M.A. Economics IVth Semester

ECON 242 (DSC)

PUBLIC FINANCE

Lessons : 1-18

CENTRE FOR DISTANCE AND ONLINE EDUCATION

HIMACHAL PRADESH UNIVERSITY,

SUMMER HILL, SHIMLA - 171 005

CONTENTS

SYLLABUS M.A.

(Economics) Course-ECON 242 (DSC)

PUBLIC FINANCE

Maximum Marks: 100

Unit-I

Principles of Public Finance: Principles of Maximum Social Advantage. Role of public finance in the developing Economics. Fiscal economics: An overview of allocation, distribution and stabilization functions. Market failure. Public goods and enternalities. Public goods and free-rider problem.

Unit - II

Principles of Taxation: Meaning and type of taxes; requirements of a good tax structure. Approaches to taxation; micro analysis of direct and indirect taxes; individual income tax, corporation income tax, sales tax including value added tax and expenditure tax. Incidence of taxes; nature of tax burden and principles of tax incidence. Theories and measures of tax incidence. Effects of taxes on work efforts, savings, investment and growth. Trade-off between equity and efficiency. Taxable capacity.

Unit - III

Economics of Public Debt and Public Expenditure: Sources of public debt. Classical theory of public debt. Compensatory aspects of debt policy. Burden of public debt. Management of public debt. Growth of internal and external public debt in India. Theories of growth of public expenditure. Pattern of public expenditure. Pure theory of public expenditure. Growth of public expenditure in India.

Unit - IV

Reforms in Budgeting System and Stabilization Policies: Performance and programming budgeting. Classification of public budget, zero based budgeting; balanced and deficit budgets. Fiscal policy: traditional and modem views on fiscal policy. Instruments of fiscal policy; built-in-stabilizes and compensatory fiscal policy. Fiscal policy for stability and growth. Fiscal policy and economic development.

Unit - V

Fiscal Federalism: Role of fiscal federalism. Allocation, distribution, and stabilization in a federation. Union state local financial relations in India. Growth and composition of statutory and non-statutory financial transfers in India. Nature and extent of deficits in central and State budgets. Policy measures to correct fiscal imbalances.

INSTRUCTIONS FOR CANDIDATES FOR THIS COURSE SHALL BE AS FOLLOWS:

(i) Questions paper will consist of eleven questions in all. The first question (at serial No.1) will consists of 10 short-answer type questions which will cover the entire syllabus uniformly and will be based on concepts and definitions only. This question will carry 20 marks in all and each short-answer type question with answer about five lines (fifty words) will carry 2 marks each. The rest of ten questions (from serial no. 2 to 11) will be such that there will be two essay type questions each from the five units of the syllabus, which will carry 16 marks each.

(ii) Candidates are required to attempt six questions in all. The question number on (with 10 parts) compulsory are rest five questions in such a way choosing one question each from the five units.

SUGGESTED READINGS

Unit-I

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LESSON-1

PUBLIC GOODS AND EXTERNALITIES

Dear Student,

One major conclusion of modern economics is that the competitive price system tends, under certain conditions, to produce an efficient allocation of resources. This holds, good so long as we assume that the non existence of public goods have certain peculiar characteristics that render it unlikely that the competitive private markets will provide the optimal or efficient quantity. When this happens the market failure is said to occur. In other words the economic rationale for government intervention in the economy is based on the inability of the price system to function efficiently in such situations. To understand as to how government intervention may improve on the operations of price system. It is necessary to first know the meaning and nature of public goods and externalities and how they affect allocation of resources.

The Nature of Public Goods

The, term public goods does not necessarily refer to a good that is made available by the government. Instead, it is generally defined in terms of the degree to which it exhibits the following two important characteristics: (1) nonrival consumption and (2) nonexclusion.

Nonrival Consumption: It refers to the idea that there are some goods, the benefits of which can be enjoyed by more than one person at the same time. For example. Krishan and Surinder can simultaneously enjoy the benefits of lighting on road. Krishan's consumption of light does not reduce the quantity of light available to Surinder. In this case their consumption of light is said to be nonrival. Other examples of goods offering nonrival consumption will further clarify this concept. The protection offered by a nuclear submarine will be of benefit to all the citizens. The protection of your properly and person does not, reduce the protection received by others; even if you did not exist, the level of protectionavailable to others would be unaffected.

National defence is generally regarded to be one of the most clear-cut examples of a good that is nonrival in consumption. Note, however, that this characteristic does not mean that people are necessarily benefited to the same degree, A given defence effort affords greater degree of protection to some geographic areas than to others. Possibly a person living near an air base might feel greater danger than the one living elsewhere, Nonetheless defense is still a 'good' that is nonrival in consumption because it simultaneously affects a large number of people. A flood control project is another example of a public good which is nonrival in consumption for those living in the region where the incidence of floods is reduced because of project execution. Weather forecasting. pollution control measures and anti-cholera vaccination are some other examples.

By contrast most goods and services that we deal with in economics are rival in consumption. These goods do not possess much of the joint consumption characteristic. For example two people can not simultaneously consume the same banana. The benefit and satisfaction accuring to Ved in his act of eating the, banana are not available to Arun. When the consumption of a good by one person leaves nothing to be consumed by another person; consumption between the two people is called rival. For a given production of rival goods, the more you consume, the less will be available for others. *The price system resolves the problem of rival goods by allocating a larger quantity to those who are willing to pay higher price for goods.*

Nonexclusion: The second characteristic of a public good is nonexclusion of an individual from the consumption of a public good. *This means that it is impossible or prohibitively costly. To confine the benefit of the good to selected persons. In other words non-- excludability is said to exist when a person islikely to enjoy the benefits of a good whether or not payment is made for its use.*

Although nonrival and nonexclusion are the two essential ingredients of a public good and they occur simultaneously, a distinction must be made between these two concepts. In our definition of nonrivalry consumption by we said, that one person does not significantly reduce the consumption of other. Yet it could still be possible for one person to consume the good while the others may not do so. There are cases where we have potential nonrival consumption but where it is possible to prohibit consumption by some people at moderate cost. Such goods do not qualify to be regarded as public goods. The example of television. The example of television broadcasting can make the distinction between nonrival and nonexclusion clear. When a programme is telecast, any number of people can view it without interfering with the reception of others. Thus the broadcast has the nonrival characteristic of a public good. Not, however, that it is possible to exclude some people from viewing the programme. The Person not possessing television sets will be unable to watch the programmes; or metering device could be installed on TV sets so that a person metering device could be installed on TV sets so that a person could view the programme only on the payment of a price, nonpayers would thus be excluded. *Thus despite nonrivalry in consumption, exclusion is possible in case of a broadcast at a moderate cost. Such a good does not possess both necessary characteristics of a public good. In such situation where nonrivalry and non-excludability go together, then we have apublic good.*

The provision of public goods creates problems for a price system. Once such a good is made available, several persons will automatically benefit, regardless of whether they pay for it or not. Hence it is difficult for the private producers to provide a public good. Unless the private producer can collect money for producing the good. They will fail, to coverthe cost incurred on production. *To the contrary, in case of private goods where the conditions of rivalry and exclusion can be applied-private producer find incentive to provide for the goods because, they can charge payment for the supply of goods. With private goods the price system can work effectively, but with public goods the voluntary co-operation encounters a serious problem: the free rider problem.*

Public Goods and the free Rider problem: A crucial issue is whether voluntaryco-operation through price system will provide the appropriate quantity of a public good. To understand why often this cannot happen, consider a commodity of 10 persons planning, to finance the construction of a small dam to avoid flooding, the dam is a public good. Let us assume that the construction of this dam gives protection to each person equal to Rs. 1,000 and that the total cost of the dam is Rs. 5,000. If the dam is built, the total benefit to ten persons will be Rs. 10,000. It is in the interest of entire community to built the dam because benefit is greater than the cost. Each person has to contribute Rs. 500 to build the dam.

Will voluntary agreement among 10 persons be reached for building the dam It is not possible to give a clear answer, the problem may arise. Suppose one of the ten persons believe that the remaining nine will fully finance the construction of dam and he needs not to contribute; my money. If the dam is financed only by nine persons, the tenth will stand excluded from cost sharing and the benefit derived by him will be far greater than that of the others. *In this case the tenth person will be termed as a free rider, attempting to avoid the sharing of cost of a public good. Remember that if a great majority of people in a community behaved as free riders the public good (dam in the present case) would not be produced at all. The larger the group, the more severe is the potential free rider problem, and hence it would be more likely that the production of a public good might not be financed through voluntary contributions.*

The failure of the price system-based as it is on voluntary co-operation-goods is a primary rationale for government intervention. In our example of construction of a small dam, the government could impose a tax of Rs. 5 per individual to finance the cost of dam construction and every contributor shall have far greater benefit than the cost incurred by him. The government expenditure of Rs. 5,000 on the dam would lead to a more efficient allocation of resources than would the price system. Exactly how large a group must be for the free rider problem becomes serious is unclear because it depends on the bargaining and negotiating cost, the negotiating strategies, etc. Yet there is little doubt that generally a group of 1,000 persons would pose greater problem in reaching a voluntary agreement for financing the cost of a public good. Therefore, it is in a large group setting, such as national defense, that the strongest case for government intervention canbe made.

A word of caution needs to be said here. It should not be thought that the free rider phenomenon is necessarily bad. In some cases. it serves a useful function. For example, the free rider problem may in hibit the formation of collusive agreement among business companies to restrict output and raise prices.

The Efficient Output of a Public Good

The determination of the efficient output of a public good involves a comparison between marginal benefits and marginal costs associated with different levels of output. The marginal cost of a public good simply reflects the cost of resources used to produce the good, just as ill the case of a private good. However, the marginal benefit of a public good differs from that of II private good because of a nonrival nature of the public good. With a private good like a bread, the marginal benefit of producing an additional unit is simple the value of the bread to the single person who consumes it. With a public good like defence, the marginal benefit of an additional unit flows not to one individual but to all; and the benefit of all people when summed up showsthe combined willingness of the people to pay for more defense. We can illustrate the efficient output level of a public good by taking a simple case of a dam with the help of following diagram.

