduced to OA_1 . As the price of sugar remains the same, the new price line A_1B_2 will be parallel to the original price line AB. The new price line passes through point D. The consumer can now reach a new equilibrium position at point F which is on a higher indifference curve (IC_3). Point F is to the right of point D indicating that the consumer will buy a larger quantity of sugar AM' and that he would be deriving greater satisfaction. This means that an income-tax of equal amount is preferable to an excise duty, from the consumer's point of view, since it reduces consumer's welfare much less than an equivalent commodity tax. In other words, a direct tax has less harmful effects on the allocation of resources than an indirect tax.

3.8.1.2 Administrative Aspect

Direct and indirect taxes may be compared from the point of view of administrative cost and efficiency. From the administrative point of view, direct taxes are not levied on low incomes and suitable exemptions in tax are provided for income-tax. Before World War I, it was thought, even in advanced countries, that income-tax could not be levied on wage-earners. In other words, from the administrative point of view, indirect taxes were considered superior to direct taxes. They are easy to collect; they are convenient and are difficult to evade. However, such a comparison between direct and indirect taxes does not hold good because of many factors. First, those income groups which are exempted from the operation of direct taxes on the ground of equity and justice are not exempted from payment of indirect taxes. Second, the modern administrative machinery for tax assessment and tax collection has been revolutionized so much that income taxes and other direct taxes can be levied even on the lowest income groups. It is, therefore, clear that a proper comparison between direct and indirect taxes cannot be made on the ground of administrative cost and efficiency.

Professor Prest mentions certain circumstances when the administrative argument in favor of indirect taxation becomes strong. For instance, there may be a very large number of small, independent producers; or many may be illiterate and incapable of keeping accounts; and barter and subsistence sections of the economy may be quite significant. These actors are especially applicable to underdeveloped countries and they are responsible for the predominance of indirect taxation in these countries. Hence, comparison between direct and indirect taxes on the basis of administration in such a way that the former are inferior to the latter is defective.

3.8.1.3 Distributional Aspect

A comparison may be made between direct and indirect taxes on the basis of their distributional aspect. It used to be held that direct taxes were preeminently suited to bring about reduction in the inequality of income in the capitalist system. Hence, direct taxes were considered very progressive. At the same time indirect taxes fall on all incomes and, therefore, they have been regarded as generally regressive.

However, a close examination will show that the two types of taxes are governed by the same principles as regards their distributional effects and that they are not basically different from each other. It is further pointed out that any scheme of redistribution of income which may be considered desirable can be achieved by either type of taxation. But the process of achieving

such redistribution will be different. In the case of direct taxes, the adjustment takes place through the factor market, for there is a systematic relationship between the size of income and the amount of tax payment. In the case of indirect taxes, the process of adjustment will be through the commodity market. On this basis, it is difficult to speak of direct taxes as progressive and indirect taxes as regressive. In fact, if a direct tax is passed on to the consumer, it will be regressive. Likewise, an indirect tax on luxury goods may shift factors of production from these industries to those lines of production which meet the demands of the common masses and thus an indirect tax can be as progressive as any direct tax.

We may conclude our comparison of direct and indirect taxes by pointing out that:

- (a) Direct taxes are superior to indirect taxes on allocative and distribution grounds; and
 - (b) Indirect taxes are superior to direct taxes on the ground of administrative cost and efficiency.
- In general, economists prefer direct taxes to indirect taxes. However, as we have mentioned already, indirect taxes have a significant role to play in the mobilization of resources for the Government especially in the developing countries in which the vast majority of people are quite poor and cannot contribute anything to the government by way of direct taxes.

3.8.2 The Case of Direct Taxes

3.8.2.1 Merits of Direct Taxation

Direct taxes claim four important merits. First, they are based on the principle of ability to pay so that the burden of taxation is distributed on different people and institutions in a just or equitable manner. They are amenable to fine gradations or progressions. Secondly, direct taxes satisfy the canon of certainty. The taxpayer is certain as to how much he is expected to pay and the State can estimate the yield from direct taxes fairly accurately and adjust its income and expenditure. Thirdly, direct taxes are elastic in the sense that with the increase in income and wealth of the people, the yield of direct taxes will also increase. Elasticity also implies that the government's revenue can be increased simply by raising the rates of taxation. To modern governments, with continuously expanding needs such elastic taxes are very useful indeed. Finally, direct taxes create civic consciousness in that the taxpayers are made to feel directly the burden of taxes and hence take intelligent and keen interest in the way public income is spent. The tax-payers are likely to be more mindful about their rights and responsibilities as citizens of the State.

The advantages of direct taxes are, therefore, equity, certainty, elasticity and civic consciousness.

3.8.2.2 Demerits of Direct Taxes

Among the disadvantages of direct taxes, four points may be emphasized:

- (i) Direct taxes tend to be arbitrary because it is indeed difficult to have an objectively just basis of ability. The rate of income-tax, for example, will depend upon the political complexion of the government. A conservative government may levy a low rate of tax while a leftist government may impose a stiff rate. But experience and care can lead to justice in taxation and arbitrariness can be reduced if not completely eliminated.
- (ii) Direct taxes are taxes on honesty and they tempt people to evade them by hiding their income and wealth partly or fully. But with the passage of time administrative machinery is being tightened and tax evasion and avoidance are being reduced to the minimum.
- (iii) Direct taxes are inconvenient in the sense that the tax-payer has to prepare and supply income returns disclosing all the sources of his income to the tax authorities. Accounting procedures are so numerous and so difficult to comply with, that in most cases, individual tax-payers have to get the help of professional income-tax practitioners to prepare their returns.
- (iv) Direct taxes are often regarded as expensive to collect, since each and every tax payer will have to be separately contacted by the tax authorities. Elaborate machinery has to be designed to contact and assess tax-payers and also to prevent tax evasion.

An evaluation of the demerits of direct taxes will bring out the important fact that the demerits arise mainly because of administrative difficulties and are not due to the non-applicability of any economic principles.

3.8.3 The Case for Indirect Taxes

3.8.3.1 Merits of Indirect Taxation

Among the advantages of indirect taxation, the most important are convenience, difficulty of evasion, elasticity and social benefit.

(I) Indirect taxes are regarded as convenient, for they are imposed at the time of purchase of a commodity or the employment of service so that the tax-payers do not feel the burden of the tax. Besides, the burden of indirect tax is not completely felt, since the tax amount is actually hidden in the price of the commodity bought. They are also convenient because generally they are paid in small amounts and at intervals and not in one lump sum. They are convenient from the point

of view of the government also, since the tax amount is collected generally as a lump sum from the manufacturer or the importer. Apart from convenience, indirect taxes can be made to satisfy the canon of ability, especially if they are imposed on commodities which may mainly be demanded by higher income groups.

(II) Indirect taxes are difficult to evade because they are generally included in the price of commodities purchased. Evasion of an indirect tax will mean giving up the satisfaction of a given want. However, indirect taxes may sometimes be evaded by such methods as falsification of accounts, smuggling, etc.

(III) Some of the Indirect taxes can be elastic, just as direct taxes are elastic, that is, the revenue yielded by these taxes can be increased, when necessary. Such taxes should be imposed on commodities with inelastic demand. However, such indirect taxes will clash with the principle of equity. For instance, commodities with inelastic demand will normally be necessities which are consumed by the lower income groups. Taxes on such goods will obviously be regressive.

(IV) Indirect taxes enable everyone, even the poorest citizen, to contribute something towards the expenses of the State. Since direct taxes leave lower income groups from their scope, indirect taxes make them share in the financial burden of the State. Moreover, indirect taxes perform a social and economic service to the community in general and the poorer sections in particular when they restrict the consumption of such articles as harmful drugs and stimulants.

3.8.3.2 Demerits of Indirect Taxation

Indirect taxes have been criticized on various grounds. First, they are regarded as unjust and inequitable since they fall on, all persons indiscriminately, irrespective of their ability to pay. When mass consumption goods are taxed, the burden is borne more by the poor than by the rich. It is true that indirect taxes can be made progressive and gradations can be introduced but, generally speaking, commodity taxes do not discriminate between people according to their ability to pay.

Secondly, indirect taxes are extremely uncertain. Taxes on commodities with elastic demand were particularly uncertain since quantity demanded will be affected by the imposition of taxes. In fact, a higher rate of tax on a particular commodity may not bring in more revenue. As Dalton wittily put it, here is the case of two plus two adding up to only three or even less than three.

Lastly, indirect taxes do not create any social consciousness as the taxpayers, in most cases, do not feel the burden of the tax to pay.

3.9 Superiority of Indirect Taxes over Direct Taxes

In spite of their demerits, indirect taxes are regarded as better from the point of allocation of resources:

- (i) Indirect taxes which are confined to goods with zero elasticity of demand (absolutely inelastic demand) or low elasticity are regarded the best.
- (ii) Indirect taxes are useful where external diseconomies exist on the production side or on the consumption side. Examples for such diseconomies on the production side are smell or smoke nuisance and on the consumption side is drunkenness. Indirect taxation is useful in that they discourage the people from consuming harmful goods like liquor and drugs.
- (iii) Indirect taxes have been found to be superior to direct taxes, since their effects on incentives to work and save may not be so harmful (unless, of course, they fall on capital goods).
- (iv) They are also suitable for purposes of income correction. If they are imposed on those goods which have a high income elasticity of demand, they yield highly satisfactory results. In this case, ad valorem duties (according to value) rather than specific duties would be preferable since the tax revenue would change in response to a change in price and also change in consumption.
- (v) Finally, as it is difficult, if not also improper, to levy direct taxes on low income groups, the only way the poor can be asked to pay for government expenditure is through commodity taxes. This is the conventional argument in favour of indirect taxes. This argument has lost its significance these days particularly in advanced countries, where there has been great administrative improvement and efficiency in the field of taxation and where the difficulties of taxing the low income groups have been overcome.

3.10 Impact, Shifting and Incidence of Tax

The traditional concept of shifting and incidence of tax is more popularly associated with the classical theorist, E.R.A. Seligman. According to him, answer to the following three questions relating to a tax will give us the meaning of the terms impact, shifting and incidence.

- (a) Who bears the money burden of tax in the first instance?

(b) Is it possible to transfer this money burden of tax to someone else?

(c) Who ultimately bears the money burden of tax?

It is clear from the above that the person who bears the burden of tax in the first instance need not be the person to ultimately bear it. He may transfer the burden. He may not however, be able to transfer the money burden of tax completely to someone else and he may have to bear a part of the burden. Thus, there are three distinct situations in the process of taxation. Impact of the tax refers to the point of original assessment. Hence, impact is on that person who pays the tax in the first instance. It is the immediate money burden of tax. Thus, when a tax is imposed, its impact is on that person who bears the immediate money burden of it.

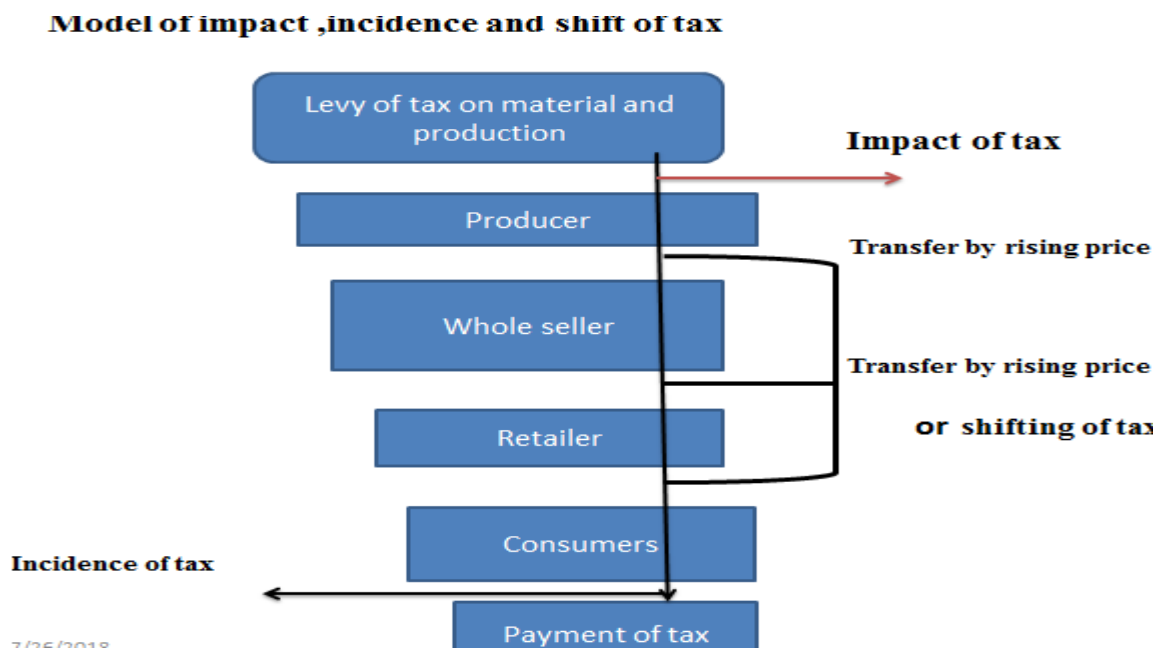
The person need not, however, continue to bear this money burden. He will try to transfer this burden to someone else, i.e., he will try to shift the tax. If he is able to transfer the burden to someone else, shifting of tax has taken place. Thus, shifting is the process of transferring money burden of tax. Shifting ends in incidence. Incidence is the ultimate money burden of tax. Hence, incidence of tax lies on that person who is the ultimate bearer of the tax burden. Thus, if the original tax payer is unable to shift the burden of the tax at all, then the impact as well as incidence will be on him. If, on the other hand, he is able to transfer the money burden of tax, i.e., if he has succeeded in shifting the tax to someone else, say, Mr. X, then the incidence of tax will be said to have moved from him to Mr. X who becomes the ultimate bearer of the tax burden.

Suppose, for example, an excise tax is levied on cloth and the tax authority collects it from the manufacturer of cloth. Hence the impact of tax is on the manufacturer. If he is now able to transfer the money burden to the whole-seller by raising the price to the extent of tax, tax shifting has taken place. The whole-seller may again be able to shift this money burden to the retailer and the retailer may pass on the burden to the consumer through a continued process of shifting. If the consumer has no more possibility of shifting the tax, he becomes the ultimate bearer of the money burden of tax and, hence, incidence will lie on him. If at the retail level, on the other hand, the retailer succeeds in shifting only half the tax burden to ultimate consumers and has to bear the rest half by himself, then fifty percent of the tax incidence will be on consumers and fifty percent on the retailer, i. e., the incidence will be equally shared between the buyers and the seller.

To summarize tax incidence (economic incidence) is the initial and final responsibility or

burden.

Impact of tax (statutory incidence) incidence tax means tries to answer who are legally required to pay tax.



Example

- 1) When we take value added tax legally producers are required to pay VAT but the incidence of value added tax is on consumers.
- 2) Assume the government impose 3 birr per unit tax in each unit purchase,
 - Case **A** if post tax price 13birr
 - Case **B** if post tax price 10 birr
 - Case **C** if post tax price is 12 birr

The impact tax on consumers in case A is 3 birr, actual tax is paid by producer and hence 3 birr impact on producer ,case C both consumer and buyer share paying tax (1 birr by producer and 2 birr by consumer).

3.10.1 Theories of Tax Shifting

To get a fuller idea of the concept of tax shifting and to appreciate its importance, we should have a brief understanding of the theories of shifting. They are (a) the Physiocrats' theory of concentration, (b) the Diffusion theory and (c) the Modern theory.

(a) **Concentration theory.** Physiocrats' theory is also known as concentration theory. According to the Physiocrats, i.e. the French economic thinkers of the old days there should be only one kind of tax, that is, on land. This is because a tax levied on anything else will result in a continuous process of shifting until it finds its resting place on land. It is believed by, the Physiocrats that the tax is paid out of surplus only, and it is only land that produces surplus. To them, the artisans and other classes of manufacturers cannot produce a surplus value because the value of their final output just covers cost of production. This is, however, not the case with agriculture where the value of output far exceeds, that of the input used and the surplus is equal to rent from land. Hence, there should be only one tax on land and the incidence of tax should be on the landlord. In course of time, however, the theory came to be refined by the classical economists, according to whom surplus arises not only in land but also in profit. Therefore, all taxes will come to be absorbed by or their incidence concentrated on these two surpluses, i.e., rent and profit.

(b) **Diffusion theory.** The diffusion theorists, unlike the Physiocrats, do not advocate a single tax. According to them, all taxes, whatsoever levied, will get diffused in the whole economic system, shifted and red shifted continuously until tax burden is spread over the people more or less in an equitable manner. The diffusion theorists point out that there is interdependence of various economic units and that the buyer of a thing is the seller of something else. Under such a system, any particular tax affects the whole economy, though the degree of effect may be different. Hence, according to this theory, every time a thing is bought or sold, the tax levied on it gets partly shifted.

The theory is, however, oversimplified not only because it has assumed away the existence of imperfect market, but also because it draws a dividing line between incidence and the resultant effects of taxation. Dalton thinks that the diffusion theory, unable to ascertain incidence and effects of tax, tries to flee away from the basic problem advocating that incidence is diffused and, hence, untraceable.

(c) **Modern theory of shifting.** Today, tax is accepted as a necessary element of cost of production. Just as any factor of production is an item of input cost, taxes paid to the government are to be included in the expenses of production. Thus, the price of commodity must cover the tax, i.e., the price will be increased by the amount of the tax. It means that the tax will be shifted to the buyer. If, however, the price cannot be raised by the full amount of

the tax, then the tax will be partially shifted to the buyer.

To summarize tax shift is the power of some economic agent like producer or seller to shift tax to other economic agent buyer or consumers (household).

3.10.2 Forward and Backward Shifting

When a tax is imposed, the original tax payer tries to transfer its money burden to someone else. This he will do by changing the price of the commodity taxed. If he succeeds in passing the money burden of tax on to the buyer of the product by raising its price, he has shifted the tax forward and the incidence has moved to the buyer. Shifting of the tax may be backward also. When the seller of the product taxed fails to raise the price and is unable to shift the tax forward, either he himself will absorb it or he will try to shift it backward to the factors of production like labor or capital. If he has to absorb the tax by himself, the tax will be an element of cost of production. In such a case, the cost of production will be increased by the amount of the tax.

Now, if he is able to shift this money burden of the tax to the owner of a factor of production, say, labour, through wage cut, then the tax has been shifted backward to the labour factor. In such a case, cost of production will remain unchanged and the incidence of tax will move to a factor of production. If taxes are unable to be shifted fully, they may be partially shifted forward or partially shifted backward. If a part of the tax is shifted to the buyer of the product taxed, it is a partial forward shifting. In such cases, the increase in the price is by less than the full amount of tax. If, on the other hand, the seller of the product is able to shift a part of the tax backward to the owners of factors of production, it is a partial backward shifting and the remuneration of production factor will fall by less than the amount of tax.