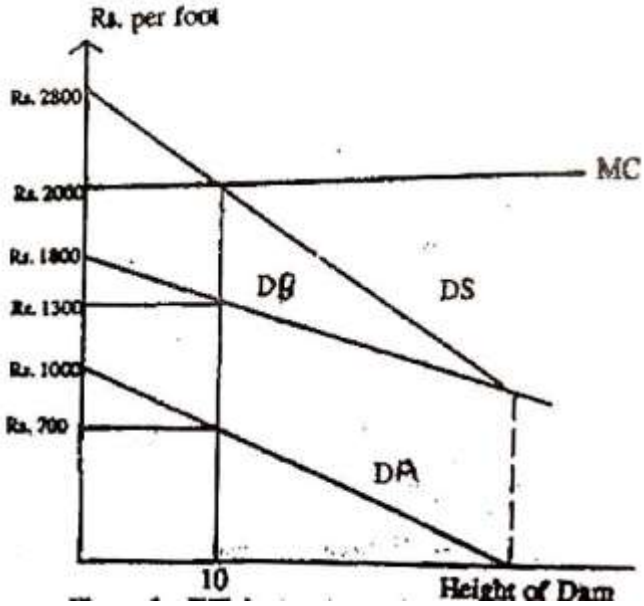


Figure 1: Efficient output of public good

The horizontal axis represents the units of public good (dam in our case) in terms of height of dam. For simplicity assume that only two persons A and B, benefit from the dam, although this analysis

canbe generalised for a number of persons. The demand curves of the two consumers are DA and DB. The demand price on a consumer's demand curve measures the marginal benefit for that consumer. The marginal benefit of society will be derived by adding the demandprices of all consumers. Thus the summation of DA and DB gives us DS. The social marginal benefit of consumers A is Rs. 1000 and of consumer B it is Rs. 1800 and combined social marginal benefit comes to Rs. 2800.

It is now easy to see that at any point where- Ds lies above the marginal cost curve drawn here as horizontal at Rs. 2000 for simplicity, both A and B are willing to pay more for additional units of output than their marginal cost, thus efficiency requires the expansion of output at any level of output upto 10 feet height of dam. At any output of more than 10 feet, on the otherhand, too much of public good is being produced because the cost of additional output is more than combined benefit to A and B; beyond this point MC lies above Ds. A reduction in output can benefit both parties. Therefore the most efficient rate of output is 10 where A's marginal benefit of Rs. 700 plus B's marginal benefit of Rs. 1300 equals the MC, that is Rs. 2000.

Externalities

Let us be aware right at the outset that externalities are frequently referred to as external effects, indirect effects. Secondary benefits and costs, spillovers, repercussion effects and even linkages. In the production, distribution" or consumption of certain goods sometimes there may exist some harmful or beneficial side effects that are borne by the people who are not directly involved in the market exchanges. These side effects of ordinary activities are called externalities. The term exteternally stems from the fact that these effects are, outside, or external to, the price system. Their impact is not determined through mutual agreement among all those affected.

An externality will, therefore, be said to exist whenever:

(a) economic activity in die form of production, distribution, or consumption affects the production or utility levels of other producers or Consumers, and

(b) the effect is unpriced or uncompensated Condition (a) mentioned above is the interdependence condition, and (b) is the non-price condition. *Both conditions must obtain for an externality exists but the effect is priced, then the externality is said to be internalised.*

Externalities may take the form of external benefits (economies) or external costs (diseconomies). In the former case, condition (b) can be restated as saying that there is non-appropriation of benefits. In the latter case, the costs are uncompensated. A few examples can nlake the nature of externalities or external effects clear. Immunisation against a contagious disease is an example of consumption activity involving external benefits. When a person isinoculated, he benefits directly because his chances of contracting the disease are reduced. The decision to be inoculated also benefits others indirectly, as they are less likely to catch disease and this is the external benefit. The indirect benefit to other persons will not influence our person's decision as to whether he is willing to pay to be immunised. What the person is concerned with is the effect on his own health. Thus the benefit that his inoculation generates for other is external to his decision. *Likewise a literacy drive involves external benefits such as improvement in law and order situation, reduction in crime rate, improvement in the functioning of political process, etc. External costs are quite common, and some most common examples can be found in the area of pollution. Operating a cement factory with a smoking chimney pollutes the atmosphere that other people breathe; operating a motorcycle produces irritatin- noise; waste of a chemical factory pollutes water. These are the few examples of external costs that the producer or consumer does not bear directly.*

At a formal level, externalities and public goods are very similar.. Inoculation of a person generates nonrival benefits in as much as both he and other benefit from his inoculation. In addition, it would be difficult to exclude other people from enjoying the benefit of inoculation of one individual. The same is true of pollution; but here there are nonrival costs. [A large number of people are simultaneously harmed if the atmosphere is polluted; it would be difficult to pollute the atmosphere for some and not for others].

If there is any difference between externalities and public goods, it may be the fact that external effects are unintended side effects of activities undertaken for some other purposes. For example, the cement factory owner does not pollute the air because he enjoys it but because it is an inevitable effect of the production process. Besides, the distribution of the benefit from consuming a good with external benefits (other than a public good) is usually very skewed. Thecommunity may receive some benefit from one person's becoming better educated, but clearly the benefit, that the educated person receives is far more greater. Unlike this, public goods tend to benefit people more evenly. These distinctions are matters of degrees; and there remains a basic similarity, between the concept Externalities lead to an inefficient allocation of resources, or market failure, just as public goods do. Market demand and supply curves will reflect only the benefit and costs of the participants in the market; the benefit and costs accruing to other will not be taken into account while determining production. For, example, a person may refuse immunisation because in this view theimprovement in this health is not worth the cost involved. If, however, the benefits of improved health for others are added to his benefit, the combined benefit could exceed the cost. In this- case, his decision not to immunised would represent an inefficient use of resources.

Nature of Externalities

If the economy is divided into two sectors producers and consumers there are four types of interdependence for benefits and costs respectively or positive or negative externalities and a web of initiating agents and affected parties, as illustrated in the figure 2 below.

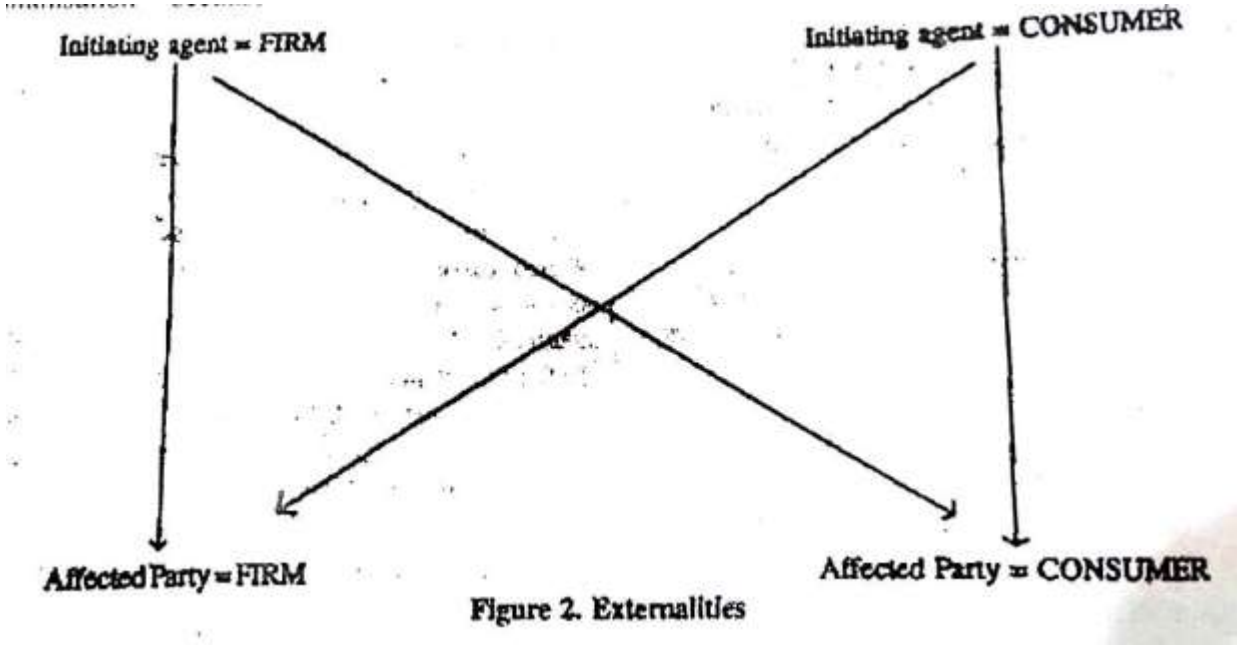


Figure 2. Externalities

The arrows in the figure indicate the direction of the effects, the initiating agents produce on firms or consumers. There are: (1) Producer-producer externalities: In this case the output of one particular firm depends directly or indirectly on the output of another firm or firms and the effect is

unpriced. The externality may be, input-generated or 'output generated'. Input-generated effects occur because of the use of particular inputs by a firm while output- generated effect arise directly from the output of a firm, independently of the nature of productionprocess. Usually, this distinction relates to situations in which a certain raw material is used, compared to situations where the final product itself has some waste component.

(ii) Producer-consumer externalities: Whereas the interdependence conditions for producer-producer externalities requires the production or cost function of one producer to be partially dependent upon the output of another producer, producer-consumer interaction requires the consumer's utility function to be partly dependent upon the output of the donorproducer. For an externality to exist, of course, it must be the case that no trade, exchange, or compensation occurs between the two. This type of externality is perhaps the most noticeable, and would include aircraft and motorways noise, air and water pollution, etc.

(iii) Consumer-producer externalities: It is less easy to find examples of this type of interdependence, and they are correctly regarded as 'being unimportant.

(iv) Consumer-consumer externalities: This type of externality has been extensively treated in literature on economics. A distinction is usually made between 'envy' and 'nonenvy externalities. In the former case, the welfare loss arises because the consumer is envious of another consumer's income or his possession of a certain good or set of goods. In the latter dependence is similar to that is the producer producer case. There is some disagreement as to whether 'envy' is a proper externality is that, although it clearly exists, some writers feel that, on ethical grounds, it should not be allowed to influence the rules for the allocation ofresources.

Pecuniary Externalities and Technological

The externality relationships described above can be either 'technological' or 'pecuniary'. The distinction between the two is conceptually clear: in, practice, however, it may not be so obvious. Essentially a technological externality occurs when the production function of the affected producer or the utility function of the affected consumer is altered. In the producer case, less (more) output is obtained for a given level of input because of the external diseconomy (economy). In the consumer case, less (more) utility is obtained from a given level of real income because of the diseconomy (economy). In short, technological externalities exist when the technological possibilities of transforming inputs intooutputs are changed because of the actions of the externality-creating agent, and it should be remembered, when this change in transformation possibilities goesunpriced. Technological externalities reflect net costs or benefits not taken into account by the market system. Because of this they are a source of inefficiency.

A pecuniary externality relates to a change in the output utility of a third party due to changes in the level of demand. Invariably these effects will accrue to supply or processing industries. An increased output of sugar beet, for example will be reflected in a higher demand and hence higher profits for supplies of agricultural machinery, seed suppliers and beet processors. Thus pecuniary effects show up change in prices and profits but do not alter the technological possibilities of production. Also, the pecuniary externalities are intrinsic to the working of a market system. Every time a price, wage rate, or interest rate changes, as thousands do every day. some people are harmed others are benefitted. There is no inefficiency produced by these effects; the markets are simply adjusting efficiently to changes underlying demand or supply conditions.

External Benefits

To examine the implications of externalities more fully, assume that consumption of some product generates external benefits. Thecompetitive supply and demand curves are shown in figure 3

as S (drawn horizontally, implying a constant cost competitive industry) and Dp: Dp reflects only the private demand of the individual for the product. Given these relationships, the market equilibrium occurs with an output of Q_E and the price of Rs. 5. External benefits can be represented by the curve Do, which reflects the marginal benefits to the people other than the direct consumer. Do is simply the vertically summed demands of people other than the immediate consumer of the product, vertically summed because of the nonrival nature of the benefits.

The competitive output Q_1, is inefficient. At Q_1, the benefit to consumers of another unit is Rs. 5. If another unit is consumed, however, people other than the direct consumer of the product receive benefit valued at Rs: 2. Thus thecombined benefit of another unit of output is Rs.7, and this exceeds Rs. 5 the cost of producing the good. The combined or social, marginal benefits are shown by Ds, which is derived by vertically adding (again because the benefits are nonrival) Do and Dp. The competitive output is too low because themarginal benefits of the greater output exceed the marginal costs. Yet there is no tendency for the competitive pressures to produce a larger output because the additional benefits to the direct consumers are less than the Rs. 5 per unit price which they must pay.

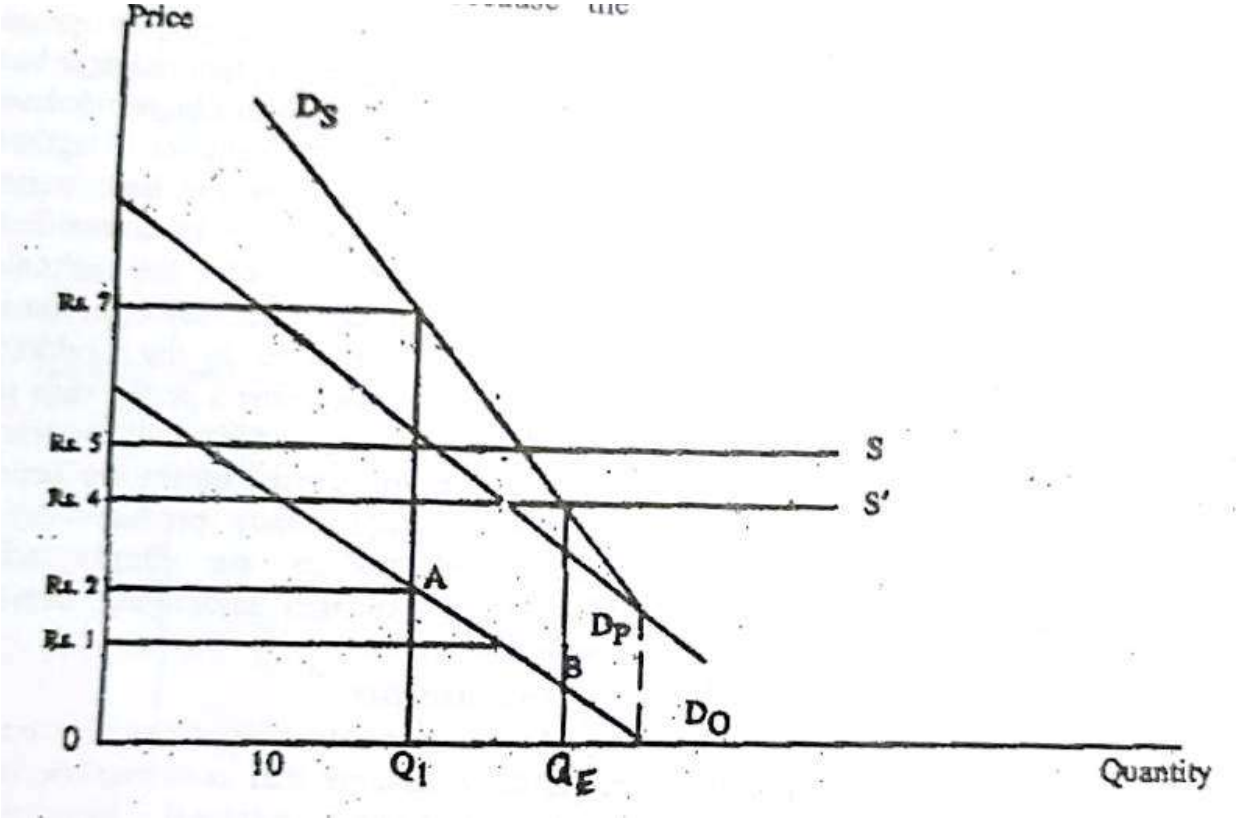


Figure 3 : External benefits in a Competitive Industry

Figure 3 explains the general tendency of an activity to be under produced when external benefits are involved and when production is determined in competitive markets. The competitive output is Q_1 where the efficient output is Q_E where Ds intersects S. Government could step in with a policy designed to increase the output to the efficient level. The policy generally recommended is an excise subsidy. If the Government pays Re 1 for every unit of output to the firms, the supply curve comes down from S to S'; the Government subsidizes every unit for Re 1 and the remaining Rs. 4 per unit will be paid by consumers. At a lower price of Rs. 4 per units, consumers would be led to purchase QE units, and this is the efficient output. Hence an appropriate use of subsidiescan enable the

Government to expand output is situations where external benefits read competitive markets to produce too little.

Note that the price to the consumers has been lowered by Re. 1, exactly the amount of marginal external benefit at the efficient level of output, Q_E (At Q_E the marginal external benefit is given by the height. of Door Re.1.). The subsidy is not equal to the marginal external benefit of Rs.2 at the competitive equilibrium. A Rs.2 per unit of subsidy would confront consumers with a price of Rs.3 per unit, and resulting level of consumption would be in excess of the efficient output. In short, the government intervention can ensure efficient output levels in such situations where external benefits are involved.

External Costs

The analysis of external costs is symmetrical to that of external benefits. Suppose that firms in a constant cost competitive industry produce wastes as a by product of their production and dump the effluents into a near by river. These wastes harm the people living downstream. so the production of the industry's produces involves external costs. In this case the competitive output will be too large, because of the production decisions of the firms.

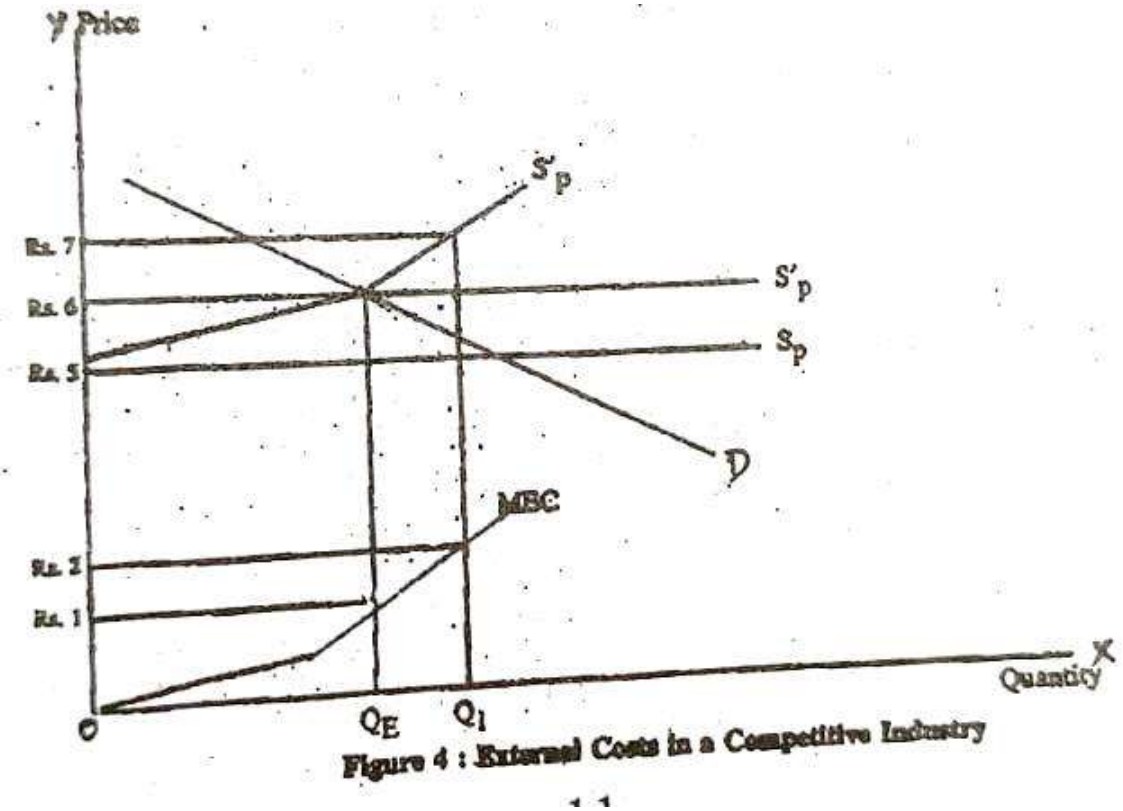


Figure 4 : External Costs in a Competitive Industry

Look at "Figure 4. The competitive demand and supply curves are shown as D and Sp, and the equilibrium output is Q_1, with a price of Rs. 5 per unit. The marginal damage suffered by people downstream due to effluents is shown by the marginal external cost, or MEC; curve. It is drawn sloping upwards to reflect the assumption that additional amounts of, effluents enflict increasing costs on the people living downstream as water becames more polluted. At Q_1 the marginal external cost is Rs. 2, implying that people downstream would be Rs. 2 better off if one unit less of the product (and the waste) were produced.