If we want now to identify the linkage between nature of tax shifting and the nature of change in price, we have to ascertain whether the tax is shifted from the seller to buyer or from the buyer to seller. If it is from the seller to buyer, the price is changed upward and it is the case of forward shifting. A tax on sugar, shifted forward to the buyer of sugar through increased price is an example. If, however the tax is shifted from the buyer to the seller, it is a backward shifting made possible by changing the price downward. If, for example, the seller of sugar can shift the tax backward by reducing the wage of labour, he has done it as the buyer of labour. Here the price of labour on which the tax is shifted has been reduced. Thus, forward shifting occurs through rising of prices while backward shifting results in lowering of prices.

3.10.3 Factors Influencing Shifting and Incidence

From the foregoing analysis, we find that there are a number of factors which influence tax shifting and incidence. These factors are mentioned below.

- (i) **Elasticity of Demand.** The elasticity of demand for commodity taxed exercises a very important influence in determining incidence. If the demand for the product taxed is perfectly elastic, i.e., if the demand curve is a horizontal straight line, price cannot be raised at all, because the slightest rise in price will largely reduce the demand for the product. Hence, the incidence will be wholly on the seller. On the contrary, when the demand is perfectly inelastic, the incidence will be wholly on the buyer. In between these two extremes, the incidence of tax will be shared between the buyer and the seller. Thus, with given supply, the larger the elasticity of demand, the smaller will be the incidence on buyer and larger on seller; while, the lesser the elasticity of demand, the larger will be the incidence on buyer and small on the seller.
- (ii) **Elasticity of Supply.** Because price is determined by the interaction of both demand and supply, it follows from the similar reasoning that the incidence of tax on a commodity will be wholly on the buyer when supply is completely elastic and will be wholly on the seller when supply is completely inelastic. With varying degrees of supply elasticity, the incidence will be shared between the buyer and the seller. With given demand schedule, the incidence will be larger on buyer and smaller on seller the greater the elasticity of supply of the product taxed, while the-reverse will be the order of incidence when the elasticity of supply is lesser and lesser.
- (iii) **Market Conditions.** Shifting of tax is also influenced by the conditions of market for the product taxed. If the product is sold in the perfect market which is characterized by many sellers and perfectly elastic demand curve, the price cannot be changed by the seller and, hence, tax cannot be shifted. On the other and, when the product is sold under monopolistic conditions, he can manipulate the price by withholding supply of the product and, hence, can shift the tax at least to some extent.
- (iv) **Magnitude of Tax.** Shifting depends on the magnitude of tax levied. If the amount of tax is very small, it is generally not shifted but absorbed by the seller, because it does not much reduce his profit. The seller, moreover, may absorb it in the hope that he will be able to attract more customers in the event of other sellers trying to raise the price in their

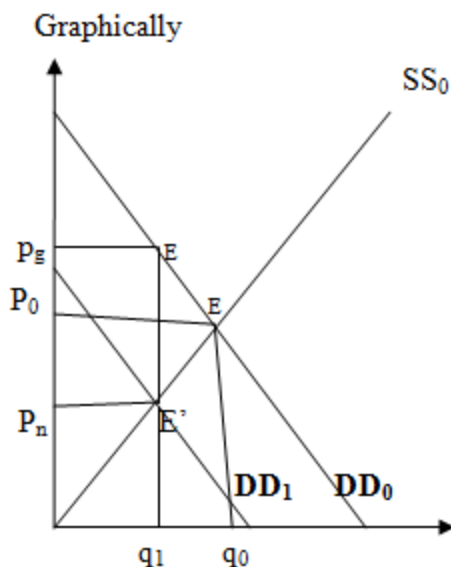
trial of shifting the tax. However, if the magnitude of tax is considerably large, absorption of tax is more likely to reduce the profit of the seller and, hence, he will try to shift it either backward or forward. He may also shift the tax forward by lowering the quality of product without raising the price of it.

- (v) **Coverage of Tax.** Another important factor that influences shifting and incidence is the extent of coverage of the tax. If the tax is more general in nature, falling on wide range of commodities, it may be easily shifted. For example, if a tax levied on bathing soap is general in nature, covering all its kinds and brands, it will be readily shifted. But if the tax is imposed on only one brand of soap with the exclusion of others, the tax may not be possibly shifted. Hence, shifting of tax is easier for more general taxes than non-general taxes.
- (vi) **Substitutability of Product.** It follows from the above argument that taxes imposed on a commodity which has no substitutes or has only poor substitutes can be easily shifted to the buyer, because the buyer will not find an alternative product to satisfy his demand and, hence, he will be ready to purchase the same even when the price is increased by the amount of the tax. But if the product taxed has good substitutes, the raising of price is not possible for the fear of losing customers and, hence, the seller will himself bear the burden of tax instead of trying to shift it.
- (vii) **Public Policy and Tax Laws.** Lastly, the shift ability of tax is influenced much by the tax laws and public policy. For example, when the price printed on the product level is exclusive of the tax imposed on it, the psychological response of consumer helps forward shifting process of the tax. Here, the advertised price is less than the take-home price. The common buyer generally decides to buy on the basis of advertised price, and does not normally mind when tax is added. Tax laws, on the other hand, may legally prohibit forward or backward shifting of tax through controls, restriction on prices, minimum wage legislation, and prohibition of wages cut, etc.

1. **Per unit tax:** It is a fixed tax imposed on per unit good sold or purchased.

✓ Assume perfectly competitive market structure.

A) Statutory incidence on consumer (buyers).



E =equilibrium pre tax

E' =equilibrium post tax

We assume DD_0 is demand curve as perceived by the buyers. DD_1 is demand curve perceived by the seller.

Valuation from the consumer's point of view. Tax imposed does not change valuation of buyer.

p_n =price received by the seller.

p_g =price paid by buyers

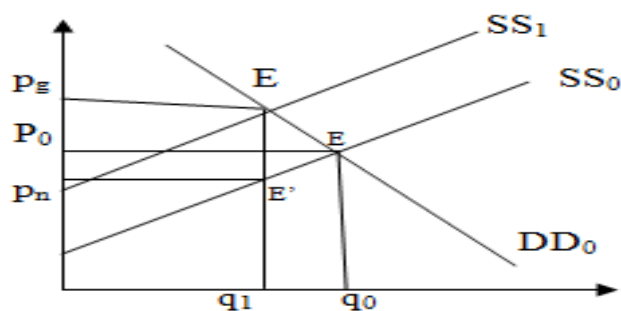
Per unit tax= $P_g - P_n$

Economic incidence can be as follows;

Buyer's incidence = $p_g \cdot P_0$

Sellers incidence = $P_0 \cdot P_n$

B) Statutory incidence on the producer (seller).



Example: Given the demand and supply function in Bonga city administration given as

$Q_d = 80 - 5P$ and $Q_s = -20 + 5P$ in Teff market. Let the government impose 3birr on each unit purchased on the bases of the above information.

- A) Who is legally required to
- B) Calculate net price (P_n)?
- C) Calculate gross price (g_p)?
- D) Calculate tax revenue collected by Bonga city admiration from the above Teffmarket?
- E) Decide buyer and seller incidence using the elasticity approach?

Solution:

A) The buyer

B) Old demand curve: $P = 16 - 1/5Q$

New demand curve $P = 16 - 1/5Q - 3$

$P_N = 13 - 1/5Q$

$Q_{dN} = 65 - 5P_N$

$65 - 5P = -20 + 5P$

Net price (P_n) = 8.50

C) Gross price (g_P) = net price + amount of per unit tax

= 8.50 + 3

Gross price(g_p) = 11.50

Or alternatively, $Q^* = 22.50$

$P = 16 - 1/5Q$

$g_p = 16 - 1/5(22.50)$

$g_p = 11.50$

D) Tax revenue = $22.50 \times 3 =$ birr 67.50

E) The amount of tax burden taken by the seller and buyers depend on the elasticity of supply and demand.

- If $e_s = e_d$, both buyers and sellers share the burden equally.
- If $e_s > e_d$, more burden is covered by buyers .
- If $e_s < e_d$, more burden is covered by the sellers.

Chapter Four

4 Public Expenditure

Chapter Objectives

Thus, after studying this chapter students will be able to:-

- Define public expenditure
- Realize why public expenditure increase from time to time
- State the different theories of public expenditure and make a comparison among the different theories by considering their strong and weak sides
- Explain the effect of public expenditure both on production and employment
- Recognize what government expenditure could incorporate so as to achieve its objectives of economic development.

Public expenditure refers to the expenses which the government incurs for its own maintenance as also for the society and the economy as a whole. These days, some governments are incurring expenditure to help other countries and that would also form a part of public expenditure. With expanding state activities, it is becoming increasingly difficult to judge what portion of public expenditure can be ascribed to the maintenance of the government itself, and what portion to the benefit of the society and the economy.

Historically, public expenditure has recorded a continuous uptrend over time in almost every country. However, traditional thinking and philosophy did not favor the growth of public expenditure. Instead, it considered market mechanism as a better guide in working of the economy and allocation of its resources. It was argued that each economic unit was the judge of its own economic interests and the government was certainly not able to decide on behalf of others. Furthermore, while a private economic unit was guided by its own economic interests, the public sector would have no such motivation. Accordingly, efficiency would be at low ebb there. Had this philosophy been practiced in its entirety, public expenditure would not have grown as rapidly as it did? In reality, however, the problems of labor exploitation, economic and social injustice and such like things assumed serious proportions and would not be ignored. The result was that along with the advocacy of laissez faire, various socialist and welfare ideas also gained currency. And, of course, the governments found that they could no longer remain silent spectators of the miseries of the people.

4.1 Causes of Growth in Public Expenditure

Some of the basic causes of ever-increasing public expenditure have been mentioned in the theories associated with the issue. However, under the changing situation of the modern world, many more factors are at work behind the continuous growth of public expenditure. The most important causes are the following.

- i. **Population growth.** The growth in the numbers particularly in developing countries has been a major cause of the continuous rise in public expenditure. Along with growth in the numbers, the responsibility of government relating to public services has been multiplied. To check the growth of population, again, the government has to incur a huge expenditure.
- ii. **Increasing urbanization.** As the rural areas cannot subsist the growing population, there is a continuous rush to the urban areas. The size of cities is becoming larger and larger, while newer urban habitations are springing up. The maintenance of complexity of life has, therefore, become costlier and the government has to squarely face the problem.
- iii. **Provision of economic overheads.** Without the creation and maintenance of economic overhead facilities, no country can develop. These facilities like provision of a good system of transport and communication, generation of electric power, etc. require heavy investment of capital which does not flow from private sector sources. Hence, government has to assume these responsibilities if the basic requirements of development are to be satisfied at all. Thus, public expenditure on account of economic infrastructure is of huge size in developing countries.
- iv. **Maintenance of law and order.** Along with the growth of population, urbanization and complexities of modern economic and sociopolitical life, law and order problems have also multiplied. The government responsibilities of internal protection of people from breach of peace by antisocial elements have gradually become multi-sided requiring government expenditure of more and more funds.
- v. **Welfare activities.** Previously, public expenditure was limited by only a few functions of government, viz, the defense, maintenance of law and order and administration. But, presently, the countries have emerged as modern welfare states where the greatest good of the greatest number is the main objective of statehood. The government now has to assume such responsibilities as family and child welfare, social security like old age

pension, unemployment benefit, sickness benefit, etc. housing for the poor, welfare of handicapped and backward classes, rehabilitation of displaced persons, subsidy on food and production inputs, etc. Public expenditure on welfare programmes has, therefore, become tremendous with the passage of time.

- vi. **Provision of public goods and utility services.** Public goods are those that are consumed equally by all. They cannot be sold in the private market. Defense and police services, justice, roads, irrigation and flood control projects, public parks, etc. are all examples of public goods. They involve huge investment and have to be provided by the government. Moreover, there has been a growing trend of public utility services like railways and other transport services, postal, telegraph and telephone services, electricity services, etc. coming under the government sector. They all involve heavy expenditure on installation and maintenance.
- vii. **Servicing of public debt.** A substantial part of the huge expenditure program of government is met from public borrowings. This is because resources cannot be mobilized from taxation beyond a limit. Hence, modern states incur considerable internal and external public debt. The repayment of debt and obligation to pay service charges become huge.
- viii. **International obligation.** Finally, the modern states have to maintain many international socio-political and economic links. They have to maintain diplomatic relations, economic links with international institutions like I.B.R.D. (the International Bank for Reconstruction and Development), I.M.F. (International Monetary Fund) etc, Socio-cultural and academic exchange relations, linkage with development programs of the type of economic co-operation, gifts and donations, regional economic integration and membership of other international organization like UNO (United Nations Organization), etc – all these involve a considerable amount of public expenditure.

1.2 Public expenditure: Canons, Theories and Accountability

In the earlier part we vividly discussed public expenditure in relation to the reasons for its growth. This part is devoted to canons and theories of public expenditure on the one hand and its public accountability and control on the other. In the last part of the discussion, a section is devoted to accountability of public expenditure.

4.2.1 Canons of public expenditure

As in the case of taxation, there are a number of canons for public expenditure also. Some of these canons may be regarded as principles, while others are no more than general guidelines for the public authorities to help them in their task of planning and execution of public expenditure properly. Thus, Findlay Shirras suggests that public expenditure should be beneficial to society while incurred economically and should not be wasteful or made without previous sanction. Other economists have added a few more guidelines. Taking all of them into consideration, the following will be the canons of public expenditure.

- i. **Canon of Benefit.** Public expenditure should be so planned and implemented as to bring about the greatest possible benefit to society. This canon is simply a reminder to the public authorities that whatever they spend they should do it according to the principle of maximum social advantage. What it means is that all such expenditures which do not bring benefit to society should be avoided. Thus, all non-essential expenditures should be cut to the minimum. Benefit from public expenditure may be identified with achievement of proper allocation of economic resources, proper distribution of income and wealth in society and stability of price level and growth of economy. This canon also points to the need of undertaking a cost-benefit analysis of the competing schemes of public expenditure before the final selection of investment project is made.
- ii. **Canon of economy.** Public expenditure should be incurred carefully so that there is no wastage of funds. Since resources are limited in the society, they have to be most properly utilized. Economical use means most proper utilization. Hence the canon remains a constant reminder that resources must not be misused or wasted. Most important reasons of wasteful expenditure are faulty planning, faulty execution, corrupt practice and delay due to time lag between plan and execution and, hence, escalation of prices. These types of wastage have to be avoided at any cost. It must be noted here that benefit to society cannot come without proper pursuit of the canon of economy.
- iii. **Canon of surplus.** This canon requires that expenditure of public authorities should be kept within the limits of current revenues. If possible, the expenditure should be less than the earnings of government so that the surplus so generated can be used when there is unavoidable deficit. Surplus can be generated either by controlling expenditure or by increasing current revenues. Of late, however, there has been much change in the thinking

around budget policy. The occurrence of depression and the need for achieving price stability and economic growth often requires deficit financing, i.e. excess of expenditure over current revenues. Hence, a choice of surplus or deficit budget is decided by the merit of the case. This canon is, however, an important reminder of the fact that the government should not overspend and run into debts and that a deficit spending should be avoided as far as possible.

- iv. **Canon of sanction.** This canon requires that the public authorities should not be allowed to spend funds without having a previous sanction from appropriate authority for the purpose. It also requires that funds sanctioned for a particular expenditure should not be diverted to a different purpose and spent thereon. In a democracy, such sanctioning authority is vested on the legislature. Since there are different agencies in the governmental set up for executing public expenditure programs, detailed authorizations are worked out for different spending agencies so that misuse and wastage of expenditure can be avoided. In order to deal with emergency purposes of expenditure, some discretionary sanctioning power is also vested on some important officials.
- v. **Canon of elasticity.** Canon of elasticity requires that the rules of public expenditure should not be too rigid to achieve the real purpose and that it should be allowed to vary according to the needs and circumstances. For example, if the economy suffers from unemployment and deficiency of demand, there should not be a rigidity that the budget should be balanced. Under such situation, the government should go for a deficit budget and inject additional purchasing power into the economy so that effective demand is increased and factors of production are employed on larger scale. Or in case of emergent situations like flood relief, sanctioning authority should be vested with the lower rank spending unit since there is no time to secure sanction from higher authorities. Flexibility of expenditure should be provided under such circumstances.
- vi. **Canon of certainty.** This canon requires that public authorities should clearly know the purpose and extent of public expenditure. The spending unit should be certain as to the amount and objective of public expenditure. This requires a proper expenditure plan well thought out beforehand. The canon of certainty is followed through the preparation of budget. The budget details the amount and purpose of expenditure for the whole financial year. It is through the budget that the spending authorities have proper knowledge of the use

of public funds. In the absence of such a certainty, fiscal discipline cannot be maintained and there will be unnecessary wastage and overspending.

4.2.2 Theories of Public Expenditure

Economists have offered a number of theories on public expenditure. The following theories of public expenditure need special mention.

1. Classical theory of Minimum expenditure.
2. Principle of Maximum Social Advantage.
3. Principle of Maximum Aggregate Benefit.
4. Bowen's Benefit Theory of Public Expenditure.
5. Lindahl's Benefit Model of Voluntary Exchange.
6. Samuelson's Benefit Theory of Public Expenditure.
7. Musgrave's Optimum Budget Theory of Public Expenditure.

4.2.2.1 Classical Theory of Minimum Expenditure

Classical economists did not favor large public expenditure. According to them, that government is best which governs the least. The 'laissez-faire' philosophy of Adam Smith implies that individual is the best judge of himself and that he will be the best productive agent if he is left free to take his own decisions. Thus, classical economists wanted that the state activities should be confined to the bare minimum, because interference with the free economy by the government would hinder economic progress. Hence, evolving the proper theory of public expenditure was not the concern of economists. They advocated the principle of sound finance, according to which budget should always be balanced, i.e. public expenditure should not rise above or fall below revenue earnings. Thus, according to classical theory, public expenditure must be limited to the bare minimum and must not exceed public revenues.

The classical theory of minimum expenditure is based on the assumption of full employment on the one hand and laissez-faire doctrine on the other. Since the economy operates at full employment level, the problem of economy in the classical system is not attainment of growth. The economy functions with maximum efficiency. Moreover, with the philosophy of 'laissez-faire' followed, most of the economic activities are performed by the private sector. Under such a situation, the size of public expenditure is always small and the budget should always be balanced. If public expenditure becomes more and is financed by public borrowing, there will be withdrawal of funds from private sector where they are more productively employed. Such

diversion of resources will cause a decline in overall economic efficiency.