With external costs the competitive output is too large. Firms expand output as long as consumers will pay a price that covers their costs, but the resulting price will not cover the entire costs of production, it ignores the damage done by effluents to people living downstream. At Q, firms incur costs of Rs. 5 per unit, which is just covered by the price paid by consumers, but there is still a cost of Rs. 2 borne by the people downstream. At the competitive level ofoutput, Q_1 the product is not worth what it cost to produce: The social marginal cost of production is Rs.7, where as the marginal benefit to the consumer is Rs. 5. The social marginal costs of production are shown by the curve S's, obtained by vertically adding MEC to the private supply curve Sp. An efficient output occurs where S's, which includes all production costs, intersect D, i.e. at output Q_E. Competitive producers, however, lead to an output of Q_1 larger than the efficient output.

As a corrective measure, an excise tax could be used to induce the firms to produce at an efficient level, Q_E. A tax of Re. 1 per unit of output would shift the supply curve up by Re 1 to S'p, and firms would reduce production until the consumers were willing to pay a price of Rs. 6 per unit. The result at QE, is where the marginal, benefit to consumers equals the social marginal cost of production. No that the dumping of effluence is not eliminated; it is simply reduced to the point where a further reduction in production and pollution would cost more than it is worth.

To sum up the discussion of external benefits and costs it may be stated that the activities involving the external benefits will be under produced and those involving external costs will be over produced by a competitive system. The government can design appropriate policies to achieve efficient outcomes; but to implement these policies, it is necessary to know the size of externalities. Unfortunately, this determination involves the same difficulties as the demand for public goods.

Application of Externality and Public Good analysis

The preceding discussion of public goods and externalities provides important insight into the possible areas of government action to produce greater efficiency. This brief introduction has however; ignored some common objections, misunderstandings and problems in applying the analysis and the same are being clarified in the following pages.

Voluntary Bargaining in small Group: Ronald Coase has shown that voluntary bargaining can lead to efficient solutions even when externalities exist (see Ronald H. Coase, "the problem of Social Cost." Journal of Law and Economies, 3:1 (1960). He developed his analysis by considering a raucher and a farmer with adjoining properties. The rauchers cattle would occasionally stray into the farmer's property and destroy some of his crops an external cost associated with cattle rearing. Earlier we had stated that where external costs are greater damage win be greater (refer to external cost section). implying that there would be greater crop damage. But Coase argued that this might not be correct. If the raucher is legally liable for damages caused by the cattle, he will bear the cost as a result of straying cattle. But in this situation the damage will not be an external cost but a direct cost borne by the raucher. Coase went further and argued that, even if the raucher were not liable, an efficient solution could be arrived at without government intervention. This would happen because the farmer has an incentive to pay the number to reduce the number of cattle that stray into his, farm because a reduction in crop damage will increase farmer's profits. This ingenious analysis shows that voluntary bargaining can lead to efficient outcomes and at the same time illustrates the intimate connection between externalities and property rights. As long as Property rights are clearly defind bargaining resolves the problem.

Is there then ever a new to rely on government in these situations? This has already been answered in the discussion of free riderproblem. Private bargaining can work efficiently when there are small numbers involved. When a cement factory pollutes the atmosphere, private bargaining cannot be expected to reach an efficient solution. Our earlier conclusion of market failure is correct, therefore, the

larger group case and issues of great importance, such as defence, police protection, etc. large group externalities or public goods, and the price system cannot function effectively in these areas. Coase's analysis should caution us, however, against concluding that every phenomenon that appears to be an externality requires governmentintervention.

Choice of Policy to Deal With Market Failure: The existence of externalities and needfor public goods imply that in a large group setting market mechanism will not result in an efficient allocation of resources. This distortion calls for government intervention; however, it does not tell us what type of government policy should be preferred to produce greater efficiency. There are many different policies that the government could use to restrict the output where external costs are involved, and to expand the output where external benefits arise; and it is unlikely that our policy will dominate others in terms of efficiency.

Let us go back to our discussion of externalbenefits, where we had suggested that the government could give a subsidy of Re. 1 per unit of output to the firms to stimulate output to the efficient level. But this is not the only policy. Other policies, however, could lead to this efficient output. For instance, the government might simply make it obligatory for people to consume larger quantities of certain goods, such as there are now requirements concerning school attendance and vaccination in several countries. Making consumption compulsory and thus ensuring an efficient level of output is therefore, an alternative policy; but the distribution of benefits and costs differs from that of the excise subsidy. With excise subsidy, taxpayers bear the cost of expanding consumption though taxes to finance the subsidy; consumers of product donot With compulsory consumption, the consumers of the product alone pay the additional cost. In each case, an efficient allocation results, but with a different distributional impact.

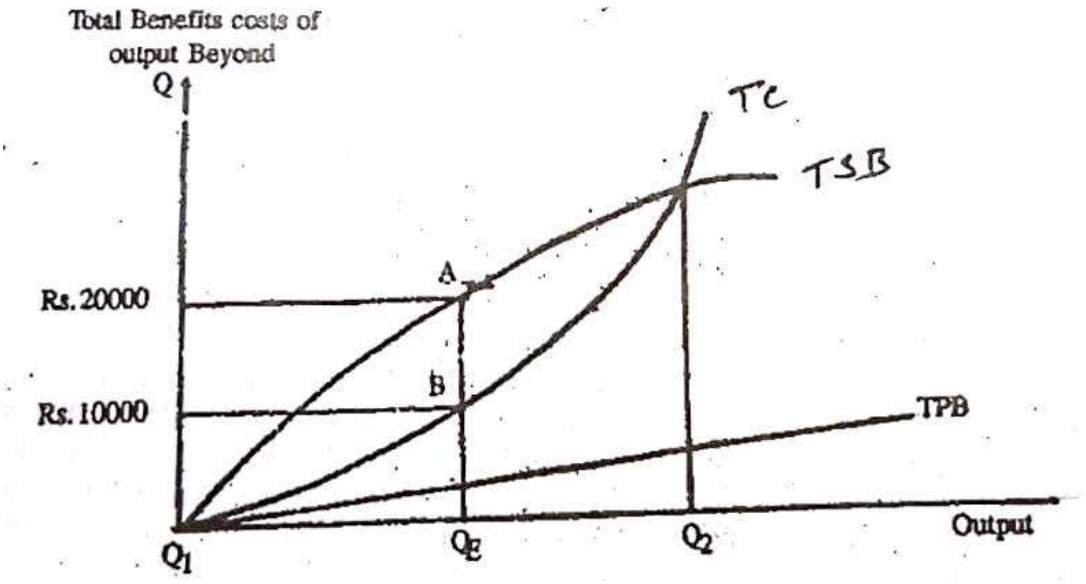


Figure 5 : Output expansion in the presence of external benefits

Choosing among alternative policy prescriptions to deal with externalities is a problem not folly answered by externality theory, but theory does help by suggesting the nature of corrective action required. The use of taxes and subsidies is quite popular to ensure efficiency in as much as the tax-subsidy policies have the advantages of flexibility and administration. Yet no unequi vocal preference for taxes and subsidies should be inferred. Each alternative policy must be examined on its own merits. Externality theory can assist by pointing in the proper direction, but it is not detailed blue print for action.

One additional problem in evolving a corrective policy lies in determining how far to pursue the corrective policy, that is, how large a tax or subsidy should be used. The rate of tax subsidy would be a simple matter to determine, if we knew the exact size of benefits and. costs involved. But the magnitude of external effects cannot be easily determined. The danger here is that we will go too far: in case of external benefits, expanding the output too far can be worse than doing nothing at all; it is true with reducing external costs too far below the efficient level. Figure 5 can illustrate this as well as several other points. It is based on the external benefit example of Figure 3. In Figure 5. however, the horizontal axis measures output in excess of competitive output, Q, On the vertical axis we measure the total benefits and costs associated with expansion in output beyond Q. The total private costs are shown by TC and TSB shows total private benefit of additional output; TC and TSB are derived from private demand and supply curves in Figure 3. The total social benefit curve, TSB, is the sum of the benefits to the consumers (TPB) plus the external benefits associated with higher level of output.

If there were no external benefits, the TC and TPB curves would have reflected all the benefits and costs of output levels beyond the competitive level. In that event the expansion of output would be inefficient because the costs exceed benefits. When external benefits areinvolved, the relevant total benefit curve, TSB,lies above the TC curve over a region of output.This means that competitive output is too low,because an exapansion of output would conferthe benefits greater than costs. The most efficientoutput occurs when there is the largest excess oftotal benefit over total costs, that is, where there is the largest net gain. This occurs at Q_E where the slopes of TSB arid TC (marginal social benefit and marginal cost) are equal, because there is then the greatest distance between the curves. At Q_E, the total benefit of the additional output, A Q_E, exceeds total cost, BQ_E by Rs, 10,000- the net gain. An appropriate excise subsidy could be used to induce this expansion of output to Q_E. But if the subsidy increases output beyond Q_2 we would be better off with no subsidy at all. Beyond Q_2, the total cost of additional output exceeds its total benefits, even including the external benefits. This explains the danger of having too much of a good thing even.

Yet without knowing the exact magnitude of external benefits, it becomes difficult to say when we have gone too far away from most efficient output. We do know precisely the total marginal private costs but estimation of the precise magnitude of external benefits is difficult, as it is based on a precise knowledge of the value individuals place on the external effects. Given this problem it is unlikely that the government will use subsidy of a proper size. Nevertheless, we should not necessarily conclude from this that the government should do nothing. For example in Figure 5 a subsidy that achieves an output between Q_1 and Q_2 is better than no subsidy at all; although Q_E is the most efficient output. As long as a programme represents an improvement over the status quo, it should be considered, and perhaps eventually a more efficient policy will be found.