4.2.2.2 Principle of Maximum Social Advantage

Dalton states the principle of Maximum Social Advantage in the following words: “Public expenditure in every direction must be carried so far that the advantage to the community of a further small increase in any direction is just balanced by the advantage of a corresponding small increase in taxation and receipts from any other source of public income.

Public expenditure is made from the sources mobilised through taxation or borrowing. Thus, there is a continuous transfer of resources from one section of people to another. The funds paid by tax payers come to the public treasury. These funds go back to the people through public expenditure programmes. The principle of maximum social advantage lays down that public expenditure should be so planned and, hence, revenue resources so raised so as to bring about benefit larger than sacrifice and that the surplus of aggregate satisfaction in the society is maximum.

To judge whether the principle of maximum social advantage is secured or not, the following points have to be considered. The character and composition of public expenditure is the most important consideration. Large investment of expenditure means large sacrifice of tax payers. Even then if it is a capital investment, the ultimate benefit may be much larger than the communities’ sacrifice. On the contrary, unremunerated public expenditure, even when amount is small, will not achieve the principle. Secondly, the method of taxing to raise resources for expenditure has to be judicious. The same amount may be raised from a number of alternative taxes. That method should be employed which will result in least sacrifice. Thirdly, tax-expenditure programme should be so structured as to result in increased productive capacity of community and, hence, enhanced national income.

It is, therefore, important to see that public funds are not spent for the benefit of a particular group only. In order that public expenditure contributes welfare to the whole community, they should be made on protection of the country from foreign attack and result in increased production and productivity, reduction of inter-personal and inter-regional inequality, maintenance of economic stability and provision of future development.

The principle of maximum social advantage is derived from the principle of equi-marginal returns as applied to an individual. Thus, if it is found that marginal utility from public expenditure on medical and public health measures is greater than the marginal utility derived

from the same amount spent on provision of public parks, then the government should transfer the public funds from the latter to the former account. This will maximize social advantage. As shown in figures 4.1 and 4.2, the limited amount of public expenditure totals OA and the amount O_1B spent respectively on public parks and medical and public health. Expenditure is measured along horizontal axis and marginal utility along vertical axis. As clear from the figures, the allocation of expenditure at OA results in lower marginal utility than at O_1B . Hence, transfer of expenditure of the amount $AK (=BL)$ from public parks to the provision of medical and public health will raise aggregate utility because the increase of utility area $BLMD$ is larger than reduction of utility area $KACN$. This is how equality in marginal utility from public expenditure in all directions will maximize social advantage.

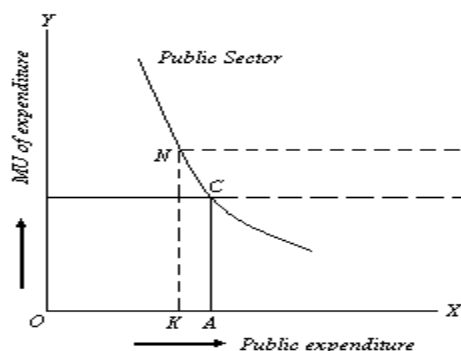


Figure 4.1 Public expenditure on public parks

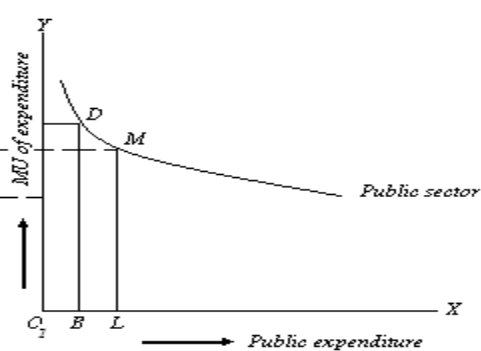


Figure 4.2 Public expenditure on medical and public health

The main defect of the theory is that it is not possible to measure precisely the difference in benefits from different directions of public expenditure. However, a rough guidance is obtained and this is what is important. Secondly, the requirement of the principle that expenditure should not be specially made for a particular section of society is not followed in many underdeveloped countries where special attention is paid to the benefits of backward sections of society in preference to other communities.

4.2.2.3 Principle of Maximum Aggregate Benefit

Pigou's theory is also not different from that of Dalton. Like Dalton, Pigou also argues that expenditure should be made in such a way that it leads to maximum welfare of the maximum number. In his words, "expenditure should be pushed in all directions up to the point, at which

The principle of maximum aggregate benefit is the other name of "maximum welfare principle of budget determination" discussed generally under taxation topics. Pigou's theory requires the application of two rules, viz., (a) the principle of equi-marginal returns whereby individuals maximize satisfaction by spending their income on different goods in such a way that marginal utility from each type of expenditure is equal and (b) the principle of equality between marginal social sacrifice and marginal social benefit. This is illustrated in figure 4.3 where the size of the budget i.e. the amount of public expenditure or, for that matter, taxation is measured horizontally and marginal utility, i.e. benefit from public expenditure or marginal disutility, i.e. sacrifice from taxation is measured vertically. Marginal social benefit and marginal social sacrifice are shown by the curves EE_1 and TT_1 respectively. The net benefit is shown by NN_1 curve. Thus, when the amount of public expenditure or taxation increases from OC to OL, marginal social benefit from expenditure is reduced from AC to KL, while marginal social sacrifice of taxation increases from CD to LM. At OL amount of expenditure, MSB (Marginal Social Benefit) and MSC (Marginal Social Cost) are equal because $KL = LM$. It is here that optimum size of budget is determined and maximum aggregate benefit is secured to the society.

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4.2.2.4 Bowen's Model of Public Expenditure

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

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

$$MU_A + MU_B = MC_X$$

$$\text{Or } P_A^X + P_B^X = MC_X, \text{ Hence, } TC_X = QP_A^X + QP_B^X,$$

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

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

The demand schedules for social goods of A and B are shown by the lines aa and bb respectively. The line tt shows the aggregate demand schedule of both A and B. Let SS be the

supply schedule of social goods which are assumed to be produced under conditions of increasing cost. Since the same amount of social good will be consumed by both A and B, the aggregate demand schedule, it is made up of vertical addition of aa and bb .

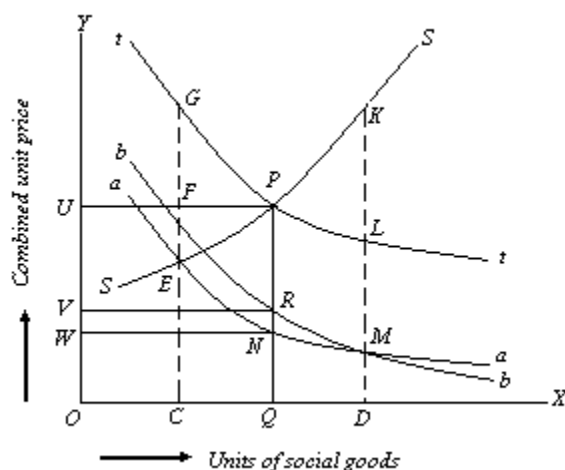


Figure 4.4: Bowen Model

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

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

4.2.2.5 Lindahl's Model of Voluntary Exchange

The voluntary exchange model of public expenditure theory is concerned with what Erik Lindahl calls 'purely fiscal' problem of providing for the satisfaction of public wants. It does not concern itself with the problem of just distribution of income. This is taken as given.

The determination of public expenditure and taxation is to be made on the basis of individual preferences. For this purpose, says Lindahl, three sets of decision are necessary, i.e. the determination of total amount of public expenditure and taxes, allocation of total public expenditure among various social wants, and allocation of total taxes among various individuals. All these have to be done simultaneously.

To understand Lindahl's model, let us assume a community of two individuals 'A' and 'B' and one type of social good. Since each of 'A' and 'B' consumes the total amount of social goods supplied but receives different amounts of benefit from it, their benefit shares may be considered joint products. Hence, the cost of supplying social goods is a joint cost which has to be allocated to the supply price of joint products. Thus, if 'A', the purchaser of his benefit share, is willing to contribute x percent of the total joint cost, B will be called upon to contribute the rest, i.e. $(1-x)$ percent for purchasing his own benefit share. Thus, one will have to pay more if the other contributes less so that the joint contribution of both A and B covers total cost of supplying the social good. It follows that A's offer to contribute certain percentage of total cost may be looked upon as B's supply schedule of social goods; and B's offer may be similarly interpreted from the view point of A.

Lindahl's model of simultaneous determination of optimum public expenditure, i.e. optimum amount of social goods and of the cost allocation among benefit shares, i.e. tax share of different individuals may be diagrammatically explained in the following figure.

We measure quantity of social goods along horizontal axis, percentage of total cost contributed by 'A' along left vertical axis and percentage of total cost contributed by 'B' along right vertical axis. The total unit cost of supplying social goods is OV. The curve aa is the demand schedule of individual 'A'. The demand schedule of individual 'B' is given by the curve bb, calculated by inverted scale on the right axis. The demand schedule of 'A' may be viewed as supply schedule of 'B' and the vice versa. Thus, 'A' will be willing to contribute 100 percent of cost for output OD, which will be available free to 'B'. At the output level OG, individual 'A' is willing to contribute 75 percent of the cost (GS) and, hence, the output is available to 'B' at 25 percent of cost (RS) since the vertical distance between upper horizontal axis and B's supply schedule at

this level of output is RS percent. However, B will be willing to contribute 50 per cent, i.e. RT because T is the point on his demand schedule. Thus the total contribution of both A and B will exceed the cost of supplying the social good by ST percent (25 percent). This is an indication of their preference for larger scale of social goods. The optimum level of social goods is given by OE at which 'A' contributes EQ percent and B contributes PQ percent of cost and, hence, the combined contribution is exactly equal to the total cost of supplying this level of output.

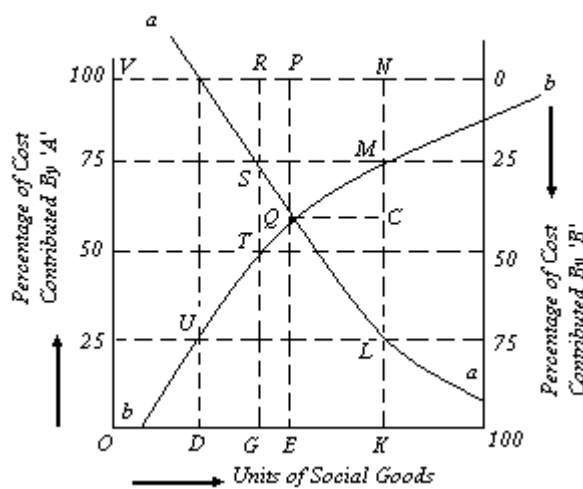


Figure 4.5 Optimum public expenditure and tax shares

Not more than OE will be produced because the combined contribution will fall short of the cost of production for any larger amount. Thus, at OK scale of output, 'A' will be willing to contribute KL percent and the supply price of the social good to 'B' is NL. But, because his demand schedule point lies at M, 'B' will offer to contribute only NM percent. Thus, as much as ML percent of the cost of supplying this output will remain uncovered. If, now, 'A' contributes KC Per cent and 'B' contributes NC per cent so that OK amount can be supplied, both will be paying larger than what they are willing to pay. Hence both 'A' and 'B' will vote for smaller amount of social goods. In the same way it can be shown that both the individuals will vote for larger amount of social goods at the level of supply lesser than the optimum scale of OE output. We assumed in the beginning a single type of social goods and two tax payers only in order to simplify the solution. If we now relax these assumptions and allow for a number of social goods and many tax payers, the theoretical validity of the model will not be affected though some complexity will arise.

4.2.2.6 Samuelson's Benefit theory of Public Expenditure

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

Application of market principle to the pricing of social goods to determine optimum allocation of resources becomes the starting point of Samuelson's theory. In the case of a private good, marginal utility and marginal cost are equal for all consumers. Since utility schedules of individuals are different, such equality and, hence, efficient level of output will be attained with different consumers consuming different amounts of output at the same price. It follows that the aggregate demand schedule will be the horizontal summation of individual demand schedules. However, in the case of public goods which are, by definition, consumed equally by all, different individuals will pay different prices for the same quantity of output. Here the sum of marginal utilities to consumers will be equal to the marginal cost. It follows that the individual demand schedules will be vertically added in this case. Thus under such circumstances, "even if all preferences are revealed, there is no single best solution analogous to the pareto optimum in the satisfaction of purely private wants. Instead, we are confronted with large number of solutions, all of which are optimal in the Pareto sense."

4.2.2.7 Musgrave's Optimum Budget Theory

The Optimum Budget theory of Musgrave seeking to determine the optimum amount of public expenditure is a normative approach to budget policy. Musgrave built up an ideal theory according to which a budget should realize three objectives, viz, proper allocation of resources, proper distribution of income, and price level stability with full employment. For each of three objectives, Musgrave would consider a sub-budget. When these three sub-budgets are prepared according to their objectives, they will be consolidated into a single whole budget plan. The optimum budget theory seeks to achieve the purpose of allocation branch of the budget. Musgrave's theory of determination of optimum public expenditure in the allocation branch of the budget is based on benefit approach. The people have a choice pattern or preference schedule

between public goods, private goods and leisure. Leisure is a component of welfare because leisure can be transformed into production of goods and services of earnings of income. Optimum budget theory seeks to allocate public expenditure or provide for public goods in such a manner and, to that extent, whereby the community, as a whole, is able to derive the greatest attainable satisfaction. This is possible when allocation of public expenditure in different lines of state activity is so determined in the budget that the community is able to reach the highest possible indifference surface as between public goods, private goods and leisure. Practical difficulty, however, lies in the fact that the people cannot be made to reveal their preference pattern and that it is difficult, if not impossible, to construct community indifference surface from individual indifference patterns.

4.2.3 Control and Accountability of Public Expenditure

The necessity to control public expenditure in order to check misuse of public funds and ensure their efficient utilization is only obvious. Control does not necessarily mean reduction. “It means that expenditures are justified in terms of the whole welfare of society and in terms of the financial means at the disposal of government. Control implies that expenditures are economic by which we mean that resources not unlimited in quantity are devoted to their most productive uses.”

Control of public expenditure is sought to be ensured multi-dimensionally at a number of stages. The most important means of control are (a) budgetary control (b) legislative control, (c) executive control, (d) audit control, and (e) parliamentary control.

(a) **Budgetary Control.** Budget preparation is the most primary stage of expenditure control. Budget is a well thought-out plan of governmental activities during the coming year and speaks of much more than a mere statement of income and expenditure of public authorities. It specifies the functions and objects of public expenditure. How much of the public funds is to be spent for which particular purpose, and which particular department, what should be attainment of physical targets against the specific expenditure amount and what should be the allocation of funds for the use of a particular department are all specified in the budget frame. The budget also presents a comparable picture of the revenue earnings and expenditure of the outgoing year along with the estimates of such financial operation for the coming year. The difference between the two, if any, has to be convincingly explained. Hence, a budgetary exercise of this kind serves as a control of public expenditure in many ways. In recent years, the practice of breaking up of

public expenditure in terms of major heads, minor heads and sub-heads has provided added means of controlling expenditure.

(b) **Legislative Control.** After the budget plan is prepared, it has to be presented in the legislature for its approval. There occurs debate in the legislature where the members seek clarification and justification of expenditure programmes. After critical study of the budget plan, expenditures estimated originally may be curtailed or enhanced or kept unchanged according to the merit of the case. When the legislature is satisfied, it gives approval to the budget plan. During the legislative scrutiny of the budget, the details of expenditure, department-wise and ministry-wise are discussed. Thus, it is a very important stage of expenditure control.

(c) **Administrative Control.** The rules and regulations ensure that no amount is spent without proper sanction or diverted to some other purpose for which it is not sanctioned. There is elaborate body of rules to fix responsibility on specific executive personnel for the funds spent. The rules ensure that there is no fraud or misuse or misappropriation or any other kind of leakage during the execution of public expenditure programmes. It is not only that the government official through whom is the public fund directly spent in the project work is responsible to his head of the department but also that the latter is responsible to higher authority.

(d) **Audit Control.** The next stage is scrutiny of accounts and audit control. There is the system of both internal and external audit. Every department has its accounts section which scrutinizes all accounts of expenditure and ensures that public funds are spent according to rules of propriety, economy and efficient utilization. However, audit reports are less than vocal relating to efficiency of public expenditure. This shortcoming is sought to be removed through economic and functional classification of public expenditure and practice of performance and program budgeting which have an in-built mechanism to ensure efficient use of public funds.

(e) **Parliamentary Control.** The last of these stages of expenditure control is the parliamentary right to enquire into any particular item of expenditure deal. There are two committees constituted by the parliament to go into such scrutiny. They are (i) Public Accounts Committee and (ii) the Estimates Committee. Public accounts committee is entrusted with the responsibility of examining audit reports and appropriation accounts. They also examine profit and loss accounts of government undertakings and autonomous bodies. They follow up cases of impropriety, unauthorized and illegal expenditure, misuse and misappropriation and go into

further investigation if necessary. Estimates committee looks into the financial operation of the executive and suggests measures to achieve maximum economy of expenditure consistent with maximum efficiency. The parliamentary committees pinpoint the erring officials, examine them and suggest follow-up measures for suitable punishment to them.

4.3 Effects of public expenditure on production and distribution

4.3.1 Effects on Production and Employment

The expenditure of the Union Government on development is meant to promote production and employment in the country. Expenditure on agriculture and allied services, industries and minerals, water and power development, transport and communication and other expenditures on community and social development by the Union and State Governments help directly to raise the level of production and employment in the country. Further, the enormous expansion in expenditure by the Union and State Governments is to boost demand for goods and services and thus to boost production. The level of production and the level of employment in any country depends upon three factors, viz.,

- a. Ability of the people to work, save and invest,
- b. Willingness to work, save and invest, and
- c. Diversion of economic resources as between different uses and localities.

It is possible to influence all these factors through public expenditure either for the better or for the worse.

Ability to Work, Save and Invest. If public expenditure can increase the efficiency of a person to work, it will promote production and national income. Public expenditure on education, medical services, cheap housing facilities and recreational facilities will increase the efficiency of persons to work. At the same time, public expenditure can promote income of the people. Finally, public expenditure, particularly repayment of public debt, will place additional funds at the disposal of those who can invest. Thus, it will be seen that public expenditure can promote ability to work, save and invest and thus promote production and employment.

Willingness to Work, Save and Invest. The effects of public expenditure on the willingness-as different from ability to work and save and invest on production are not clear enough. Pensions, interest on loans, provident fund and other government payments provide security and safety to a person, and therefore, reduce the willingness of persons to work and save; why should a person work hard and save when he knows well that he will be looked after by the government when he

is not in a position to earn an income?