Identifying the Externality or Public Good

A first step in correctly applying externality (or public good) theory is to identify exactly what. constitutes the external effect. With air pollution caused by the cement factory, it is not the factory that is an externality, it is the pollution itself. Therefore the externality theory should imply that an efficient policy must be designed to reduce pollution directly; not indirectly, for example, by reducing the number of cement factories or discourage the opening of new factories. Even a tax un cement factoriesmay fail to check pollution till it is specifically levied on the pollution. Such a tax should be higher in the event of cement factory being located near densely populated areas. This would give producers and consumers, the proper incentive to reduce pollution in any way that costs less than the taxes levied. The importance of determining exactly what constitutes the externality is frequently overlooked in policy analysis. Consider the frequent argument that education produces external benefits possibly in the form of a more stable society. Exactly what type of education produces these effects? Is dance, music, home

science and physical education beneficial to anyone other than those who receive it? Yet if only certain types of education generate external benefits, then only these types should be subsidized.

Or consider the claim that education generates external benefits because it enables students to earn higher incomes and hence makes it less likely that they will become criminals. Here it is criminal activity that is harmful effect. A subsidy for spread of education would be inefficient because it would encourage overconsumption of education by pupils too who would never become criminals. An efficient policy would be one that, penalized, and thus checked, criminal activity.

Finally consider the various proposals to stop economic growth because it involves certain external costs like pollution and congestion. But the growth in pollution and congestion, or even their absolute levels, may be reduced without directly reducing the growth in other goods and services, A corrective policy would be more effective if designed to deal with pollution and congestion directly and not with economic growth.

Individual Demand For Public Goods: How much would an individual be willing to pay for checking pollution in the atmosphere? How much is he willing to pay for strengthening the air defense system of the country? If the concerned individual faces difficulty in giving precise answers to these question, then he doesnot have a well-defined demand for the public goods or externalities in question. Out previous discussion of public goods and externalities was, however, based on the assumption that people do have well-defined demand for such goods. If people cannot place a precise value on public goods, then the notion of efficiency becomes inexact. Also, it becomes difficult to design an appropriate policy framework or acorrective action if people cannot even know the value they are ready to pay for a particular public good. Because of this limitation, it becomes difficult to evaluate resource allocation with regard to efficiency. We may, therefore, say that although economic analysis can be used to determine some of the consequences of public policies, efficiency judgements must be made subject to a range of indeterminacy.

Suggested Readings

James M. Buchanan, The Demand and Supply of Public Goods, Chicago: Rand Mcnally& Co., 1968, Chs. 5 and 9

Ajit K. Dasgupta and D. W. Pearce, Cost-Benefit Analysis: Theory and practice, London: ELBS and Macmillan, 1978, Ch.5.

J. Richard Aronson, Public Finance, New York: Mcgraw Hill Book Company, 1985, Ch. 2.

Philip Hardwick et.al., An Introduction to Modern Economics, Harlow Essex: Longman, 1986, Ch. 12.

LESSON-2

PUBLIC SECTOR AND PRIVATE SECTOR : Co-operation or Competition

Dear Student,

The modern economies are mixed economies with a large proportion of their gross national product originating from public sector. Accordingly, a large percentage of the gross national product is collected in the form of taxes to finance government activity. Empirical evidence suggests that over the past hundred years the share of government in the gross national product has steadily been increasing. This is because the modern government have increased the provision of public goods-both qualitatively and quantitatively. The extent to which the government provide goods and services via budget and the kind of services actually provided vary from country to country and across time. This prompts us to ask two different questions. The first is that why do governments provide specific goods and services that they do? The second is, which activities should the government allocate via budget? The answer to first question lie in market failure to which we have already addressed in the preceding pages. The problem that we set ourselves in this lesson is related to the choice of specific policies that serve best to implement the objectives of budgetary policy. On expenditure side of the budget it must be decided as to whether the good and services needed to satisfy public wants should be produced under the public sector and framework, or to be produced by the private sector and subsequently to be distributed by the government. In both the situations taxes are required to be imposed to finance the provision of these goods whether the government purchases, factors of production or it purchases finished goods and services from the private sector. More generally the government must plan its tax and expenditure policies so as to obtain the desired end result after allowing for resulting interactions between public and privatesector.

Public Production

Once the allocation branch has decided asto which public wants should be satisfied, the next task is to determine whether the required goods and services should be purchased from private firms or these should be produced in the public sector (Note-for a detailed discussion of allocation, distribution and stabilisation branches see Richard A. Musgrave, The Theory of Public Finance a study in public economy, Ch.l) Both techniques can be used. In both situations the goods or services can be provided free of direct charge to the consumers but their cost has to be financed through taxes, the nature of which will be determined by the government. The inapplicability of the exclusion principle refers to the demand but not to the supply of goods and services needed to satisfy public wants. Battle tanks may be produced in public or private factories, free health facilities can be provided through private medical institutions and these institutions can be subsidized by the government; alternatively the government can directly undertake the provision of medical facilities. There can also exist a situation whereunder the government itself may produce goods for sale in the market in response to the satisfaction of private wants.

Let us imagine an economy in which a substantial part of the resources goes to satisfy public wants but the government produces little. This is the case of a private economy where a high value is assigned to the satisfaction of public wants. Or let us assume an economy where public production is important, but only a small share of resources is allocated for the satisfaction of public wants. This is the case of socialist economy where a low value is assigned to the satisfaction of public wants. Indeed, we choose any of the following combinations:

(a) Goods and services provided free of direct charge and produced by the government;

(b) Goods and services provided free of direct charge and produced by the private firms;

(c) Goods and services sold at the market and produced by the government; and

(d) Goods and services sold at the market and produced by private firms.

Since the scope of public sector activities is largely independent of that of public-want satisfaction, let us try to understand the rules that tell us when public production should be undertaken. There is no precise answer to this which may be based on definite rules. Such a decision is governed by a variety of factors ranging from technical considerations of relative cost to the broader issues to social organisation that transcend the limits of purely economic judgement.

Public Goods: Much has already been said about the nature of public goods in the preceding lesson. These are the activities, the production of which can be technically leased to private firms; however, such practice could be inconsistent with a democratic society as it is now understood. The qualitative content of these services, or the wants which they are to satisfy, is such that they must be supplied through public office. Even when supplied through private production, they require such close supervision that the situation is more or less equivalent to public production. Defence establishment is the most appropriate example of the activity that must be produced by public management. A somewhat similar situation applies to education. Although technically education can be provided through private institutions which can be subsidized by government yet the qualitative nature of the desired educational services make it essential to provide this facility through public management directly. In short, we may say that the inherent quality of public goods warrants that these must be provided through publicproduction management or through public sector.

It must, however, be remembered that alarger part of budgetary outlays of the government involves the purchase of more or less finished products from the private sector. For example, when the government undertakes the construction of a dam, the material used may be largely purchased from the private enterprises.

Public Production as an Alternative to Public Control: Second case of public production management arises when such management serves as a convenient, substitute for public control over the allocation of resources. Let us consider the case of monopoly control. The need for control would arise under the condition of barrier to entry and internal economics of scale. This is the case of natural monopolies like postal services and railroads, gas, light and local transport facilities. When these goods or services are produced in the private sector and regulating forces of competition are absent, public control of some sort will be required. Such control will be particularly needed where (1) demand is inelastic, and where (2) the wants in question are in the nature of merit wants so that their satisfaction has to be encouraged by public policy. Effective control in these two situations would check inefficiencies in allocation of resources. Public control is also required to ensure a desired state of distribution in such cases where (3) demand is inelastic, and where (4) purchase of the good in question constitutes a significant proportion of expenditure by low- income families.

Where controls over allocation are needed, the government may control the policies of private firms; it may replace private firms by public production; or it may adopt in-between forms of ownership and control. The choice among these three options will be governed by the degree or control necessary for the complexity of task. Where the need for intervention is slight, external control may be used to regulate monopoly. Where the need is extensive, public ownership may be a simpler way rather than opting for comprehensive controls over private firms.

When the objective is to secure adjustment in resource allocation, the technique of public ownership may be expected to secure the required adjustment more thoroughly than external control

does over private firms. Hence one's option may depend upon how strongly one feels about securing adjustment in resource allocation. The option between public and private production will frequently be a matter of judgement, not subject to a clear -cut decision on the grounds of efficiency. The decision then hinges on a choice between the principle that production management should be private, unless specific circumstances prevail under which management should be public, unless special circumstance compel up to go in for private management. A choice between these principles, or between various options, trascends grounds of economic efficiency. Political, social and cultural factors cannot be ignored. Taking a simpler view we may assume that public production should be limited to situations where it is clearly superior to private production under public control in terms of efficiency.

The aforementioned discussion shows. that the government is required to play an active role in the field of economic activity so far as the prevision of public goods is concerned. However several economists maintain that rather than limiting the role of government to those situation in which the private market system fails, three additional roles have to be assigned to the government. These are (1) as a competing source of initiative; (2) as an influence on the pattern of private consumption; and (3) as a means of redistributing incomes.

(1) Government as a source of initiative: Initiative can appear anywhere in the society. In a system of public production management, the managers may take opportunity to provide some service in a new or better way just as in the private sector. The Tennessee Valley Authority (TVA), which, besides providing other services, produces electric power is an example of successful government initiative in providing low cost power. Even in developing countriessuch initiate has been displayed by a number of public enterprises. For example, in India Bharat Heavy Electricals Limited (BHEL) and Oil and Natural Gas Commission (ONGC) have taken initiative and have been responsible for successful innovations in their respective sphere of activity. We may, therefore, argue that choice of public and private sectors is indeed very controversial. A new dimension has been added to it in recent years on account of the privatisation of several public production managements all the world over. This process was started in the U.K. in 1979 in a big way with the denationalisation of British Telecom, British Airport Authority, etc. In India too, this issue is being debated with seriousness. For our present study we may assume that private and public sectors can operate simultaneously and can work tolerably. We want ordinary production activities privately owned and run, and private goods allocated through free markets. We also agree that government must provide goods for the satisfaction of public wants and all other goods and services not suitable for the market processes. The present controversy here is not concerned with capitalism versus socialism as economic systems. It is about certain sectors of the economy in which private companies and public agencies compete for the privilege of development. We differ about the extent and power of government regulation. In terms of the economy as a whole, the areas under dispute are small; in terms of controversy, considerable. Here are some cases of turf that are underdispute.

Electric Power: In most of the countries power generation work is vested with the government. In fact certain projects are built primarily for the purpose of flood control and navigation and power is a by-product. Where the former two objectives are dominant, the private sector, even if permitted, may not come forth for the execution and maintenance of such projects. Now a days some developing countries have chosen to throw open the field of power projects to the private sector. The recent amendment to Central Electricity Act intended to allow private participation in power generation in India is an example in this context that at least in developing countries where there exists a scarcity of potential entrepreneurs, the government can play a sizable innovative role, especially in industry.

Role of government in changing the pattern of consumption: In some situations, the government rejects the decisions of consumers in the market and substitutes its own judgement. It discourages the use of liquor and tabacco through regulation and high taxes, and may prescribe standards to protect consumers in such fields as packaging and auto safety. Besides, there are cases

where the government acts to increase the supply and lower the cost of some goods or even makes the consumption of some goods essential. For example the government may ensure increase in the supply of synthetic khaddi by making it obligatory for producers to produce a fixed proportion of total cloth in the form of this variety and impose penalty on the defaulting producers. Weaker sections is an example of low cost Compulsory contributions to old age insurance and health are examples of compulsory consumption.

Role of government in redistributing income: Some government activities are designed to bring about a desired redistribution of income. Programmes relating to social security, welfare and unemployment insurance are implemented to provide income where earned income is inadequate. In addition, some public works are undertaken and some lines of production are subsidized to raise the incomes of a target group. For example government gives a variety of subsidies to persons engaged in agriculture.

CONTROVERSIAL BORDER AREAS BETWEEN PUBLIC AND PRIVATE SECTORS

Insurance: Issues keep cropping up in this field. In 1930 in developed countries, social security was considered a government invasion of the private insurance field, although, in theevent, private pension plan were probably stimulated by the heightened interest in this type of saving for the old age. In the early 60s, medical insurance for the aged became the point of controversy in the U.S. Insurance companies argued that voluntary private plans could do the job soon. Advocates of compulsory public insurance maintained that medical costs of the aged had become too high for their lower income, making illness another disaster against which the government ought to provide security. Finally compulsory public health insurance for everybody became the part of accepted institutions in that country and the controversy faded away.

Telecommunications: The jurisdiction telecommunications, comprising over communications satellite, television network, telephone and telegraph is also not free from controversy and battles have been fought over the issue of their control. In a large number of countries the communication network is owned and operated by the government. But in countries like U.S.A. and Britain the network is in the private sector. Keeping in view the crucial importance of communication system for national security, there exists a strong justification for keeping it in the government sector. Even in the United States where communications satellites and telephones network are run by private corporations, an exceptionally stringent government regulation is excercised. Of course, one objective of opting for private sector in this new field was to promote competition which would indirectly strengthen the national security due to technologicalimprovements.

There are several other cases where the policy must decide the public private mix of a activity in some detail. What should be the government role in providing the needed expansion of outdoor recreation facilities? Should we emphasize national parks, or should we make it easier for the private sector to undertake this activity with a reasonable public regulation. Should the public sector run touristindustry or allow private sector to do so by providing certain support services? Should a local body construct its commercial complex or sell land to the private builders for this purpose?

To resolve these questions, more than economics is involved. Economic analysis may show how close to our nation of a collective good a specific activity comes, how significant the divergency between private and social benefits and costs may be, or whether it will result in excessive monopoly power. But these considerations have to be weighed against the costs of the concentration of power in the hands of government and the imperfections of public production management.

What Balance Between Private and Public Spending?

We are by now aware that the spendingand production decisions in the private sector are determined by the forces of demand and supply in the market. In the public sector these decisions are

made through the political process. With the decision processes so different for private and public spending, how can there be an efficient division of spending and hence of resource use between private and public sector? It is important that some reasonable balance be struck. An economy, no matter how efficiently it meets consumers demands for private goods and services, will not be performing adequately if public services are insufficient and of poor quality. What good is the most desirable of automobiles if the roads are congested, badly surfaced, and unsafe?

A proper balance between the public and private sectors is, then one of the performance criteria of an economic system, one of the key elements in judging the efficiency of resource allocation. Yet there are so many obstacles to the achievement of this goal. For example, professor Galbraith has argued that the Amercial economic system imparts a systematic bias against public spending. On the other hand most of political parties in India are opposed to the rapid exapansion of private sector despite that the performance of public sector has been quitedismal in terms of economic efficiency. In the American situation the advertising agencies and the product development divisions of large corporations are fully devoted to the creation of more and new wants for private goods. Mass media is geared to stimulate peoples desire to spend. On the contrary investment in public service like hospitals, schools and park is much smaller and does not provide for rising population. As such there exists a strong justification for stepping up public investment in these and several other areas.

In developing countries, however, the concept of public sector has to be reviewed on account of their peculiar problems of backwardness. Public sector has to act as an engine of economic growth-there are no two opinions about it. But can it do so by assuming the entire responsibility of production management? The answer lies is not for two main reasons:

(i) the government is of financial resources to accomplish this task; and

(ii) It may not optimise allocation of resources. An ideal situation would warrant that public sector is allowed to operate only in such areas which are either of very sensitive nature or which would induce greater private investment. This is not to say that private sector should have full freedom elsewhere. The operational areas of private sector must be subject to government regulation. The precise extent of regulation would, of course, vary from one industry to another.

Intersectoral Resource Allocation

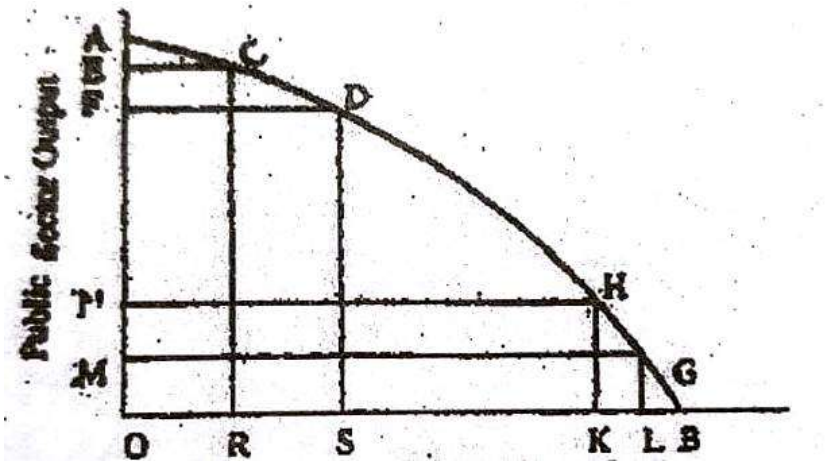
The preceding pages highlighted the basic rationale behind public, production management, limitation of free enterprise system and possible areas of conflict between these two. We shall now examine as to how the optimal mix of resource allocation is determined betweenthe public and private sectors. At any point of time there always exists an actual division of resources between the public sector and private sector. On the other hand there may also be conceptualised optimal division of resources known as social balance, given the preference patterns and effective demand of the citizens. The actual and the optimal intersectoral resource allocation may or may not coincide. In case of a deviation between the two, the actual resource allocation will call for an upward or downward adjustment so as to coincide with the optimal division/allocation such that social balance is established.

Indifference Curve Approach to Optimal Resource Allocation

This approach enables us to know as to what combination of public and private sector output can provide maximum possible satisfaction to the community in a given situation. This can be illustrated with the help of Figures 1, 2, and 3.

Figure 1 shows that production possibilities curve of the society with private sector output on x-axis and public sector output of y-axis. AB is the production possibilities Curve (PPC). Its concavity to

the origin shows that scarce resources cannot be substituted with equal efficiency between the production of public and private goods.

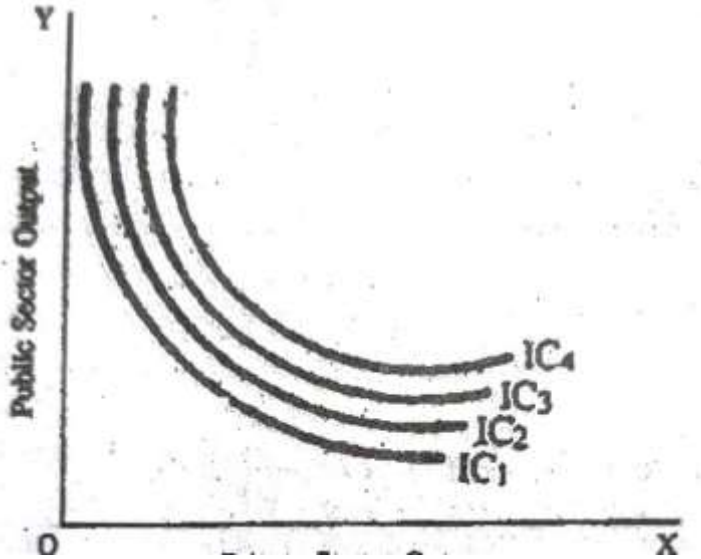


Private Sector Output

Figure 1

In, Figure 1, any reallocation of resources along the upper part of PPC would add more (RS) to private sector output than the amount of public sector output sacrificed (EF). As against this a movement along the lower portion of PPC will add more to the public sector output than theloss suffered in private sector output (i.e. when we move from G to H). Note that in both situations the operation of diminishing returns implies that resources cannot be substituted with equal efficiency.

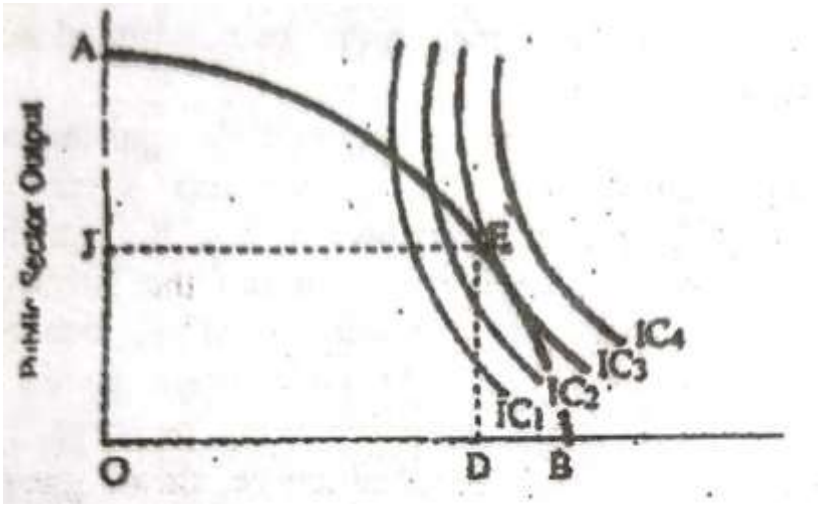
Given the community's production possibilities curve, let us now draw a map of social indifference curves IC_1, IC_2, IC_3 and IC_4 in Figure 2. Each curve shows the society's marginal rate of substitution (MRS) between consumption of private and public goods in giving a level of satisfaction along the curve. The higher social indifference curve shows greater level of social welfare. These curves are convex to the origin showing that along each curve there is a diminishing marginal rate of substitution between private goods and public goods in providing a given level of social welfare.