Diversion of Economic Resources. Public expenditure has far-reaching effects on the utilization of economic resources as between alternative uses. Public expenditure can bring about a better allocation of economic resources as between the present and the future. In a free capitalist society very little provision is made for the future. This is because people prefer the present rather than the future and, therefore, they do not make adequate provision for the future. The State on the other hand, is the custodian of the interests of the future generations also and, therefore, has to see that adequate provision is made for the future. Public expenditure on transport, irrigation and other projects which yield both immediate return as well as social and economic benefits for generations to come, are some examples. Secondly, the government spends money in the conservation of economic resources which are very essential for the future. Thirdly, the government spends money for encouragement of research and invention, promotes education and training, looks after public health and sanitation and also takes the responsibility of social security measures. It is necessary to emphasize that the diversion of economic resources in all these ways will greatly increase production. Generally, the effects of public expenditure on production and employment are favorable. Taxation, taken alone, may check production; but public expenditure, taken alone, should almost certainly increase it. The development expenditures of the Central and State Governments aim at raising the level of production and employment in the country. It is possible that production will be adversely affected if public expenditure is carelessly planned, but it will positively stimulate production if carefully planned.

4.3.2 Effect of public expenditure on distribution of income

These days, every government aims at reducing inequalities of income. Public expenditure (as part of fiscal policy) can be used by the government to achieve this aim.

While taxes, particularly progressive direct taxes, have the effect of reducing the incomes and wealth of the higher income groups, public expenditure has the effect of raising the incomes of the lower income groups. Government's expenditure on education, public health and medicine, housing, etc., is directed to help the poor and the lower income classes (who make use of government schools and hospitals). At the same time, social security schemes are run by the government for the benefit of the working classes so that they may be protected from unemployment, accidents, sickness and old age. Thus, public expenditure, if carefully planned

and executed, will help in redistribution of income in favor of the poor provided, of course, taxation is used to reduce the incomes and wealth of the higher income groups.

4.4 Public expenditure and control of inflation

Inflationary pressures may be considerably lessened if government expenditure is reduced. This may be taken as a simple and direct solution, but for the fact that, in the majority of cases, the most serious type of inflation has always been due to enormous government expenditure. This type of situation may be due to war when large sums are spent for military purposes or due to preparations for war during peace time. However, the government can suitably change and adjust its expenditure during an inflationary period so that the inflationary pressure may be reduced. For instance, all those schemes which may be justified during a period of depression and low level of employment may be omitted during inflation. At the same time, the government can postpone the construction of social capital such as post offices, schools, etc., which will increase the size of income of people but will not contribute to the increase of goods. Secondly, the government can give subsidies to those industries which are producing inflation-sensitive goods so as to accelerate their production or to enable producers to sell them at lower prices.

4.5 Content of Development Expenditure

Development expenditure of the government should aim at stimulating and supplementing private initiative and enterprise. It is possible-and some governments of developing countries have attempted to do so-to eliminate the private sector altogether and plan for the entire economy as a whole. There is some advantage in that. But many may not like a communist pattern of economic development which is rapid, of course, but may prove to be nevertheless ruthless and inhuman. In a democratic setup, with parliamentary institutions, emphasis will have to be not on the elimination of the private sector but the setting up of a mixed system in which private enterprise will be given active encouragement and, at the same time, the government will become an interested and active participant in development activities.

a. Stimulating private initiative. Development expenditure of the government will take the form of stimulating private initiative and enterprise. Direct stimulation is done by the Government helping the private sector through loans, subsidies, tax concessions and exemptions and providing market and other information and research facilities. The

government can set up special banking and financial institutions whose main aim will be to provide finance for medium and long-term periods at low rates to help the private sector industries with adequate finance. In many underdeveloped countries, the government will have to set up a strong commercial banking system with a central bank at the top. These are direct methods of helping the private sector to expand and develop.

b. Provision of social and economic overheads. Indirect stimulation of the private sector may be done by the government through the provisions of social and economic overheads - education and public health will come under the first head, and provision of power, transportation, communication, etc., will come under the second head. The private sector industries would reap enormous benefits of economies of production from these facilities provided by the government. Social and economic overheads are necessary and essential prerequisites for economic growth. In fact, there are many competent authorities who would like governments of underdeveloped countries to provide only these facilities and leave the rest to the private sector.

C. Public enterprises. The government will have to start and run such undertakings which the private sector may be unwilling to undertake, either because profit margins are low or almost nothing, or because they require huge capital investment and a long time to yield returns. These enterprises may not be appealing to the private sector from the commercial point of view but may be of great significance from the point of view of economic welfare of the community as well as that of economic progress. In this group will come all the key and basic industries, development of irrigation resources, electric power, etc. In fact, any industry which is necessary for the country and which will help in the growth of the economy can be taken up by the government. The idea, however, is not to compete with the private sector but really to supplement and complement it.

Chapter Five

5. Public budget

5.1 Meaning of Public Budget

Chapter Objectives

Thus, after studying this chapter you will be able to:-

- Define what public budget is
- Understand the importance of public budgeting
- Explain the procedures, types and objectives of public budgeting
- Explain the role the government budget can play as instrument of economic policy

Many scholars have defined budget in different ways. According to Prof. Rene Stourn "it is a document containing a preliminary approved plan of public revenue and expenditure". According to Gaston Gaze "The budget in a modern state is a forecast and an estimate of all public receipt and expenses, and for certain expenses and receipts, an authorization to incur them and collect them." There are many others, which can be cited, but they all express the same things. They all put forth the elements that are present in a budget. These main elements that present in budget are:

- It is a statement of expected revenue and proposed expenditures of the authorities concerned
- It requires some authority to sanction. For example after it is prepared, the parliament has to approve public budget in Ethiopia
- It has a periodicity which generally in one current year. For example : The 1999 Ethiopian budget year extends from Hamle 1, 1998 E.C up to Sene 30, 1999 E.C
- It sets procedure in which the collection of revenue and administration of expenditure is to be executed.

Thus with these characteristics we can define budget as:

The main tool to administer finance, and is an annual statement of government fiscal policies, revenue and expenditure.

5.2 Importance of Public Budget

As you know every nation needs to achieve many goals (to achieve rapid development, to rise per capital income, remove poverty, to achieve higher employment etc), but due to the existence of scarcity of resources it is impossible to achieve all this goals at a time. A proper plan of action

is therefore necessary. A budget is a short term plan which explicitly mentions the programmes that are to be taken up in the course of the fiscal year, it specifies what part of different programmes to be completed within the year, it clearly draws up schemes of revenue sources for these programmes and how this programmes to be implemented by the responsible bodies. There for, public budget enables countries to:

- To use their resources efficiently by setting the physical targets for different actions considering different factors, It may be formulating the programmes on the basis of past experience
- To avoid arbitrary use of resources
- Avoid corruption. Because at the end of the budget year ,the government and its various departments know that they are responsible to the legislature for their action and budgetary performances
- To achieve regional balance by reallocating funds

5.3 Principles of Budgeting

A principle of sound budget consists of wise spending and collection of revenue and involves the following principles.

- **Canon of Comprehensiveness:** according to this principle a yearly financial plan of a nation should include complete revenue and expenditure lists. It ought to be accompanied by an account of the performance of fiscal policies and programmers of the government during the previous year.
- **Canon of Exclusiveness:** this canon suggests that public budget should exclude matters out of finance
- **Canon of Unity** -according to this principle revenue should be recorded in a revenue account and expenditure ought to be recorded in the expenditure account.
- **Canon of Specification** -this principle suggests that every item of revenue should be specific, this means the type, and amount and time of collection ought to be determined. The same should be done for expenditure.
- **Canon of Periodicity** -this rule implies that government should prepare a yearly plan of revenue and expenditure.

5.4 Objective of Budgeting

As an instrument of economic policy, the objectives of budget are likely to be different in different countries and in the same country in different situations. It depends on the economic and social policy of the government. In developing economies the objectives may be economic growth, reduction of unemployment and reduction in economic inequalities; but for developed nations which are operating at full and near full employment level the is maintaining full employment. Budget as an annual financial plan for a specific period of time containing estimates of revenue-expenditure of various departments of the government; it high lights the decision and policies of the government required for achieving the desired objectives. Thus budget as a crucial and imperative instrument of economic policy would involve the following objectives.

- Building of economic overheads: In less developed countries, there is scarcity of economic overheads. Thus budgetary provisions help to build infrastructures, which in turn make important influence on industrial and agricultural development.
- Balanced development: developing countries suffer from regional imbalance in economic development. Therefore, government budget can correct these geographical back ward regions
- Poverty reduction: poverty removal programme is a part and parcel of the budget in less developed countries. All expenditure measures are designed so that they directly or indirectly influence reduction of poverty in the country.
- Full employment and price stability: A significant function of the budget is to secure the objective of full employment and price stability
- Check on misuse of public goods: No doubt budget is a financial plan relating to public revenues and expenditures. Thus it is a check whether the collected revenues are used for the proposed objectives in an efficient way or not
- Development of human capital: Skilled human labor is most important for any countries development more than anything. Thus budget provisions can go a long way to serve the purpose

5.5 Types of Budgeting

Multiple and unified budgets

In some countries of the world, for instance U.S.A, there was traditional way of preparing budgets in parts and presents each part separately in order to evaluate specialize function of the government This types of budgets are said to be **Multiple budgets**. However, in now a day a type of budget that has got favor is a **united budget**. In this case a budget is prepared in a united way; important sub portions are classified and presented separately under it.

Revenue (current) and capital Budgets

In various countries of the world, the budget is categorized in to

- Revenue
- Capital account.

Revenue budget- includes those items that have recurring nature. This means it incorporates tax as well as non-tax revenue and the expenditures financed with revenue receipts. Current expenditures, which are financed out of these revenue receipts, are all sorts of administrative as well as defiance expenditures and debt services. They are also known as non-developmental expenditures.

Capital budget- includes these items that have a nature of acquiring and disposing capital assets. This means it consists capital account receipts such as market loans, borrowing from National Bank of a nation, through the sale of Treasury Bills, and others in order to finance capital expenditures that are intended for the creation of capital assets in the economy. They contribute to increase the productive capacity of the nation and hence, are said to be developmental expenditures. Expenditure of on construction of dam, building, and irrigation agricultural and industrial activities are examples capital budget.

Functional Budget-

It is classified based on the purpose of the expenditure. This classification covers only the expenditure. The UN Bureau of Economic Affairs, in it's " Manual for Economic and Functional classification of Government Transaction 1959" groups expenditure under five headings namely general services, community services, social services, economic service and un allocable (quoted in Bahtia, 2002).

However, the National Council of Applied Economic Research in its Economic functional Classification of Central and State Government Budget 1957-58 did not include the group of

community service. It distributed these services in to social or economic services accordingly. (Bhatia, 2002, p. 263). Therefore, the functional classification of spending has been divided in to four groups as shown below.

General services: this group incorporates expenditures on civil and defense activities such as general administration, tax collection, police defense, mint and currency, external affairs, provision for against natural disasters etc.

Social Services: this group involves expenditures on services like education, health, family planning, housing, library (public), broadcasting, employment program, and nutrition program for children, relief expenditure for disabled persons and etc.

Economic Services: this category involves all spending which facilitate economic activity directly or indirectly. They are divided into agriculture, industry, transport and communication, and other economic activities.

Un allocable: this group involves those items that cannot be categorized under the above groups. These are interest payment, pension, food subsidies, special loan, aid to foreign nations etc.

Now you have completed the fourth section of this unit. So, do the following self-test questions to see how you have understood the types of budget?

5.6 Procedure of Budgeting

One of the most important factors which affect economic growth is inefficient utilization of limited economic resources, Therefore, any country has to control its expenditure in such a way to buttress its growth. There are different stages of controlling public expenditure. These are:

Budget preparation- it is the first stage of controlling annual financial Plan.

The Ministry of Finance prepares the National budget.

The main target of budget preparation is to:-

- Make the plan to spend and raise revenue systematically.
- Show economic, social and other government policies.
- Provide consistent means for auditing and careful implementation of financial plans.
- Get approval and power from the legislature to raise the said revenues and spend them etc.

Approval of Budget- it is the second stage that implies the presentation of budget to the parliament and getting approval. The Minister of Finance presents the budget. The initial speech that it makes is emphasized on overall economic and related conditions of the nation and the main budgetary. Finally, the budget is approved by the parliament and assumes the power of law.

Execution of Budget- is the third stage of control over of public expenditure. The implementation of the budget will be started after it is approved but with great commitment to avoid wastage.

Auditing of Budget- is the fourth stage of control over of government spending. In this stage the auditor audits government account and prepare the audit report. This enables government to see the area where wastage exists and to correct it.

Chapter Six

6. Public Debt

6.1 Nature and Kinds of Public Debt

Chapter Objectives

After studying this chapter, you should be able to

- Explain the objectives of public debt
- Explain the nature of public debt and the burden of public debt
- Discuss the effects of public debt on consumption, distribution, production and on economic activities.
- Discuss the different methods of redemption of public debt and estimating debt burden of a country.
- Explain the differences of taxation and public debt
- Explain the role of public debt in economic development

Public debt is of recent growth and was unheard of prior to the 18th century. In modern times, however, borrowing by the States has become a normal method of government finance along with other sources such as taxes, fees, etc. The government may borrow from banks, business houses, other organizations and individuals. Besides, it can borrow within the country or from outside. The government loan is generally in the form of bonds (or treasury bills if the loan is required for short periods) which are promises of the government to pay to the holders of these bills the principal sum along with interest at the stated rate. Borrowing is resorted to in order to provide funds 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 by the state exchequer.
2. The government borrows a certain amount now but promises to pay in the future not only the principal amount but the interest also.
3. The government borrows when there is a budget deficit i.e. public expenditure is more than revenue.

Classification of Public Debt

Public debt can be classified in different ways according to various factors like sources of borrowing, purpose of loan, the term duration of loan provision for repayment, nature of contribution, marketability.

1. Source of Borrowing (internal debt and external debt).

There are two sources of public debt, internal and external. Internal debt refers to public loans floated within the country, while external debt refers to the obligations of a country to foreign governments, or foreign nationals or international institutions. Though external debt is becoming very common these days, there has been general prejudice against foreign debt, based on ignorance and faulty economics.

2. Purpose of the loan (Productive and unproductive debt)

Public debt is said to be productive if the investment yields an income which will not only meet the yearly interest payments of the debt but also help repay the principal over the long run. All public debt can be said to be productive in another sense too. The government may undertake certain projects through loans which may not be productive in the sense given above but which may be really useful to the community – for example, a railway line connecting a backward region, an irrigation work to prevent famine conditions in an area, and so on. In this sense all public debt is productive. But in many cases, public debt may be contracted during war-time to finance war. Such debt is unproductive because it does not create an asset; it is a dead-weight debt or a useless burden on the community.

3. Funded debt and unfunded or floating debt.

Broadly speaking, funded debt is a long-term debt, undertaken for creating a permanent asset and the government normally makes arrangements about the mode and the time of repayment. Unfunded and floating debt is a relatively short-period debt meant to meet current needs. The government undertakes to pay off the unfunded debt in a very short period, say, within six months. Treasury bills are examples of unfunded debt. The rate of interest on unfunded debt is lower.

4. Time Duration of loan (short, medium, and long term loan).

According to time duration of the loan, public debt can be classified into short term, medium term, and long term loans. Short term loan is usually incurred for a period varying from three months to one year. Usually government gets such loans from the central (national) 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.

Medium term loans are those which are obtained for more than one year but less than ten years. Usually the governments borrow only long term loans for more than ten years. The maturity period is long so that the rate of interest tends to be higher on the long term loan than short term loan. Long term loans are incurred to finance development schemes.

Causes of public debt

Public loans in modern times are necessary to meet difficult situations. In the first place, modern governments do not have any large accumulated balance or treasure to meet a budget deficit. Normally, the annual expenditure of the government should be and is met by annual income. But because of many circumstances the yield from taxation and other sources may not be equal to the actual expenditure. Similarly, there may be unplanned and unexpected emergency situations like major fires, floods and famines. It may not be possible to secure funds through taxation. Short-term borrowing in anticipation of tax collections in subsequent years is ordinarily used in the above two circumstances.

Secondly, a factor which necessitates public loans is war. Modern warfare is so costly that the normal income through taxation falls short of the actual war expenditure. A public loan is a better and easier method of collecting revenue than taxation. Governments, therefore, have to

borrow extensively from individuals and institutions towards war financing. In fact, the enormous increase in public debt in most countries is due mainly to the First and Second World Wars.

Thirdly, public borrowing is considered very useful to remedy a depression. Business depression and unemployment are generally due to deficiency of demand for goods and services. Keynes advocated increased public expenditure financed through borrowing and not through taxation. For, while taxation will reduce the incomes of the public and their demand still further, borrowing will have no such effect. Besides, loans enable the government to make use of idle and unutilized funds of the public.

Finally, public loans are resorted to for development purposes. Underdeveloped countries interested in the development of their natural resources to the optimum level find public borrowing a very useful device to finance the various development projects. In countries like Ethiopia, public debt has been increasing in recent years because of this factor.

Sources of Public Borrowing

Every government has two major sources of borrowing-internal and external. Internally, the government can borrow from individuals, financial institutions, commercial banks and the central bank. Externally, the government generally borrows from individuals and banks, international institutions and other governments. When individuals purchase government bonds, they are diverting fund from private use to government use. More important than individual subscribers to government bonds are the financial institutions such as insurance companies, investment trusts, mutual savings banks, etc. These non-banking financial institutions prefer government bonds because of the security provided by the latter and also due to their high negotiability and liquidity. While individuals and non-banking financial institutions take up government bonds out of their own funds, the commercial banks can do so by creating additional purchasing power-known as credit creation. The central bank of the country can subscribe to government loans. By purchasing government bonds, the central bank irradiates the account of the government. Borrowing from the central bank is the most expansionary of all the sources, for not only the government secures funds for its expenditure but the commercial banking system gets additional cash which can be used as the basis for further credit expansion.

Government may borrow from other countries too to finance war expenditure or to pay for development projects or to payoff adverse balance of payments. Two important sources have

become prominent. They are: (a) international financial institutions, viz., the IMF and World Bank, which give loans for short term to payoff temporary balance of payments difficulties and for long term for development purposes; and (b) government assistance generally to assist in development projects. For developing countries like Ethiopia, external sources of borrowing are becoming considerably important in recent years.