Private Sector Output

Figure 2.

Given the production possibilities curve of the society and a map of the social indifference curve, it becomes easy to establish the point of optimal intersectoral resources allocation between the public and private sectors. This can be accomplished by placing them on the same graph as has been done in Fig. 3. In other words, the production potential of the economy, as determined by its given resources and technology, is Drought into relationship with society's preferences for public and private goods, as made effective by the state of income, wealth, and political voting distribution. This results in the optimal intersectoral resource allocation established at point E in Figure 3where the PP curve is tangent to the social indifference curve IC_3.



Private Sector Output

Figure 3.

Providing OD output in the private sector and OJ output in the public sector. Point E is the point of optimal resource allocation because it is here that the production possibilities curve AB and the social indifference curve IC, have identical slopes; implying that at E, the marginal rate of substitution in the consumption of public and private sectors is equal to the marginal rateof transformation in the production of these goods. At point E, the effective social preference for the economic goods have been brought into equilibrium. Consequently, maximum welfare from the consumption of OD private output and OJ public output is obtained by the society as a whole. In other words at point E pareto optimality is satisfied. It is, however, possible that the actual intersect or division of resources in the society may not take place at point E, instead it may take place at F, G, or H which represents suboptimal resource allocation between the two sectors. These three points also represent the social imbalance in as much as at point H the resources of the society are not fully employed; at G and F although resources are fully employed, the level of society's total welfare is lower than that at point E on IC_3. Effort should, therefore, be made to allocate resources between the two sectors in such a way that actual division coincides with the optimal one.

SUGGESTED READINGS

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C.V. Brown and P.M. Jackson, Public Sector Economics, Oxford: Martin and Robertson & Company, 1978, Ch.2

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LESSON-3

PRINCIPLE OF MAXIMUM SOCIAL ADVANTAGE

Dear Student,

The principle of Maximum Social Advantage deals with the question of the size of public budget, or the level at which the State should operate, or the boundaries of its activities. It is, therefore, imperative that the patent tools of public finance should be used with judicious discretion and thoughtful planning. The purpose should be to design the policy and operations of the State so as to achieve maximum possible advantage or welfare for the society as a whole. The criteria adopted in this context may be given a collective flame of the Principle of Maximum Social Advantage.

Older writers on public finance made unrealistic assumptions and reached faulty conclusions regarding the best possible public finance policy or the optimum level of budgetary activities of the State. They assumed that the State was an entirely extraneous body to the main economy (which was considered to be a market economy). The State, according to them, was a necessary evil. But it was also an economic burden and, therefore, the best position was the one where the State activities were kept to the minimum. It was assumed that every tax caused a disutility to the society on account of the fact of a resource transfer from the society to the State. The welfare of the society suffered accordingly. It was on this basis that J.B. Say pointed out in the nineteenth century that "the very best of all plans to finance is to spend little and the best of all taxes, is that which is least in amount." It amounted to saying that the State activities must bekept to the minimum possible.

By agreeing with the unrealistic assumptions that all taxes drain economy's resources and that all public expenses restore these resources to the economy, we can lay down prescriptions regarding government's budgetary policy aimed atachieving maximum net social advantage. With this end in view, we make the following additional simplifying assumptions.

(i) The public revenue consists of only taxes (and not of gifts, loans, fees, etc.) and the State has no surplus or deficit budgets.

(ii) Public expenditure is subject to diminishing marginal social benefit and the taxes are subject to increasing marginal social disutility or cost. The State expenditure will be first directed towards those uses which are most beneficial to the society and the State taxes will be paid by withdrawing resources from those lines where they are least useful.

On this basis, as the State increases its taxation and expenditure activities, the social benefit from each additional rupee spent falls, while dissatisfaction from each additional rupee taxed increases. This way, a stage is reached when the rising marginal dissatisfaction of taxation becomes equal to the falling marginal benefit of expenditure. At this stage the State should stop expanding its activities. It is no longer beneficial to further expand State activities because the social benefit of the marginal unit of public finance operations is no longer larger than the corresponding social dissatisfaction. However, on all the intra- marginal units of taxation and corresponding State expenditure, there is a net gain and the sum total of this gain is the maximum possible when the marginal social benefit and marginal social cost are equated.

The above proposition of maximum social advantage can be depicted graphically also (Fig. 3.1). Through this graph, the optimum tax and expenditureactivity of the State can be determined. In the diagram, let public expenditure and taxation be measured along X-axis and let the social benefit and cost be measured along Y-axis. The quantities measured along Y-axis will be positive if measured

above X-axis and negative if measured below X-axis. As a result, the curve showing marginal social benefit from public expenditure will lie above X-axis and the curve showing marginal disutility from taxation will lie below X-axis. In the diagram, the curve BB' represents marginal social benefit accruing to the society from alternative amounts of public expenditure. In contrast DD' shows marginal social cost to the society from taxation levied by the State. The difference between BB' and DDmeasures the net social benefit or advantage (that is, the excess of the benefit over the cost) to the society, and is depicted by the curve NN. We find that when an amount OM is taxed and spent by the State, then thy marginal social benefit and marginal social disutility are equated (MP being equal to MC). Till then, the gain to the society is more than the loss. It is here that the State should stop expanding its activities. The net gain to the society (or the maximum possible social advantage) is equal to the area ONM. If the State stops its public finance operations at a level below OM, the society foregoes a possible gain. If the operations are expanded beyond OM, the total net benefit again starts falling.

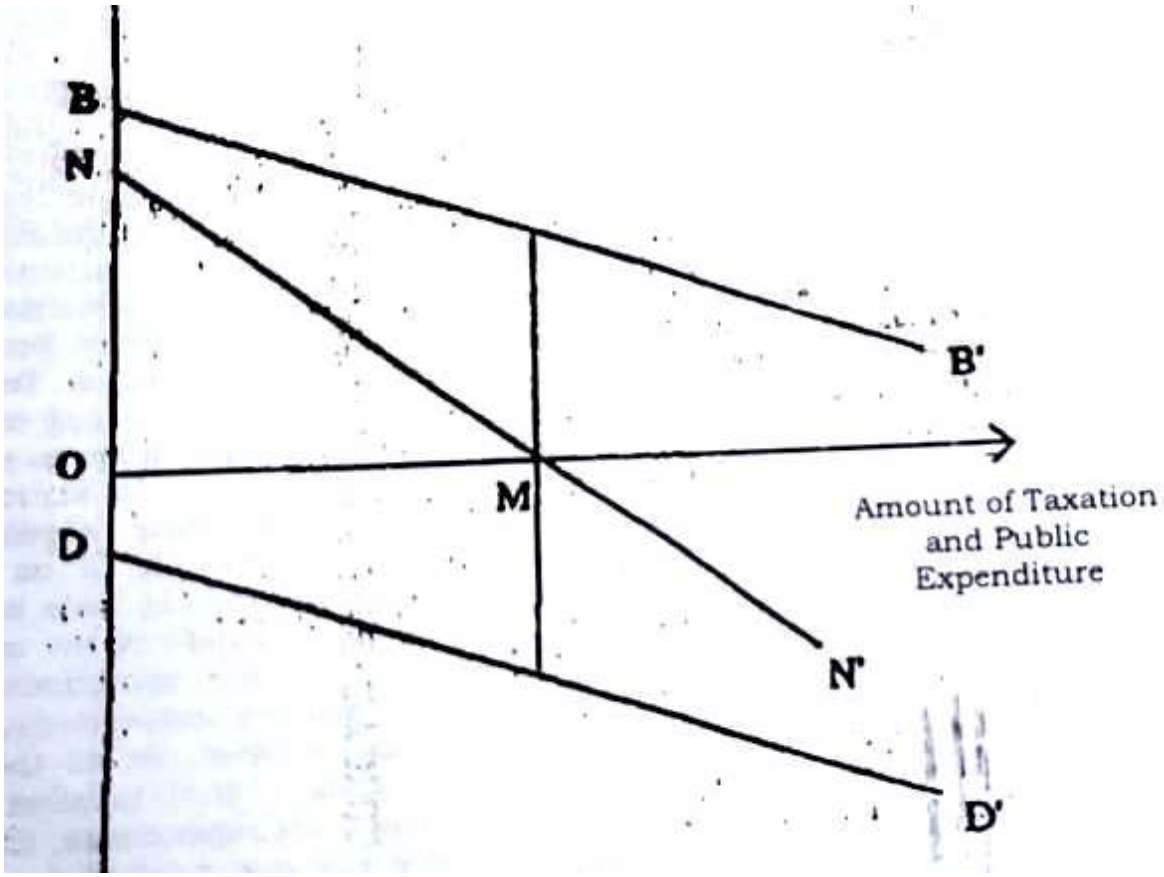

Fig. 3.1

Limitations

The simple exposition of the principle of maximum social advantage as described above suffers from some obvious limitations.

1. The principle wrongly assumes that the State is something external to the economy.
2. The principle can be refuted even on the assumption that the State is a superimposed entity uponthe economy. So long as it is essential to have certain basic State functions like that of protecting the society both from internal disaster and external aggression, it

follows that the benefits from the very existence of the State exceed the cost of its own maintenance. Actually. without these basic functions of the State, the very existence of the society cannot be guaranteed. Also, the availability of State protection to the society invisibly adds to its productive efficiency.