6.2 Effects of Public Debt

Public borrowing from individuals and firms has effects on all aspects of economic life. They may be considered as follows:

1. **Effects on consumption.** The effect of public debt on consumption depends upon how it is financed by individuals. If they lend to the government out of their idle savings, consumption is not affected. If they buy out of past savings it has only a limited impact on present expenditure. But if they lend by cutting present savings, it may make them feel less secure and so they may reduce consumption. But if the people feel that they have invested in government securities which are considered safe investment, they may actually increase their consumption.
2. **Effects on Production and Investment.** The effect of public debt on production depends upon whether it affects private investment or not. If people buy government bonds by selling their shares or debentures in private individual firms, there is an adverse effect on private investment. But if the money borrowed by the government is for productive purpose, overall production is not affected. But if it is used for wasteful or non-productive purpose, total investment is affected negatively.

If people buy government bonds by taking away their bank deposits, bank's lending capacity is reduced and this again affects private investment. Private investment is not affected only when it is financed by people out of their idle funds.

If the government uses the funds for productive purpose, it can repay it out of income generated by these projects. But if public debt is used for unproductive purposes, it can be repaid only by through additional taxation in future which affects future consumption as well as production by reducing future disposable incomes. However, if public debt is used for welfare schemes, it may increase people's efficiency to work and thus improve productive capacity.

- 3. Effects on Distribution.** Public debt is bound to have effects on distribution of income because it involves transfer of purchasing power from one sector to another. Usually government bonds are purchased by the richer section. But the burden of tax to repay the debt falls on all sections including the poor. To that extent the inequality of income will increase. If the bondholder and taxpayers is the same people, theoretically there will be no effect on redistribution of income. Hence redistribution of income effects of public debt depends upon whether the taxpayers and the bond holders are the same people or not.

However if the public debt is used for public welfare programmes especially the poor, inequalities of income decreases. But if public borrowing creates inflation, the beneficial effects of redistribution will be neutralized as prices rise.

- 4. Effects on National Income.** Public debt has an adverse effect on national income only if private investment is adversely affected. However if government expenditure is incurred on capital goods, it gives incentive to greater production and this again increases the income. Government investment financed by public debt will have a multiple effect on national income. If public debt is financed by commercial banks and national banks, the credit creation and the public expenditure from that will have a very large expansionary effect on national income.
- 5. Effects on Resource Allocation.** Unlike tax finance, public debt has little effect on resource allocation. Public borrowing curtails business investment activities but the decline of business investment varies from one industry to another. Allocation of resources is not affected much.
- 6. Effects on Liquidity.** Effect of public debt on liquidity is favorable because the governments bonds are liquid assets which can be sold in the market whenever the bondholders need money. So public debt increases the volume of liquid assts in the country. Secondly the larger quantity of such liquid government bonds can result the failure of monetary policy. For example, when national bank tries to control inflation through monetary policy tools like bank rate, the commercial banks can increase their cash reserves by selling government bonds.
- 7. Effects on Money Market.** The government has to compete with the private sector for fund. Usually if the rate of interest paid by private sector on borrowing is high, the

government also will have to rise its interest rate to attract public funds. On the other hand if the state tries to borrow from commercial banks and national banks, more than what is available at current rate of interest it results in currency expansion.

6.3 Burden of Public Debt

There has been considerable confusion as regards the burden of public debt. Two extreme views have been held, the traditional view and its counterarguments. The traditional view is that public debt, as in the case of private debt, imposes a real burden on the community. This opinion is based on the following assumptions:

- (a) Public debt necessitates a transfer of funds from the private sector (individuals and companies) to the Government in the form of additional taxation;
- (b) Public debt is a more costly method of financing public expenditure than taxation because of the additional cost of interest payments;
- (e) Public debt tends to transfer the burden of a particular outlay to future taxpayers; and
- (d) Excessive borrowing by and huge public debt of the Government, may undermine the credit worthiness of the Government. The traditionalists, therefore, conclude that public debt should be kept to the minimum and should be redeemed as early as Possible. The other extreme view-held by some modern writers – is that internal public debt is not burdensome, since payment of interest and the use of taxes to meet the same involve simply a transfer of funds between people within the country. People will be receiving interest from the Government for the bonds they hold but will be paying taxes to meet interest obligations of the Government. In other words, it is almost like transfer of funds from one pocket to another, or from one individual to another. The result is that the internal public debt does not impose a real burden on the community. Both these apparently conflicting views on the burden of public debt can be easily shown to be wrong. For this Purpose, it would be convenient and useful to adopt Dalton's distinction between direct and indirect burden of public debt and between money burden and real burden of public debt. We can, therefore, speak about four types of burdens of public debt, viz.,

- (a) Direct money burden,
- (b) Direct real burden,
- (c) Indirect money burden, and
- (d) Indirect real burden.

(a) Direct Money Burden. Public debt involves payment of interest and repayment of the

principal by the government, who will have to raise the necessary amount by way of taxes. The direct money burden of public debt consists of the tax burden imposed on the public and it is equal to the sum of money payments for interest and repayment of principal. Actually, in the case of an internal debt, there can be no direct money burden because all the money payments (taxes) and receipts (interest) cancel out. Suppose the government of Ethiopia collects taxes to the extent of Birr 1000 million a year from the general public towards its debt services. This amount is transferred from the public to the government. But the latter distributes this amount to the general public by way of interest on its loans. Thus servicing of internally held public debt is reduced to a series of transfers of wealth between parties – total receipts will necessarily be equal to total payment. There would, therefore, be not net direct money burden in internal debt. On the other hand in the case of an external debt, money payments by the debtor nation (say Ethiopia) are to external creditors (say, Americans); these constitute clear direct money burden of public debt on the debtor nation.

(b) Direct Real Burden. When we refer to monetary transfers between taxpayers and creditors we are speaking about the direct money burden. But when we refer to the distribution of taxes and public securities among the public, we are referring to the real burden of public debt. We know that people hold public securities (and get interest from the Government) but they also pay taxes towards the cost of the debt service. If the proportion of taxation paid by the rich towards the cost of the debt service is smaller than the proportion of public securities held by them, while on the other, if the proportion of taxation paid by the poor and middle income groups towards the cost of the debt service is greater than the proportion of public securities held by them, there is a direct real burden from public debt. In this case, public debt has been responsible for worsening inequality of incomes. Suppose, on the other hand, government bonds and securities are held by the working classes and the middle income group (and, therefore, they receive the interest) while the taxation towards the cost of debt service is paid by the rich (by way of income tax and the other highly progressive direct taxes) then public debt actually tends to decrease the inequality of incomes in the country. In this case there is actually no direct real burden but there is a direct real burden to the community. Thus whether internally held public debt imposes a direct real burden or provides a, direct real benefit will depend upon the distribution of taxation on the one hand and ownership of public securities on the other, among different sections of the community. Dalton argues that in most modern capitalist or mixed economies, with large inequality of

incomes, internally held public debt will generally result in transfer of money from poorer to richer sections of the community and hence will impose a direct real burden because:

(i) The bulk of the government bonds and public securities will generally be held by the richer sections of the community, directly or indirectly, (through their ownership of banks and insurance companies which hold public securities among their assets); and

(ii) Even the most progressive of taxation cannot fall so heavily on the rich as to counterbalance, among the richer classes, the income derived from public securities.

We may now refer to the direct real burden of external debt. In the case of external debt, there is a transfer of payment from the debtor country to the creditor country. The direct real burden refers to the loss of economic welfare which these money transfers involve. In case the money payments for servicing external debt are made by the richer classes, the direct real burden will be less; if, on the other hand, they are contributed by the poorer sections of the country, the direct real burden will be much more.

(c) Indirect money and real burdens. Heavier taxation to meet debt charges may reduce taxpayers' ability and desire to work and save and thus check production. Heavy debt charges may also force the government to economies on public expenditure as might promote production. In case these adverse effects of taxation could be neutralized by some favorable effects of public expenditure, the indirect burden of public debt can be cancelled out. In practice, however, this may not be possible. In the case of external debt, indirect money and real burden arise from checks to production because of additional taxation (to pay for debt charges) and to possible economies which government may effect in desirable social expenditure.

Burden of External Debt

In one sense, the burden of a foreign debt is similar to that of domestic debt. That is, the government will have to pay it through additional taxation. But, while in domestic debt, interest payments and the repayment of loans are available to local nationals; in the case of foreign debt they are available to foreigners. In another sense, the total money burden of an external debt is more because there is the additional transfer problem. That is, the government will have to find necessary monetary resources to pay off the external debt and besides will have to secure foreign currencies too (after all, foreigners will have to be paid in their currencies). The transfer problem, therefore, requires that during the term of the loan, the balance of trade must become favorable. In other words, a regular payment of interest and principal to foreign countries will be possible

only if the export value exceeds the import value by at least the obligations arising from the loan. But external debt can mean a certain impoverishment of the economy. The payment of interest and debt redemption to foreign Countries means a corresponding exhaustion of national income and makes greater demand on the gold and foreign exchange resources of the country. This is what has been referred to as the transfer problem in the previous paragraph. But properly speaking, there is no impoverishment involved. What actually happens is this: originally, when foreign loans were made, they entered the debtor country in the form of machinery, raw materials and other essential goods, for which no corresponding exports were made at that time. After the lapse of a certain time, the debtor country manages to secure excess of exports over imports to pay for the external loan. In this case, there is no actual impoverishment of the economy involved but goods are paid for goods. But if the external debt would really deprive the citizens of a debtor country of a certain amount of, goods and services, this would be a net direct real burden of an external loan.

However, there is one sense in which an external loan can be a source of trouble to a debtor country. The transfer problem necessitating the creation of an export surplus means “an exhaustion of the country’s future capacity to import,” which is of vital importance for development. But if the foreign loans are floated only when it is absolutely essential and when internal resources are utilized as far as possible, and if the foreign loans are used to increase the total national product, including goods specially meant for export, there is no reason why the debtor country should suffer in the future.

An underdeveloped country which borrows abroad for the development of social and economic overheads and basic industries will find that the benefits outweigh the burden of repayment of the loan. Thus, an external loan for development purposes is not a burden but a profitable venture. This is exactly like an internal loan meant for development purposes.

Measurements of debt burden.

There are various ways of estimating the burden of public debt. Three simple methods are suggested.

1. The first method is to consider the ratio of aggregate public debt to national income i.e., P/Y , where P is the quantum of public debt and Y is the national income. If changes in the quantum of public debt are greater than the change in the national

income, the net relative burden can be said to have increased. This is the simple, yet commonly adopted method.

2. The second method considered the interest paid every year on public debt as proportion of national income i.e., I/Y where 'I' is the interest payment or debt service charges and 'Y' is the national income. This method gives an idea of the extent of burden from the point of view of debt service charges.
3. The third method considers the ratio of debt service charge (I) to total public expenditure in a year I/E where 'I' is interest payment on debt and 'E' is public expenditure. This method has the advantage of comparing the cost side i.e. interest charges in relation to benefit side i.e. public expenditure.

Can the Future Generation be made to bear the burden of Public Debt?

It is often contended that the burden of public debt can be shifted "to make posterity pay" the debt of the present generation. The argument assumes that taxation imposes a direct burden on the present generation while government borrowing does not impose such a burden. Suppose public expenditure is financed out of taxes, the benefit of public expenditure as well as the burden of taxation will fall upon the present generation. On the other hand, in the case of debt financing of public expenditure, the benefit of public expenditure will accrue to the present generation but the burden of taxation to pay for the interest and repayment of principal will fall upon the future generations. Financing of investment projects such as construction of irrigation works, rail and road construction, etc., though borrowing is sought to be justified on the ground that (a) the benefit of public debt accrues to future generations, and (b) the burden of servicing and repaying public debt would, therefore, be borne by the future generations. This line of thinking is obviously wrong and cannot be maintained.

In the first place, real resources required by the government for war, economic development or any other purpose have to be obtained now and at the immediate cost of the present generation, whether they are derived from taxation or borrowing. Borrowing is only an alternative to taxation for diverting real resources from private sector to the government. The present generation will have to transfer these resources to the government either through taxes or through loans and will, therefore, have to suffer a loss of resources. In other words, the present generation will have to bear the burden of public debt and the question of shifting it to the future

generations does not arise. Secondly, there is no direct money burden of public debts on the future generations. As we have seen earlier, the burden of taxation to pay for public debt is cancelled out by the receipt of interest from the government. While some groups in the future pay taxes some others will receive interest. The question of shifting the burden to the future generations is actually confusing.

It is, however, possible to argue that under tax financing, the present generation will have to curtail its consumption, but in the case of debt financing there will be no such reduction of consumption. The assumption here is that those who are paying taxes do so out of their current income and, therefore, reduce their consumption expenditure but those who are subscribing to public debt do so out of their savings. Debt financing leaves in the hands of public debt owners bonds and other securities which they consider as part of their wealth. While tax financing makes the general public poorer and, accordingly, reduce their consumption, debt financing does not have such a result since the owners of public debt do not feel that they are poorer. In fact, they have bonds and securities in lieu of funds transferred to the government. Under debt financing, therefore, consumption is not likely to fall. In this sense, tax financing imposes a real burden on the present generation, while debt financing does not impose such a burden on the future.

Suppose, the present generation reduces its savings to subscribe to public debt, and suppose further that as a result of reducing saving and capital formation, the capital stock of future generation is reduced. In such a case debt financing can impose a heavy indirect burden on the future generation. On the other hand, if the present generation reduced its consumption, to subscribe to public debt, saving and capital formation would not be affected and the future generation would not be burdened through inheritance of reduced capital stock. The above analysis is defective since the expenditure side of the government is ignored. If the government resorts to debt financing for planned economic growth and accumulation of capital stock, the benefits will be available to the future generations and there will be no real burden from such debt – for the loss of welfare through taxation will be more than made good by benefits from government investment.

Only in the case of external debt the burden of public debt can be passed on to the future generations. When a country raises resources in foreign countries for war, the present generation receives additional resources and, therefore, need not curtail its consumption or saving. The

future generations will have to pay the interest and also repay the principal, and hence the burden of external debt is on them. But in case the country has borrowed in a foreign country for development purposes (as in the case of India), the future generations may not feel the burden on account of increased productivity which external borrowing has made possible.

Generally, therefore, the burden of public debt cannot be shifted from one generation to another. We cannot “make posterity pay”. Nor is it normally correct to make the future pay for policies taken now for which the future has no control or influence.

Can a Country Become Bankrupt?

Sometimes people assert that with mounting public debt, the nation would become bankrupt. This is partly true and partly untrue. If bankruptcy means inability to return the amount borrowed, a country can never become bankrupt, however much its domestic debt may have gone up. The government can always honor its obligations either through higher taxation or through printing of money. It has the option to impose a heavy capital levy and pay off the debt at one stroke. Even repudiation of public debt – though morally indefensible – will be justified, since, after all those who receive interest payments from the government will have to pay taxes to enable the government to pay the interest. Will it not be better to cancel the debts altogether or at least scale down considerably so that interest receipts as well as tax payment will be proportionately cut down? In any case, a government does not become bankrupt because of its internal debt.

Debt Trap: However, there may be circumstances when a government may not be able to honour its obligations to foreign countries. When interest on foreign loans and repayment of debt amount to a considerable figure and when adequate export surplus has not been built up for various reasons a debtor country may be unable to honour its obligations. Either it can ask for postponement or raise new foreign loans to repay the old ones. This has come to be known as the “debt trap.” Many South American countries are caught in this trap. Only in extreme cases, it may repudiate external loans. Repudiation is an extreme measure, since the country loses its creditworthiness in the international capital markets and will never again be able to borrow from foreign sources.

6.4 REDEMPTION OF PUBLIC DEBT

Experience shows clearly that mounting public debt has demoralizing effects of the people apart from the fact that the public is subjected to higher rates of taxation. Besides, 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. The various methods available to the government to pay off its debt are:

- (i) **Repudiation of Debt.** Repudiation of debt means simply that the government 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 and 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 obligation may be strong at certain times. Of all the methods of redeeming debt, repudiation is the most extreme.
- (ii) **Conversion of Loans.** Another method of redemption of public debt is known as conversion of loans, that is, an old loan is converted in to a new loan (in a broad way, conversion is the same as refunding debt; i.e., repayment of a debt through 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/or
 - (b) When the current rate of interest is lower than the rate which the government is paying for its existing debt, so that the government can reduce its interest obligations. 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.
- (iii) **Serial Bond Redemption.** The government may decide to repay every year a certain portion of the bonds issued previously. Therefore, a provision may be made so that a certain portion of public debt may mature every year and decision may also be made in the beginning about the serial number of bonds which are to mature each year. This system enables a portion of the debt being 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.

- (iv) **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 pay off government loan bonds from the market where they are bought and sold. It is a good system, provided the government can secure budget surpluses. The only defect of this method of canceling debts is that it is not systematic.
- (v) **Sinking Fund.** Sinking fund is probably the most systematic and, therefore, the best 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. Suppose the government floats a loan of Birr10 billions, 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 fund grow till after 10 years it becomes equivalent to the original amount borrowed; at that time, that debt will be paid off. One danger of the sinking fund methods 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.
- (vi) **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 is incurred during a war to prosecute it and hence is quite heavy immediately after 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 and 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 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 had paid by way of a special levy.

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 heavy tax burden which will otherwise be necessary to redeem public debt. But the danger of a capital levy is that the government may be tempted to resort to it too often.

- (vii) **Redemption of External Debt.** The redemption of external debt can be made only through accumulating the necessary foreign exchange to pay for it. This can be done by creating export surpluses. Towards this end, foreign loans should be carefully invested in those industries which have high productive potentialities and which will promote exports directly. At the same time, the exportable surplus should consist of goods which can be really taken by foreigners. Temporarily, of course, redemption of an old debt can be made through the floating of new loans.

Of the various methods available to a government to payoff its debt, 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.

6.5 Public debt in a developing economy

Public borrowings may be for short and long periods but we are interested only in long-term borrowings for purposes of investment. Since voluntary loans come from voluntary savings, the scope for domestic borrowings will be limited. The reasons for this are not far to seek: low income levels of the masses, very low savings of the peasants and the middle classes, the perpetual attempt towards higher consumption, etc. The small minority of the rich does save a considerable portion of their incomes, but these savings are not generally available to the government. The only good source for the government is the banking system and the financial institutions. But the banking system is still undeveloped and the financial institutions are too few to be significant.

Even though domestic borrowings may not be of much importance during the initial years of economic development, its importance would grow as time passes. With increased tempo of economic development incomes rise and savings also rise. The government tries to stimulate savings through educative propaganda, tax concessions and exemption, etc. Besides, the

government promotes the setting up of a sound banking system and a well-organized money and capital market and a whole set of financial institutions/financial intermediaries. These institutions help in the mobilization of savings and make them available for investment.

Public Borrowings from Foreign Sources

A developing country borrows from three foreign sources: Foreign capital markets, foreign governments and international institutions. In the past, governments generally floated loans in foreign capital markets and expected the foreign nationals to subscribe to them. But nowadays the demand for funds is so large and political and other difficulties are so numerous against private foreign investment that prospects of investment of funds by foreign nationals and institutional investors in government securities seem to be not attractive. The government of a developing country can lessen political and social unrest and economic instability by appropriate measures but it would be difficult to convince foreign nationals and make them accept government bonds as riskless. After all, the repayment of interest and principal over the long period implies a high degree of risk and what guarantee can there be in the promises of a government which may be overthrown by another in no time.

In recent years, advanced countries are taking great interest in the economic development of underdeveloped and developing countries. Intergovernmental loans are becoming very significant these days. Besides, international institutions, such as the World Bank and the I.D.A, Asian Development Bank (ADB) etc., are important sources from which developing countries draw for purposes of development. But these institutions insist upon certain minimum conditions before granting loans and many developing countries may not be able to fulfill them.

Conditions Necessary for Foreign Loans

Foreign loans enable a developing country to secure capital and technology which it cannot get internally and which are so essential for economic development. But the total burden of a foreign loan is higher than that of an internal loan of equal extent, because the former involves also a transfer problem. Besides, debt redemption to foreign countries means a corresponding exhaustion of national income and moreover makes greater demand on the gold and foreign exchange treasures of the country. It is essential therefore, that great care is taken in the matter of securing foreign loans. It is but natural that certain internal conditions are fulfilled so as to justify foreign loans.

(a) The foreign loan should be used to stimulate economic growth directly. This will facilitate repayment later.

(b) The foreign loans should be invested in such a way that the country secures a favourable balance of trade in the future. This is necessary, as we have pointed out earlier, because foreign

loan involves a transfer problem, viz., the necessity to transfer from the debtor country to the creditor country. This would further necessitate the excess of exports over imports.

c) Foreign loans will be justified only if the productive resources of the country are insufficient to bring about a planned pace of growth. This is so because the gross burden of foreign borrowing is higher than that of domestic borrowing.

A backward country is not justified in borrowing from abroad unless internal sources are inadequate and there could be proper use of loan proceeds. The existence of an adverse balance of payments alone cannot be a sufficient reason for borrowing. It is not really necessary that foreign loan should be used on projects which will increase exports and check imports and thus help in remedying adverse balance of payments. What is required basically is the development of the total national product and not be development of exports only. However, there may be circumstances under which even a temporary adverse balance of payments may have serious adverse effects on economic development. Foreign borrowing will be justified here, again, not to remedy adverse balance of payment but to prevent internal disturbances.

Public Debt management

Public debt management refers to important policy decisions to be made with regard to public debt. This is an important aspect of modern public finance as it is now accepted that public debt is an active fiscal tool just like taxation and public expenditure, all of which have varied effects on the economy. Hence the floating and repayment of debt should be carefully planned. The forms of public debt, the terms of loan with regard to interest and duration, the ownership pattern are all crucial issues in management of public debt. In short public debt management is concerned with the policy decisions on the structural characteristics of public debt.

Objective of public management

Public debt management can help the Government to achieve several goals. Important objectives of public debt management in this respect are:

1. It should not have any adverse effect on the economy, especially on willingness and ability to work and save
2. During inflation public debt management should aim at curtailing aggregate demand
3. During depression it should help to raise aggregate demand in order to improve employment.
4. Public debt management can help to secure funds during War.
5. It should go hand in hand with monetary policy to strengthen the money market.

Principles of public debt management

Phillip E. Taylor points out that a general principle of public debt management should be to get loans from the public without undue coercion or force. The raising of loans by the government as well as its redemption should not interfere with the smooth functioning of the economy. The government should not enter the loan market when it is not convenient to do so. Accordingly following principles of Public Debt management can be stated.

1. **Minimum interest cost.** The first principle of public debt management is that the government should keep the interest cost of the loan at the minimum. If the interest is low, it will impose less burden of taxation at the time of redemption
2. **Satisfaction of investor's needs.** Public debt should be managed in such a way that the needs of different types of investors should be satisfied with regard to the type of securities as well as general terms. The terms of loan should attract the public to invest in government securities.
3. **Funding of short-term debt into long-term debt.** Public debt management should enable the Government to convert short-term loans into long-term loans. But such funding operations should not harm economic stability because the conversion of short-term loans into long-term loans will necessarily result in a rise in the interest rates. This rise in interest rate on Government securities will affect the volume of private investment. The low demand for short term securities will reduce their interest rate and may even make such funds go out of the country.
4. **Co-ordination of public debt policy with monetary and fiscal policy.** Public debt management should not clash with monetary or fiscal policy. The Government may want to keep interest rates low. So it might advise the central bank to follow a cheap money policy of low interest rates. This will encourage inflationary trends. Such a problem can be avoided if there is a proper co-ordination of public debt policy with monetary and fiscal policy.
5. **Composition of public debt and maturity.** If the public debt programme results in a large proportion of short-term debt held by commercial banks, there will be a high degree of liquidity in the market. This can generate inflation. If the holders of such liquid assets try to monetize their debt obligations before maturity, controlling inflation will be difficult.

An analysis of the objectives and principles of debt management makes it clear that debt management is a subtle art. The basic requirement of an efficient public debt management is that from the time of floating the debt to its redemption, the strains and friction are kept to the minimum. Public debt has become an important instrument of fiscal policy and public debt management should be coordinated with general economic policy to realize maximum social advantage.

Chapter Seven

7. Deficit financing

7.1 Meaning of deficit financing

Learning objectives

After discussing these sections, you should be able to:-

- Know the meaning and different methods of deficit financing.
- Discuss the objectives of deficit financing.
- Explain the effects of deficit financing.
- Explain deficit financing and capital formation.
- Discuss deficit financing and economic growth.

Deficit financing has become an important tool of financing government expenditure. In simple terms it means the way the gap between excess of government expenditure over its receipts is financed. However the concept of deficit financing is interpreted in different ways in the western countries.

In the western countries whenever the public expenditure is greater than its revenue receipts, it is financed through public borrowing or creation of new money. Whenever there is deficit in the current account, its financing becomes deficit financing. Even public borrowing is a way of deficit financing.

In the modern sense public borrowings to finance excess of public expenditure over revenue is included in the capital account of the budget. After including these borrowings in the capital account, there may still be a deficit in the budget. The method adopted by the government to finance this overall budget deficit in the current and capital account together is known as deficit financing.

Thus budget deficit and deficit financing are two different concepts. Budget deficit is a narrower concept, referring to excess of public expenditure over current revenues. Most countries adopt a wider concept of deficit financing whereby any method adopted to bridge the budget deficit even after borrowings, becomes deficit financing. Further in the narrower concept, the budget deficit is managed through market borrowing out of public saving. So it is non-inflationary. But in the broader sense of deficit financing, it refers to borrowing from the

banking system. Hence it is inflationary in character.

Different Methods of Deficit Financing

Governments can adopt three methods of deficit financing and the impact is different in each case. Firstly governments can borrow from non-bank investors or commercial banks. This is considered non-inflationary as it tends to replace private expenditure. For example when government borrows from commercial banks, their liquidity is reduced so that it reduces loans to the private sector. Thus the government borrowing from commercial banks replaces private expenditure and hence it is non-inflationary. If the non bank investors get loans from the commercial banks against their fixed deposits and use it to lend to government it would be inflationary.

In the second case when the government draws from its cash balances with the central (National) bank it is not inflationary. But in the third method when the government borrows from the central bank against its securities, the central bank creates new money by resorting to the printing press. This would again result in a secondary reaction of expansion of bank credit. This type of deficit financing by loans from central bank tends to be highly inflationary.

7.2 Objectives of deficit financing

Deficit financing has been ascribed an important role in fiscal policy on account of increases in public expenditure on various accounts. The different objectives of deficit financing make it clear.

- 1. To finance wars.** Deficit financing has been found to be the simplest and quickest method to finance huge War expenditures. War time emergency makes it difficult for government to raise urgent resources through its usual methods of taxation and public borrowing. The funds obtained through deficit financing are used by the government to purchase goods and services to fight war. This raises the aggregate demand. Resources are mobilized by the government not for productive purpose but for war efforts which is unproductive. Thus the rise in aggregate demand and non-availability of sufficient goods result in an inflationary price rise. The experience of Germany during the two world wars is a classic example of the harmful effects of Wartime inflation. During First World War, the German paper Mark depreciated so much in value that one gold Mark could not be purchased by even one billion papers Mark. Similarly during Second World War, the ratio of gold to paper currency became as low as 0.01 per cent on account of deficit financing. However, wartime

emergency requires a quick mode of financing. Hence deficit financing cannot be avoided. Precautions should be taken to control private demand.

2. **To fight unemployment during depression.** Keynes advocated deficit financing as an important tool of solving the problem of involuntary unemployment during depression. This unemployment during depression occurs due to lack of effective demand since private spending is low. Therefore the only way to combat unemployment would be for the government to invest in public works programmed to create employment. Further during depression welfare payments to be made by the government would also increase. Government cannot get finance for this expenditure out of taxation or public borrowing as taxable capacity and ability to contribute to government loans is very low during depression. Hence the government has to borrow from the banking system. Thus deficit financing becomes the best mode of financing anti-deflationary expenditure. Keynes suggested that the investment undertaken by the government will result in a multiple increase in incomes via the multiplier effect. However the operation of the multiplier may not be that successful in underdeveloped countries as there is unutilized or idle capacity in both agricultural and industrial sectors. Supply of working capital is also very low. On the other hand marginal propensity to consume is very high. Thus Keynes' multiplier may actually raise the aggregate demand instead of raising the aggregate supply. Hence deficit financing to combat unemployment in underdeveloped countries requires great caution in handling so that inflationary pressures are not generated.
3. **To promote economic development.** Deficit financing can go a long way in promoting economic development in underdeveloped countries. There are two issues to be discussed here. First refers to the way in which deficit financing can be used to finance development projects. Second whether deficit financing for development results in inflationary potential. The major obstacle to development in these countries is low rate of capital formation which is not enough for sufficient investment to provide jobs for the large number of unemployed. With increasing population the level of unemployment also increases necessitating greater capital formation. Low incomes of people reduce the taxable capacity as well as ability to save. For the same reason, government cannot raise resources through public borrowing too. Hence deficit financing becomes the only way of mobilizing required resources, in developing countries.

Deficit financing can help to stimulate the rate of investment indirectly. Deficit financing for development first of all increases incomes and thus savings too. It results indirectly in forced saving too because when the government purchases goods and services for its projects, people do not get them. So the reduced private spending results in larger saving.

If the government uses deficit financing to undertake productive projects then output would increase and it may not be inflationary. But there are certain rigidities in the developing countries which do not result in complementary factors for investment. Firstly there is a lack of entrepreneurship and technical know-how. Secondly there is no adequate infrastructure such as organizations, market communications etc. These market imperfections fail to increase effective supply along with increasing demand and these causes rising prices.

Further elasticity of supply is not the same in different sectors of the economy. For example elasticity of supply tends to be low in agriculture than in industry. In the initial stages of development if the government expenditure is directed towards these sectors whose elasticity of supply is low, it is certain to increase incomes and demand in these sectors but lack of supply response would raise prices. In all these cases, if deficit financing used for development schemes results in inflationary price rise, the government should carefully raise taxation to siphon off the excess purchasing power in the hands of the people.

Another way in which deficit financing can promote development is when it increases the incomes of the entrepreneurs whose propensity to save is high. In fact this may result in greater inequality of income. But in the initial stages, higher propensity to save of the entrepreneurial class is a welcome feature in the interest of general economic development. This fits into the theory of imbalanced growth given by A.O. Hirshman.

In general it is accepted now that so long as care is taken to avoid inflationary potential, deficit financing is a very useful instrument of development in developing countries. Deficit financing should preferably be used for quick yielding projects in the initial stages so that the increase in production will control inflationary pressure. If development projects have long gestation period, deficit financing for such projects would bring in inflationary price rise. Hence in developing countries deficit financing should be carefully used in the initial stages to lay a good foundation for necessary infrastructure for development.

4. To mobilize surplus, idle and unutilized resources. Keynes had advocated deficit financing for the mobilization of surplus labour and other resources during depression. This

argument may be applicable to underdeveloped countries only with limitations. If deficit financing is used to employ such labour in the agricultural sector in these countries, it may create inflationary price rise.

On the other hand deficit financing is recommended for its ability to create new resources in these countries. When deficit financing raises prices in these countries, it reduces consumption and savings become forced. Thus deficit financing is recommended in developing countries for the mobilization of forced savings or for the creation of new resources, which again can be used for next stage of development. That is why W. A. Lewis said that "Inflation for the purpose of capital formation is in due course self-destructive".

5. **To finance the Plans.** In developing countries like Ethiopia which have adopted planned economic development huge resources are required for implementation of government investment. The government takes greater interest to create infrastructure, industrial development in vital sector besides transport and communication. Deficit financing is a useful tool to finance the Plans.
6. **To serve as an alternative tool.** Underdeveloped countries suffer from low taxable capacity and low savings. Hence government's ability to raise resources gets constrained. Therefore there is no harm in resorting to deficit financing as an alternative source of mobilizing resources besides taxation and public borrowing.

7.3 Effects of deficit financing

Deficit financing can make or mar progress if it is not carefully planned. It has diverse effects depending upon how it is handled. The major effects pertain to inflation and distribution of income.

1. **Deficit financing and inflation.** There are two views regarding the impact of deficit, financing on prices. The first view is that deficit financing is pro inflationary. This view holds that the first impact of deficit financing is on the creation of new money. Deficit financing is recommended for the creation of capital goods whose gestation period is long. There is increase in money incomes in this sector. But consumer goods producing sector does not respond quickly to bring more production. This results in rise in prices of consumer goods which may prove to be spiraling. The price rise will be greater if market imperfections exist as bottlenecks to increased production.

Further, a part of the increased incomes, in the absence of sufficient goods to spend, may be

channelized into commercial banks who may use it for further credit creation. In fact in developing countries the inflationary pressures are due to monetary expansion after deficit financing. Inflation then tends to be demand-pull type while deficit financing in developed countries causes cost-push type of inflation on account of long-term gestation projects.

The poor developing countries are not well equipped in terms of monetary and fiscal policy to control inflation. Hence there is a possibility that unabated inflation on account of deficit financing may hinder economic development of these countries.

The second view holds that deficit financing is not necessarily inflationary because public sector has emerged as a dominant sector in these economies. If this additional finance is utilized for productive purposes, it need not be inflationary. Deficit financing is required to provide finance for increasing output at stable prices. If deficit financing is not resorted to there may be a decline in prices which will have an adverse effect on output and employment.

W. A. Lewis points out that there are three stages in the impact of deficit financing. In the first stage, only capital goods industries are created through deficit financing and as they have long gestation, prices rise steeply. In the second stage, the rise in prices makes people reduce consumption which results in forced savings which increases investment. In the third stage, the capital formation of the first stage begins to bring consumer goods to the market which helps to lower prices. Therefore deficit financing is 'dangerous and painful' only in the first stage. In Lewis' view inflationary potential of deficit financing is therefore self-destructive. Others however point out that if the consumer goods are not increased in the second and third stages due to some constraints, inflation becomes rampant..

2. **Effect on distribution of income.** Deficit financing has certain undesirable effects on the distribution of income. Deficit financing provides incentives to entrepreneurs through larger profits on account of rising prices. But the same rising prices reduce real incomes of the wage earning class. This leads to a distribution of income in favour of the profit earning classes. Hence inequality of incomes widens. This is very much against the social objectives of equitable distribution of income and wealth.

Thus an analysis of the objectives and effects of deficit financing proves that it is a double-edged sword. Its effects can be good so far as it promotes capital formation and does not allow for a steep increase in prices. Its effects can be harmful if the inflationary potential goes uncontrolled, bringing about adverse effects on distribution of incomes and wealth, thus

increasing inequality. The exact impact of deficit financing depends upon the mode of deficit, governments' attitudes and policies, reaction of the private sector and growth of the public sector.

Deficit financing can be a very useful and effective fiscal tool for development in under developed countries if it is used only for capital formation to channelise resources into productive areas. The mild price rise on account of deficit financing in the early stages acts as an incentive to entrepreneurs to increase productive activity. Such a functional rise in prices is harmless.

7.4 Limits to deficit financing

It is now recognized that deficit financing is a bad master but can be a good servant i.e., it should be handled carefully without using it excessively. This raises the question as to what is the safe limit for deficit financing. Several factors are to be considered in determining the safe limit.

1. **Growth rate of the economy and money supply.** The money supply should expand to facilitate the growth rate of the economy. Suppose the total money supply in the economy is 4,000 million Birr and the growth rate of the economy is 5 per cent, it requires an additional money supply Birr. 200 billions per annum to sustain the growth rate. Hence deficit financing can be used to create Birr 200 billions per annum. But since it is used for productive assets creation, deficit financing can be even more than 5 per cent of the money supply. Thus even 7 or 8 per cent expansion in money supply on account of deficit financing need not be inflationary in developing countries.
2. **The efforts made by the government to mobilize its resources.** Deficit financing should be used only as a last resort after all alternative source of finances are exhausted. The public will not mind the effects of deficit financing when they know that the government has undertaken all efforts to mobilize other resources and only when they are exhausted, deficit financing is adopted.
3. **Control of incomes and prices.** Deficit financing to finance government projects enters the income stream in the form of wages and salaries. It is this increasing incomes and wages which exert an inflationary pressure. Hence a proper control over income and prices acts as a control over the inflationary potential of deficit financing.
4. **The growth of monetized sector.** It is the existence of a large non- -monetized sector which aggravates the inflationary potential of deficit financing. The extent to which the

non-monetized sector is brought into the ambit of monetized sector, acts as a safe limit to deficit financing.

5. **Increase in the production of public sector.** Deficit financing is incurred to finance public sector projects. If their production increases, this increase in production will cushion the inflationary potential of deficit financing. It is for the same reason deficit financing should not be incurred for unproductive purposes.
6. **Promotion of imports.** Deficit financing is bound to increase incomes in the initial stages which causes an increase in demand for goods and services. Since production does not increase immediately in the early stages, the inflationary pressures can be kept within safe limits by permitting import of goods. This of course depends upon the foreign exchange reserves to the country.
7. **Restriction on credit.** A large portion of new money created through deficit financing may reach the banking sector in which case it gives them an opportunity to create credit further. Restriction on credit can limit inflationary pressures.
8. **Direct and indirect control.** Government should adopt various measures to control prices directly and indirectly. Direct control refers to the control of prices beyond the stipulated levels. It is a type of administered prices. Indirect controls result in government's improving the public distribution system to supply goods to the people at reasonable prices.
9. **Public spirit of cooperation and toleration.** Some economists point out that "The role of public understanding and public cooperation is a factor in tending to diminish the price effect of deficit financing". Unless the government enjoys the public cooperation, it will have to face open, popular and political opposition to further use of deficit financing when the prices rise excessively. The spirit of tolerance on the part of public acts a limit on government's use of deficit financing.

In the final analysis the state of the economy, the purpose for which deficit financing is incurred, the control over money expansion, prices and incomes, the magnitude of the deficit financing, are all factors /which, limit the government's powers to resort to deficit financing excessively.

Chapter Eight

8. Fiscal Policy

8.1 Meaning Fiscal Policy

Learning objectives

After studying these sections you should be able to:-

- Discuss the meaning of fiscal Policy and its objectives in the developed and developing economies
- Explain how various fiscal instruments can be used to achieve economic development
- Critically examine the performance of fiscal policy in Ethiopia
- Explain how fiscal policy helps in achieving the objectives of full employment
- Discuss the importance of fiscal policy during inflation and depression
- Understand the limitations of fiscal policy.

Fiscal policy is defined by Arthur Smithies as "a policy under which the government uses its expenditure and revenue programme to produce desirable effect and avoid undesirable effects on the national income, production and employment". This definition acknowledges that the government expenditure and taxation are the two fiscal tools which can have desirable as well as undesirable effects on macro variables like income, production and employment. Otto Eckstein defines fiscal policy as "changes in taxes and expenditure which aim at short run goals of full employment, price level and stability". This definition adds two more goals of fiscal policy viz., price level and stability. Urusula Hicks broadens the scope of fiscal policy. She defines it as a policy "concerned with the manner in which all the different items of Public Finance ... may collectively be geared to forward the aims of economic policy". Thus besides public expenditure and taxation, public debt can be included as the third element of fiscal policy. Gerhard Colm therefore defines fiscal policy "as the conduct of the government expenditure, revenues and debt management in such a way as to take fully into account the effect of these operations on the allocation of resources and the flow of funds, and thereby their influence on the levels of income, prices, employment and production".

Fiscal policy differs from monetary policy in its mode of operation, Gardner Ackley points out "unlike monetary policy these measures involve direct government entrance into the market for

goods and services (in case of expenditure) and a direct impact on private demand (in the case of taxes)". Thus the impact of fiscal policy on aggregate demand is direct while the monetary policy can affect the aggregate demand only indirectly through the banking sector.

Fiscal Instruments

Government expenditure, taxation and public borrowing are three fiscal tools which act as levers to bring changes in income, employment and prices.

1) Public Expenditure

Government expenditure incurred in any way results in an increase in wages and salaries of its employees in the form of interest payment on debts or results in welfare payments like pensions or social security benefits. They tend to increase the disposable incomes of the people which cause an increase in the aggregate demand for goods and services. Thus an increase in government expenditure increases aggregate demand while a decline in public expenditure decreases aggregate demand. Therefore during inflation public expenditure should be reduced to control the demand-pull inflation. During depression public expenditure gains much importance. Keynes had established that the Great Depression of 1930s was caused by deficiency of aggregate demand. Private investment will be sluggish during depression. Expenditure on public works programmes must be increased to raise aggregate demand.

Government expenditure on public works programme or welfare benefits either way result in an increase in incomes. This increase in incomes causes an increase in consumption. Increase in consumption again results in the secondary increase in income. This income-consumption effect goes on and the initial increase in public expenditure brings about a multiple increase in income. This can be illustrated with the help of government expenditure multiplier.

$$Y = C + I + G \quad (1)$$

where, $C = a + bY$

$$I = \bar{I} \quad \text{where } \bar{I} \text{ is autonomous}$$

$$G = \bar{G} \quad \text{where } \bar{G} \text{ is autonomous}$$

$$Y = a + bY + \bar{I} + \bar{G} \quad (2)$$

$$Y - bY = a + \bar{I} + \bar{G}$$

$$Y(1-b) = a + \bar{I} + \bar{G}$$

$$Y = \frac{a + \bar{I} + \bar{G}}{1 - b} \quad (3)$$

Now if there is a change in government expenditure by ΔG , then new equilibrium income will

$$\text{be } Y + \Delta Y = \frac{a + \bar{I} + \bar{G} + \Delta G}{1 - b} \quad (4)$$

$$= \frac{a + \bar{I} + \bar{G}}{1 - b} + \frac{1}{1 - b} \times \Delta G \quad (5)$$

Subtracting (3) from (5) we obtain the change in income,

$$\Delta Y = \frac{1}{1 - b} \Delta G \quad (6)$$

$$\therefore \frac{\Delta Y}{\Delta G} = \frac{1}{1 - b} \text{ (Government expenditure multiplier)} \quad (7)$$

The value of $\frac{1}{1 - b}$ is equal to the ordinary investment multiplier of Keynes. Therefore it can be presumed that the government expenditure also results in changes in income via ordinary multiplier.

This concept of government expenditure multiplier helps to show its usefulness as a fiscal instrument. If the marginal propensity to consume 'b' is 0.75, the value of government expenditure multiplier would be 4. Thus if there is inflation and there is need to reduce aggregate demand by Birr 400 billion, the government must plan to reduce its public expenditure by Birr 100 billion. A reduction of Birr 100 billion of public expenditure will operate through a multiplier value of 4 to reduce incomes ultimately by Birr 400 billions. Similarly, during deflation, if there is need to increase' aggregate demand by Birr 400 billion, public expenditure should be increased by Birr 100 billion

2) Taxation Policy

The effect of taxation is different from that of public expenditure. An increase in taxation reduces disposable incomes. This reduces their Consumption and savings. An increase in taxation reduces aggregate demand while a decline in taxation increases it. During inflation therefore taxation should be raised to reduce the disposable incomes of the people. This will help to control inflationary pressures. During depression taxation should be reduced to leave more disposable incomes to encourage people to spend.

The operation of taxation as a fiscal instrument can also be made clear through the tax multiplier

concept. Taxes tend to reduce the disposable incomes of the people. Hence,

$$Y = C + \bar{I} + \bar{G}$$

$$C = a + bY_d$$

where $Y_d = (Y - T)$

$$\therefore Y = a + bY - bT + \bar{I} + \bar{G}$$

$$Y - bY = a - bT + \bar{I} + \bar{G}$$

$$Y(1 - b) = a - bT + \bar{I} + \bar{G}$$

$$Y = \frac{a - bT + \bar{I} + \bar{G}}{(1 - b)}$$

If taxes are changed by ΔT , then

$$\begin{aligned} Y + \Delta Y &= \frac{a - b(T + \Delta T) + \bar{I} + \bar{G}}{1 - b} \\ &= \frac{a - bT + \bar{I} + \bar{G}}{1 - b} + \left(\frac{-b\Delta T}{1 - b} \right) \end{aligned}$$

Subtracting equation (9) from equation (10), we get

$$\begin{aligned} \Delta Y &= \frac{-b\Delta T}{1 - b} \\ \therefore \frac{\Delta Y}{\Delta T} &= \frac{-b}{1 - b} \text{ (Tax multiplier)} \end{aligned}$$

If the marginal propensity to consume is 0.75, the value of tax multiplier would be 3. The negative sign shows that an increase in taxation will lower incomes. It is interesting to note that the value of tax multiplier is less than the value of government expenditure multiplier. This has important policy implications. If the aggregate demand of Birr 400 billion has to be increased during depression, government must plan for an expenditure of Birr 100 billion with an expenditure multiplier of 4. But instead of expenditure it decides to make use of tax policy then, it should reduce taxation by Birr 133.33 billion as the tax multiplier is 3. Thus the extent of fiscal operations through taxation has to be much larger than that under public expenditure.

This analysis can be further extended to find out what happens if the government uses both tax and expenditure changes. The question is what would be the effect on the economy if the government finances all its expenditures with the help of taxation only. The classical economists had called the effect of such a balanced budget to be neutral. But the evolution of the concepts of tax and expenditure multipliers helps to understand that the impact of balanced budget cannot be neutral because

$$\text{Tax multiplier} = \frac{-b}{1-b}$$

$$\text{Expenditure multiplier} = \frac{1}{1-b}$$

Hence when taxes equal expenditure the multiplier effect would be

$$\frac{-b}{a-b} + \frac{1}{1-b} = \frac{1-b}{1-b} = 1$$

It means that the balanced budget multiplier is equal to unity. In other words, even when all expenditure is financed through taxation in a balanced budget, it would cause an increase in income to the full extent of additional expenditure. This explodes the classical belief of neutral effects of a balanced budget. On the other hand even a balanced budget has expansionary effect. Therefore when there is inflation there should be a surplus budget while during depression a deficit budget. At the level of full employment, even a balanced budget can be expansionary to cause inflationary pressures.

3) Government Borrowing

The third fiscal tool is government borrowing. Public debt policy influences aggregate demand through the volume of liquid assets. When government floats a loan there is a transfer of liquid funds from the private sector to the government which reduces the purchasing power of the private sector. At the time of interest payments and repayment of debt, there is transfer of funds from the government to the private sector which increases the purchasing power in the hands of the private sector.

8.2 OBJECTIVES OF FISCAL POLICY

Fiscal policy is now considered an important instrument to achieve the macroeconomic goals. The classical economists had believed in automatic full employment and so they advocated laissez faire. There was no need for government interference in the economic system. Taxation was to be minimum to meet the requirements of the government expenditure on law and order and defense only. They advocated a balanced budget. Thus minimum taxation to meet only essential public expenditure and balanced budget were the principles of sound public finance in classical theory.

In sharp contrast to such a passive role for fiscal policy, modern economists like Keynes assigned an active and positive role to fiscal policy. Fiscal policy should be used to regulate

and control the economy with the help of fiscal tools like taxation, public expenditure and public borrowing. This was called the principle of Functional finance.

The concept of Functional finance has been developed by A.P. Lerner. Functional finance evaluates fiscal policy by its effects on the way it functions in an economy. According to the principles of Functional finance, fiscal policy must first remove the factors that cause inflation and deflation so that economic stability can be maintained. Secondly, the purpose of borrowing is not to raise money only but to make people hold more bonds, and less money. Hence public borrowing should be used to control purchasing power in the economy. Thirdly taxation is also to be used not only to raise revenue for the government but also to control purchasing power in the hands of the people. Fourthly, any excess of government expenditure over its revenue should be met with by public borrowing. But if borrowing is not possible, it should be covered through deficit financing or printing of new money, more so in depression.

Thus Functional finance assigns an important role to fiscal policy viz., to control cyclical fluctuations in the economy by avoiding inflation and deflation and also to achieve and maintain full employment and price stability. It means budget need not be balanced. Thus the principle of functional finance replaced the principles of sound finance.

Musgrave however feels that there can be no simple set of principles to demarcate fiscal policy. There are actually a number of unrelated issues. Musgrave hence points out that fiscal instrument should be used (1) to secure adjustments in/the allocation of resources (2) to secure adjustments in the distribution of income and wealth and (3) to secure economic stabilization.

This theoretical development has considered the conditions of developed countries while setting forth general objectives of fiscal policy. The objectives of fiscal policy in developed countries are bound to be different from developing countries. In the developed countries the major objectives are full employment, economic stability and a high and stable rate of growth. In developing countries besides these three, the major objective is to stimulate capital formation and encourage investment, to achieve economic development. Hence the major objectives of fiscal policy may be identified as follows.

1. Full employment.

Full employment is a common objective of fiscal policy in both developed and developing countries. Fiscal policy should aim at reducing the extent of unemployment and under-employment. Public expenditure on social overheads, and public sector enterprises all help to

create employment opportunities. Tax holidays and subsidies to start industries in rural areas help to generate employment.

Public expenditure for implementing public works programmes like road construction and other construction activities was recommended by Keynes to reduce unemployment during depression. He advocated government spending to compensate for the deficiency in private spending so that such expenditure would result in employment. Public expenditure used for Integrated Rural Development Programme is highly commendable for their effects on generation of employment.

2. Price stability.

Price stability is an important objective for all countries in general. Fiscal policy should aim at avoiding both recessions and inflation. Generally, mild rise in prices is considered as an incentive for capital formation and investment but high rate of inflation would remove the gains of development. There will be an imbalance between aggregate demand and aggregate supply. Increasing public expenditure is bound to increase the purchasing power in the hands of the public but structural rigidities will not permit a quick increase in production. Hence inflationary pressures are bound to occur in the course of economic development. But it may not be possible to curtail public expenditure as it is very much required in a developing country in the absence of private investment. Hence fiscal incentives in the form of tax concessions to industries, tax holidays to newly started industries subsidies to encourage production of essential goods will help to increase production, India has tried all these measures to encourage production in essential fields. Subsidies for fertilizers and other agricultural inputs to help farmers are another example to increase agricultural production to stabilize prices.

In general lowering of public expenditure is not advisable in developing countries to fight inflation. So also an increase in taxation may not be possible as taxable capacity is low. Further, these economies may be in need of tax concessions to encourage production. Hence in times of inflation, fiscal policy should be supplemented by monetary policy to control inflation.

3. To accelerate the rate of economic growth.

A high rate of growth along with price stability is the third important objective of fiscal policy especially in a developing economy. All the three fiscal instruments of taxation, public expenditure and public borrowing should be used with a view to encourage production, consumption and distribution of goods. They should be aimed at increasing national income as

well as per-capita income.

Fiscal instrument should be directed to increase the productive capacity of the economy. Tax instrument should encourage investment and discourage consumption in order to increase production. For instance it may be necessary to reduce the high rate of tax on richer sections of the people to encourage capital formation. Supply side economists advocated tax incentives to encourage production.

4. Optimum allocation of resource.

Resources are scarce in a developing economy. Hence optimum allocation of such scarce resources becomes a primary objective of fiscal policy. Public expenditure can be undertaken in desired areas where private resources will not flow. Similarly tax exemptions and concessions can help to attract resources towards needy sectors. So also high taxation will drive away resources from such fields. For example high capital gains tax on speculative -dealings in land share etc., may be necessary to curtail inflationary pressure. Kaldor recommended gift tax in order to reduce inequalities of income being encouraged through transfer of property. Fiscal policy may have to be used to achieve direct curtailment of consumption and socially unproductive investment.

5. Equitable distribution of wealth and income.

Extreme inequalities of income and wealth are harmful to economic development. Such inequalities exist in a large extent in developing countries. Redistributive public expenditure and redistributive tax policy can help to reduce such inequality in income and wealth.

Redistributive public expenditure policy requires that government should spend in a way which would benefit low income groups. Public expenditure on free education, welfare schemes all help to improve the standard of living as well as the productive capacity of the poorer people.

A redistributive tax policy should require highly progressive taxation. Richer sections can be highly taxed and tax exemptions can be given for the poorer sections. Similarly heavy indirect taxes can be levied on luxury goods since they are consumed by the rich. However high rate of taxation in order to bring equitable distribution should not reduce the incentives to save and invest. Hence tax concessions can be given to even richer sections provided they are invested in proper channels.

6. External stability.

Fiscal policy can be used to achieve external economic stability. Fluctuations in international

trade can cause instability in national income due to the operation of foreign trade multiplier. There should be a built-in flexibility in the budget so that the revenue and expenditure of the government will play a compensatory role to stabilize such external fluctuations. Tariff policy can help here. During inflation heavy import duty on import of consumer goods and luxury goods can be levied. During depression government should spend for public works programme. Fiscal policy to minimize international fluctuations requires deficit budgets in depression and surplus budgets in inflation.

7. To promote capital formation and investment.

Fiscal tools can be effectively utilized to promote savings and capital formation. Tax rebates, subsidies and tax concessions should be given for encouraging investment in the private sector. In early stages of development, government expenditure must be incurred to create social overhead capital like transport and communication, power generation etc., such measures would increase the social marginal productivity of investment and help the growth- of private investment also.

8. To remove regional imbalance.

In a developing economy, regional imbalance in development can hinder progress. Fiscal policy can be geared to develop such regions where development is lacking. Tax concessions may be given to industries started in backward areas. Public expenditure may be used to start industrial estates with all facilities to encourage entrepreneurs to start industries in such areas.

These objectives of fiscal policy make it very clear that fiscal instruments have an active role to play not only to achieve economic stability and full employment but also to promote economic development. Fiscal policy assumes a new significance in the face of the problem of capital formation in underdeveloped countries. The U.N. Report on 'Taxes and Fiscal policy' points out, "fiscal policy is assigned the central task of wresting from the pitifully low output of underdeveloped countries sufficient savings to finance economic development programmes and to set stage for more vigorous public investment activity".

8.3 COMPENSATORY FISCAL POLICY

Compensatory fiscal policy refers to the way the government plans a budget surplus or deficit to compensate spending by the public in the economy. It became prominent after the success of Keynes' prescriptions to fight the great depression of 1930s. The underlying principles of compensatory finance are:

1. If there is unemployment as during depression, the fiscal policy should be geared to increase the level of aggregate demand.
2. During times of inflation, the level of aggregate demand should be reduced to make it equal to the value of available output.
3. If there is full employment, fiscal policy should maintain the level of aggregate demand so that there is neither inflation nor unemployment.

1. Anti-deflationary fiscal policy

During depression the economy suffers from unemployment, falling income and shrinking economic activity. Economic activity is low because aggregate demand is low and people are not spending. People do not spend because of low incomes and unemployment. This vicious circle has to be broken through fiscal policy. The right type of fiscal policy is one which raises aggregate demand. This can be done in two ways. Fiscal policy should be directed to make people spend more. Secondly if private spending does not increase, government should increase its expenditure to compensate for the deficient private spending.

In the first case all fiscal instruments can be used to stimulate private expenditure. For example private consumption can increase if they have more disposable incomes. For this tax rates should be reduced or some taxes which affect consumption adversely can be abolished. Sales tax should be abolished and excise duties on goods must be reduced. Public expenditure should be incurred on schemes which would raise the incomes of the poor. Public borrowing should not be resorted to as people cannot contribute to it. Rather depression is the time to make redemption of public debt if possible so that funds flow to the people to enable them to spend or invest. Similarly private investment expenditure can be stimulated. Private investment is low during depression because marginal efficiency of capital is low. Therefore business and corporate taxes should be reduced. Firms which increase their investment to provide more employment during depression should be given tax concessions. Public debt redemption during depression will increase funds in the hands of richer sections who are the investing class of people.

Though all these fiscal measures can help to increase private expenditure on consumption and investment, it may not really bring in the desired result. When business prospects are gloomy, private investments may not come forth at all. Similarly private consumption expenditure may take a long time to react. Therefore the best and the only way to bring a turning point is for the

government to increase its expenditure. In fact this remedy suggested by Keynes succeeded so well in U.S.A. in bringing recovery during the Great Depression in 1936, that has been responsible for the development of the theory of compensatory fiscal policy.

The government can increase its expenditure in two ways. Firstly it can spend for social security benefits in the form of unemployment allowance, free meals etc. But Keynes pointed out that it may solve poverty but not unemployment. It also hurts human dignity to live on doles. What people require during depression are jobs. When they work they get incomes to spend. Therefore the second set of measures refers to increase in public expenditure on public works programmes. Keynes' 'General Theory of Employment Interest and Money' projected public works programme as ant depression device. Public works programme covers constructive activities like road and railway development, construction of buildings, irrigation projects etc. Such activities serve the twin purpose of giving jobs and incomes as well as creation of long-term assets for the economy. If nothing is possible it was even suggested that government can spend money to make people dig holes today to be filled up by another batch next day. The keyword is provision of jobs during depression' to enable people to have earning capacity. This initial increase in public expenditure would result in a multiple increase in incomes through multiplier effect.

Keynes suggested that the government should keep a plan for such public works programmes ready so that it can be implemented as soon as the signs of depression appear. Infact the timing of public works programme to be started at the right time is very crucial in anti-deflationary fiscal policy because the right action and the right quantum of expenditure can help to nip the problem in the bud. If the schemes are started after the problem is aggravated, it may require a much larger public expenditure. Such an injection of fresh purchasing power in the form of an increase in public expenditure is known as pump priming. This increase in investment may set in motion a process of recovery from the conditions of depression. It is like a little water poured into a pump to prime it; it may supply an endless flow of water. Similarly if the government spends some money, the flow of economic life would continue smoothly forever.

There is however some limitations in implementing public works programme. It is often difficult to forecast the signs of depression. Hence the public works programmes may not be started at the appropriate time, thus raising the burden of public expenditure. The government

may not have funds to spend, as tax revenue is bound to be low during depression. For this Keynes suggested that such schemes can be implemented through deficit financing. Further public works programmes are implemented by the central government in a federal set up. The whole programme may get delayed as it takes time for the central government to assess the problems of different areas. This recognition lag will cause a decision lag which may delay the success of the schemes. Most important of all, the government should slowly withdraw such expenditure as the economy recovers.

In spite of all these problems it cannot be denied that government interference through public expenditure is the best way to initiate a recovery during depression. This philosophy was responsible for the implementation of the New Deal Programme by the President Roosevelt in U.S.A. in 1936 and within three years, the economy was well on the road to recovery.

2. Anti-inflationary fiscal policy.

During inflation prices rise due to excess of purchasing power over available output. Therefore fiscal policy should be geared to reduce aggregate demand. This can be achieved through a surplus budget viz., public revenue is more than public expenditure.

The suitable anti-inflationary tax policy is one where tax rates are increased and new taxes are introduced so that there is a reduction in the disposable income of the people. Income tax helps to reduce the disposable incomes of the people and reduce their purchasing power. Income tax rates can be easily raised during inflation. Expenditure tax can be introduced. However tax incentives can be given to entrepreneurs as it would increase production. Tariff policy may be suitably changed to allow for greater inflow of imported goods to meet the domestic demand.

Just as tax policy is useful to reduce private spending, public expenditure should also be curtailed during inflation. Some schemes which are not required can be given up. Such schemes which can be undertaken at a later date without any adverse effect can be postponed. Government should reduce payments made to social security. A reduction of public expenditure in productive channels may have harmful effects in the long run. Hence the curtailment of public expenditure during inflation should occur in unproductive channels.

Public borrowing should be increased so that funds flow from the private sector to the government, thus reducing aggregate demand. Hence compensatory finance recommends surplus budget during inflation.

Fiscal Stabilizers and Flexibilities

The success of fiscal policy especially compensatory fiscal policy depends upon the existence of flexibility in the economic system.

Built-in-flexibility is very important in a fiscal system for the success of fiscal tools. Built-in-flexibility refers to the automatic adjustment in the public expenditure and taxes with reference to inflation and deflation without giving rise to any deliberate action on the part of the government. For example if progressive system of tax rates is adopted, tax revenues would automatically go up as national income increases. Modern fiscal system has several such built-in stabilizers. When national income declines income tax and corporation tax automatically bring less revenue. Public expenditure on unemployment insurance, welfare schemes, automatically increase during depression. Thus falling revenue and increasing expenditure cause a deficit budget. Fiscal instruments which contain such ability to respond to increase and decrease in national income are called Automatic Stabilizers.

As automatic built in stabilizers, direct taxes, corporate profit tax, capital gains tax etc. are better than indirect taxes like excise duty and sales tax, because they are taxes on goods and hence consumption rises less than proportionately in relation to income.

Public expenditure if it responds quickly to changes in income can act as a good stabilizer. Modern governments are quick to provide welfare benefits as and when problems arise. Thus unemployment allowances during recession, support prices for agricultural products, all involve automaticity during recession resulting in much needed transfer of purchasing power into the hands of the people. Similarly during inflation as situation improves such welfare payments taper down.

Built-in-stabilizers provide a cushion to the cyclical changes in income. Any government action involves delay and hence automatic stabilizers start functioning at the appropriate time without delay. However the effectiveness of built-in-stabilizers depends on the elasticity of public expenditure. It is bound to succeed only at a high level of taxation and expenditure; otherwise the impact would not be felt.

8.4 DISCRETIONARY FISCAL POLICY

Discretionary fiscal policy refers to deliberate changes on the budget such as changes in tax rates or public expenditure or both. It is of three types.

- (i) Varying tax rates

- (ii) Varying public expenditure
- (iii) Varying welfare payments and public works.

The success of discretionary fiscal policy to control inflation or deflation depends upon the proper timing and forecasting of the action.

Discretionary fiscal policy suffers from one major defect, that it is susceptible to all lags viz., recognition lag as well as decision lags. By the time the government recognizes the problem of inflation or deflation and decides to take action, the problem would have become worse. Further discretionary action taken may not be suitable for the situation. Thus fiscal instruments may be used for expansion while contractionary forces are required. In this respect automatic stabilizers are better than discretionary fiscal action as they begin to operate as and when the contractionary or expansionary policy is required. However automatic stabilizers alone cannot stabilize the economy. Empirical studies have proved that automatic stabilizers cannot bring in more than 50 per cent success during deflation and it is lesser during inflation. On the other hand, discretionary fiscal policy is known for its announcement effect. The very fact that the government has changed its fiscal policy helps in guiding the economy in the right direction.

Formula Flexibility

Formula flexibility combines the advantages of built-in-flexibility and discretionary fiscal policy. Here, the government spending and tax rates are linked to a certain cyclical indicator. If the indicator shows a decline, government introduces a pre-planned tax and expenditure policy. Formula flexibility can work very well to control cyclical changes in income. But it is yet to be given a practical trial.

Usefulness of Fiscal Policy

The usefulness of fiscal policy to achieve the macro objectives of full employment and stability has come into prominence ever since it was used to counter unemployment during the great depression of 1930s.

The usefulness of fiscal policy to assure full employment arises from the fact that the fiscal instruments like public expenditure help to increase the level of aggregate demand to the required level. The figure below illustrates this.

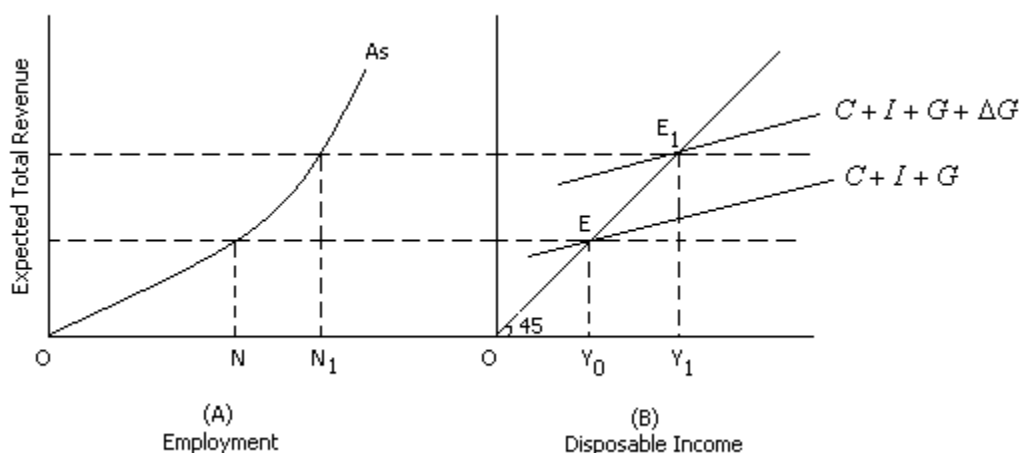


Fig. Effect of Government Expenditure on Employment

Diagram (A) shows the level of employment to be ON when the original aggregate demand is indicated by the curve $C + I + G$. If N_1 is the full employment level, there is unemployment to the extent on NN_1 . If government increases its expenditure on public works programme, it results in multiple increases in income. The shift in the aggregate demand to $C + I + G + \Delta G$ results in an income of OY_1 and the new equilibrium at E_t results in an employment of ON_1 thus public expenditure can be a very effective tool to raise the level of employment during depression.

Fiscal policy can be effective at times when even monetary policy fails to operate. During depression monetary policy may fail to be effective. Even if the rate of interest is lowered by the central bank, entrepreneurs may not come forward to invest as the marginal efficiency of capital is low. This is illustrated in the figure below.

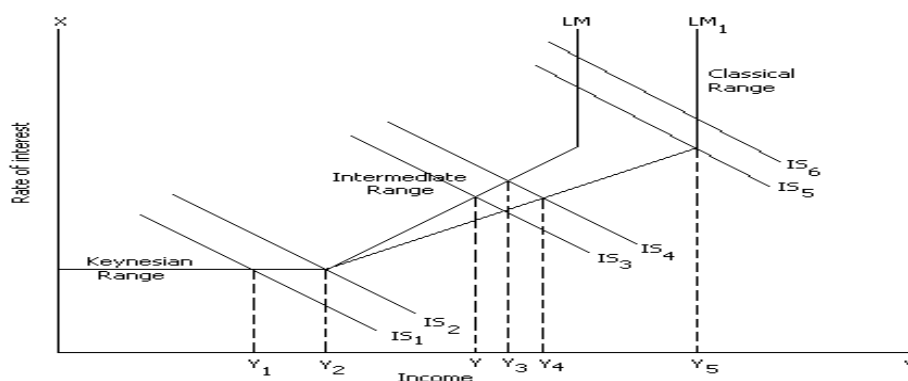


Fig. Fiscal Policy Operation

Keynesian range shows a situation during depression when the demand for money is so infinitely elastic (horizontal portion of LM curve) that monetary policy fails. In such a situation an increase in government expenditure as shown by a shift from IS_1 to IS_2 helps to increase income from Y_1 to Y_2 and thus cause an increase in aggregate demand.

The effectiveness of fiscal policy is moderate in the intermediate range of the LM curve i.e., for the same extent of shift in IS curve from IS_3 to IS_4 income increases from Y_3 to Y_4 only. In the classical range, LM_1 curve is perfectly inelastic and fiscal policy fails to operate. A shift from IS_5 to IS_6 cannot bring any increase in income beyond Y_5 .

Of course the extent of effectiveness of fiscal policy in the intermediate range depends upon the elasticity of LM curve. Thus with less elastic LM_2 curve, the shift from IS_3 to IS_4 helps to bring only a small increase from Y^* to Y_3 .

As an instrument of government's policy, fiscal policy can be effectively used as complementary to monetary policy. The monetary policy influences the level of aggregate income and spending in the economy by influencing the money supply and the cost of borrowing funds from banks i.e., the rate of interest. Fiscal policy on the other hand affects aggregate demand through its effects upon the size, composition and timing of government spending and revenues. Thus during depression, public works programme through deficit spending should be accompanied by a cheap money policy of low interest rates. Similarly during inflation, surplus budget should be accompanied by dear money policy. Thus both fiscal policy and monetary policy can be coordinated well to achieve economic stability quickly.

Limitations

Fiscal policy alone cannot achieve the macro policy objectives. There are certain limitations:

1. Fiscal policy acts through changes in aggregate demand. Therefore it cannot bring about structural changes in the economy if the situation requires it.
2. The impact of fiscal measures is selective.
3. The success of fiscal instruments depends upon accurate forecasting and timing as in the case of pump priming.
4. It is difficult to measure the extent of fiscal action required. The quantum of public expenditure to be raised or lowered, taxation to be increased or decreased, the extent of public borrowing or repayment of public debt are all to be carefully manipulated.
5. Fiscal instruments are supposed to bring about the required changes in aggregate demand

through multiplier effect. But multiplier does not operate properly in developing countries on account of several bottlenecks. If only the value of tax multiplier and expenditure multiplier could be gauged correctly, they could have real impact on the economy.

6. Fiscal policy suffers from different lags in the implementation of macro policy. First there is the recognition lag. The government should be able to identify the symptoms of an oncoming inflation or deflation so that needed steps can be taken. Failure to recognize the symptoms results in not only delay in solving the problem but also increases the extent of budgetary operations. Secondly there is the decision lag. Democratic procedures and parliamentary sanctions may delay government action. Political considerations may interfere in taking useful measures. Thirdly there is the action lag. For example, government may decide to spend more, but it can be done only if there are suitable plans drawn and kept ready. This lag can be avoided if the fiscal advisers to the government have well planned anti-inflationary and anti-deflationary schemes. Fourthly even if all these are overcome, there is the outside lag for the policy to take effect. If chain reaction of a change in tax or public expenditure or public debt policy may take some months to be felt as they operate through income-consumption relationships.

There are certain specific limitations of fiscal policy in developing countries. Large extent of tax evasion, low elasticity of taxes, low taxable capacity may hinder the operation of tax policy. Similarly existence of barter economy, large extent of under employment, lack of support from the public may not be helpful for public expenditure as a fiscal instrument. Unorganized money and capital markets, lack of confidence in investing in government bonds may affect the success of fiscal policy in developing countries.

In spite of these limitations, fiscal policy and monetary policy are the twin instruments in the armory of the economic system to achieve full employment and growth with stability. All that fiscal policy requires is proper timing and action.

Chapter Nine

9. Federal-state financial relations in Ethiopia

Learning objectives;

After discussing this chapter, you should be able to:-

- Examine the federal-state financial relations in Ethiopia
- Explain the distribution function under the Constitution of the Federal Democratic republic of Ethiopia
- Discuss Federal and State power of taxation in Ethiopia
- Understand the concurrent power of taxation in Ethiopia

Ethiopia is a Federal Government; the federal- state financial relations are based on the principles of federal finance. In a federation, there is constitutional division of powers, functions, and resources between the federal and the state governments. Thus, federal-state financial relations are defined under the constitution of the Federal Democratic Republic of Ethiopia Proclamation No. 1/1995.

9.1 provisions under the constitution of Ethiopia

Under the constitution there is a threefold distribution of legislative powers between the Federal and States, viz., Federal power of taxation, State power of taxation and Concurrent power of taxation (Articles 96, 97 & 98).

The House of the Federation and the House of Peoples' Representatives shall, in a joint session, determine by a two-thirds majority vote on the exercise of powers of taxation which have not been specifically provided for in the Constitution.

1) Distribution of functions

There are detailed lists in the Ethiopian Constitution of Federal Powers, the State Powers and Concurrent Powers where Federal legislation prevails in case of conflicts. Thus, there are functions, which are exclusively assigned to Federal Government, others exclusively to the State Governments, some of which, where the Federal and State Governments exercise Constitutional Jurisdiction. And anything could still be left out after mentioning Federal and State power of taxation, as a residuary item, it belongs to the Federal Government.

The Functions of the Federal Government include defense, defense industries, foreign affairs, citizenship, marine shipping and navigation, airways, post and telegraphs, National Bank,

currency and foreign exchange, foreign loans, foreign and interstate trade, important industries and institution of national importance, etc.(see Article 51).

The functions of the State Governments include, public order, police, administration of justice, public health, education, agriculture, forests, fisheries and other industries etc, (see Article 52).

2) Distribution of Revenue

The Federal Government and the States shall share revenue taking the federal arrangement into account.

9.2 Federal power of taxation in Ethiopia

1. The Federal Government shall levy and collect custom duties, taxes and other charges on imports and exports
2. It shall levy and collect income tax on employees of the Federal Government and international organizations
3. It shall levy and collect income, profit, sales and excise taxes on enterprise owned by the Federal Government.
4. It shall tax the income and winnings of national lotteries and other games of chance
5. It shall levy and collect taxes on the income of air, rail and sea transport services.
6. It shall levy and collect taxes on income of houses and properties owned by the Federal Government; it shall fix rents
7. It shall determine and collect fees and charges relating to licenses issued and services rendered by organs of the Federal Government
8. It shall levy and collect taxes on monopolies
9. It shall levy and collect Federal stamp duties.

9.3 State power of taxation in Ethiopia

1. States shall levy and collect income taxes on employees of the state and of private enterprises.
2. States shall determine and collect fees for land usufructuary rights
3. States shall levy and collect taxes on the incomes of private farmers and farmers incorporated in cooperative associations.
4. States shall levy and collect profit and sales taxes on individual traders carrying out a business within their territory

5. States shall levy and collect taxes on income from transport services rendered on waters within their territory.
6. They shall levy and collect taxes on income derived from private houses and other properties within the State. They shall collect rent on houses and other properties they own.
7. States shall levy and collect profit, sales, excise and personal income taxes on income of enterprises owned by the States
8. Consistent with the provisions sub-Article 3 of Article 98, States shall levy and collect taxes on income derived from mining operations, and royalties and land rentals on such operations.
9. They shall determine and collect fees and charges relating to licenses issued and services rendered by State organs.
10. They shall fix and collect royalty for use of forest resources.

9.4 Concurrent power of taxation in Ethiopia

1. The Federal Government and the States shall jointly levy and collect profit, sales, excise and personal income taxes on enterprises they jointly establish.
2. They shall jointly levy and collect taxes on the profits of companies and on dividends due to shareholders.
3. They shall jointly levy and collect taxes on incomes derived from large-scale mining and all petroleum and gas operations, and royalties on such operations.

Undesignated Powers of Taxation in Ethiopia

The House of the Federation and the House of Peoples' Representatives shall, in a joint session, determine by a two-third majority vote on the exercise of powers of taxation which have not been specifically provided for in the Constitution.

Directive on Taxation

1. In exercising their taxing powers, States and the Federal Government shall ensure that any tax is related to the source of revenue taxed and that it is determined the following proper considerations.
2. They shall ensure that the tax does not adversely affect their relationship and that the rate and amount of taxes shall be commensurate with services the taxes help deliver.
3. Neither States nor the Federal Government shall levy and collect taxes on each other's property unless it is a profit making enterprise.