3. As Dalton points out, there is no basis for a generalisation that every tax is a burden upon the society and that every State expenditure is a benefit for it. We can explain this point with many a real life examples. A tax on the consumption of narcotics and other harmful drugs cannot be called a burden upon the society, though a similar tax on education or sanitation would be. Similarly, if the State undertakes the provision of social overheads and other public utilities, it leads to the emergence of external economies. Through them the cost of production falls, efficiency in production goes up and the economy benefits. The State, through its activities may succeed in breaking the vicious circle of poverty in an underdeveloped country and in this way it may return to the economy (in the form of economic growth) more than it gets from it.

4. Moreover, the benefits and ill- effects of a public budget to the economy generally spill over beyond the period covered by a given budget. Accordingly, it is a defective logic to argue in terms of a single budget only.

5. If we assume that all taxes are harmful and all public expenditure is beneficial, we arrive at some absurd results. For example, it will follow that the best course for the State would be not to levy any tax at all and finance all its activities through deficit financing only. It is very easy to demonstrate absurdity of this conclusion. We must remember themselves taxes that by or public expenditure do not destroy or create any resources. They only provide a means of transferring resources between private and public sectors of the economy. Any variation in overall resource availability is only an indirect result of budgetary operations.

6. Non-tax revenue includes fines, fees, profits from public undertakings, dividends from investments, use of the printing press, market borrowings and so on. These sources of revenue cannot be dismissed as unimportant either quantitatively or as irrelevant to the welfare and working of the economy.

7. Every State is committed to certain expenses a liability from which it cannot free itself easily.These expenses include maintenance of the State itself, defence of the country, maintenance of law and order in the society, imparting justice to the people certain measures, welfare servicing of the existing debt, and so on.

8. The effects of public finance operations are complex, widespread and often indirect. They are not quantifiable in simple and direct terms as is done in the Principle of Maximum Social Advantage. An imbalanced budget is often an effectiveweapon affecting various remedial and welfare measures and thereby maximising aggregate social advantage. For example, indirect taxes often change relative prices of commodities leading to changes in demand, consumption, production and investment patterns of the society. Thus it is not possible to link welfare and growth effects of public finance operations with the amounts of taxation and public expenditure and ignore other aspects of budgetary measures and policies.

9. To assume that the government budget should always be a balanced one is a highly unrealistic restriction. If the objective of the budgetary policy is to be of maximum advantage to the society, such a restriction is most likely attainment. to hinder its Contracyclical budgetary measures to offset fluctuations in demand generated by the

private sector are often suggested. Similarly, in an underdeveloped country a deliberate deficit budgeting may be needed to stimulate savings. and capital accumulation.

10. Logically, it is incomplete to determine an optimum level of State activities in terms of budgetary aggregates only. Full potential of budgetary operations is revealed only through their detailed study and associated policies. This fact brings in a host of relevant questions regarding institutional and economic framework of the country such as income and wealth inequalities, regional imbalances, and the like. To put it differently, the question of determining an optimum level of State activities leads us to consider in details the effects ofalternative budgetary policies at different levels and in all their details and without such an analysis no meaningful answer ispossible.

The Principle in Practice

The question is: Since the Principle ofMaximum Social Advantage suffers from so many limitations, should we not discard it totally? The answer is all emphatic NO. Instead, we should try to make it more realistic and capable of yielding policy conclusions. For this purpose, we first show that it is highly undesirable to limit the State's budgetary activities to the minimum possible. And then we try to find out the tests which should tell us as to whether the budgetary activities of the State are of net advantage to the society or not.

(a) The Case for State Activities :- The case for confining State activities to the minimum rests on the assumption of superiority of market mechanism. It assumes that the market is able to generate full employment, and is always more efficient than the public sector. Therefore, within its narrow sphere, the State should only make a judicious choice between alternative taxes and items of expenditure. But we note that these assumptions are highly unrealistic. In reality, market mechanism fails to generate full employment, leads to cyclical fluctuations and creates income and wealth inequalities. It need not succeed in realising high enough rates of capital accumulation and economic growth. Therefore, it is a duty of the State to remove these drawbacks.

Furthermore, we must remember that though competition is supposed to guide the economy according to consumer's sovereignty, in reality it is not so for two reasons.

Firstly, on account of inequalities of income and wealth, the demand pattern generated in the market does not really display true needs of the society. Quite a number of luxuries are demanded at thecost of necessities which the poor peoplecannot afford to buy for want of purchasingpower. There is also a shortage of merit goods due to their non-profitability.

Secondly, the market competition, in practice tends to degenerate into a monopolistic competition in which there is a lot of wastage on account of selling expenses, unutilised productive capacity, hoarding, speculation, and so on.

(b) The Tests:- Assuming, therefore, that the State cannot remain indifferent to the working of the economy, we proceed to look for the tests of maximum social advantage. To make these tests realistic we treat the State as a part and parcel of the economy. This being so; the sweeping statements like the ones asserting that all taxes are leakages from the economy's resources and that all public expenditures are additions to them lose their meaning. Instead, it becomes relevant to analyse the net effects of budgetary activities covering not only the budgetary aggregates as such, but also their detailed composition, and associated budgetary polices.

However, this is not an easy task. The effects of many State activities cannot be quantified. As examples, we can mention the removal of untouchability, spreading of education, improvement in health and sanitation, and so on. Almost every State activity has widespread effects and it is nearly impossible to estimate all of them. In other words, it is very difficult to devise objective tests of benefits

and losses to the society and thereby determine (estimate) the quantum of social advantage generated by State activities.

Dalton's Tests: However, even under these difficult (but realistic) conditions. Professor Dalton gives us certain objective tests according to which it can be ascertained whether public finance operations are adding to the social advantage or not. These tests are formulated by, assuming that there are certain generally accepted desirable objectives which the society should try toachieve, namely, the following.

(1) Preserving the society. If it is agreed that the society, as it exists, is worthpreserving, then a system of public finance which ensures adequate protection to the society against both foreign aggression and internal disruption certainly adds to social advantage and is worth pursuing.

(2) Economic Welfare of the Community. This welfare involves two aspects: (a) an improvement in production, and (b) an improvement in the distribution of national income.

An improvement in production should not be taken to mean an increase in current output as such, but basically an increase in the productive capacity of the economy on a sustainable basis. An increase in current output through capital consumption cannot be termed an "improvement in production because it is not sustainable in the long run. Improved productive capacity implies capital accumulation, better utilisation of productive resources, and an increase in productivity of workers with a corresponding addition to the social advantage.

An improvement in the distribution of national income covers both "efficiency" and "equity" dimensions thereof. Efficiency in distribution relates to aggregate of satisfaction only, while equity relates to the sharing of aggregate satisfaction between members of the society. Normally, the two aspects are 80 intermixed and interdependent that a decision involving efficiency also affects equity and vice versa. The welfare aspect of distribution of national income, therefore, does not, lend itself to an easy treatment. Quite often, we are not even able to find out whether certain decisions would add to the efficiency of distribution or not. In other cases, the efficiency and equity tests might clash, so that improvement in one leads to a deterioration in the other. It is not, therefore, possible to lay down full-fledged objective criteria of social advantage. But we can recommend some common-sense steps about which on general grounds, there is not much chance of a difference of opinion. We can, for example, advocatereduction in inequalities of income and wealth, reduction in unemployment, uplifting the standards of living of the people, bringing about a higher rate of economic growth, bringing about economic stability in the economy and so on.

Hicks Tests: Mrs. Hicks has also suggested two sets of criteria for judging whether a particular public finance operation or policy adds to the net social benefit or not. The first is called the production optimum and the second is the utility optimum.

According to Mrs. Hicks, an optimum in production is achieved if through reallocation of productive resources it is not possible to increase production of any given commodity without reducing that of some other. Obviously, this criterion is not only ambiguous but may also be misleading. Increasing production of one commodity may necessitate reducing that of the other, but the total output may increase. Mrs. Hicks' production optimum may apply in a situation of full employment and complete utilisation of existing productive capacity. However, it must be noted that budgetary operations and policies are not always successful in achieving even these conditions. If they could, many of the economic ills of the world of today would not have been there. Again, this test of production optimum applies in short-term only. In the long run, it is always possible to augment productive potential

of the economy such as through creation and expansion of social overheads, capital goods sector and investment in human capital.

Utility optimum of Mrs. Hicks is related to the composition of the national output and relative importance of its components. A variation in this composition would automatically lead to a variation in the utility derived from it. When a state is reached whereby such a variation in theutility derived from GDP cannot be increased, the utility optimum is said to have been achieved. The difficulty with this criterion arises out of the fact that utility, and therefore, the relative importance of various goods and services cannot be quantified. Furthermore, such measures of relative utility are always subject to revision over time and place and as also between individuals.

CONCLUSION

All said and done, we find that the basic idea contained in this principle is useful even when it is not possible to adopt it in strict quantitative terms. In line with the reasoning of this idea, we can proceed with the aim of increasing the usefulness of overall budgetary policy of the government for the society. To this end, we first equip ourselves with adequate theoretical knowledge and empirical evidence relating to the immediate and long term repercussions of various budgetary measures. We have then to choose between various alternatives which budgetary policy may offer including, for example, the level of State activities, the composition of tax and non-tax revenues, tax rates, and similar other considerations regarding the expenditure side of the budget. All these decisions have to be taken in the light of our objectives and the extent to which they can be achieved in practice. The optimum size of the government budget is not a fixed quantity. It depends upon several relevant considerations, e.g. the objectives, their practicability, their relative costs and benefits, the administrative capability of the government including the accounting system and programme and performance budgeting, the institutional and economicframework of the society and the like.

LESSON-4

TAX SYSTEM

Dear Student,

In this lesson we will discuss the meaning of tax, characteristics of a good tax system and the evaluation of Indian Taxation System. As you know that Public Finance is concerned with the income or revenue raising and expenditure-incurring or spending activities of the public authorities, and with the adjustment of the one with the other. Without going into definitions or the scope of Public Finance, it shall be appropriate to mention that a public authority, more precisely, a government devises receipts to finance expenditure. These receipts may take the form of taxes, charges, borrowings, gifts and profits from government enterprises. The most common method of financing government activities is by taking resort to the fruitful device of taxation. In every country, the largest or substantial part of public revenue is raised through taxation.

According to Dalton, *"a tax is a compulsory contribution imposed by a public authority, irrespective of the exact amount of service rendered to the tax-payer in return, and not imposed as a penalty for any legal offence." Thus tax is a payment in return for which no direct or specific quid-pro-quo is rendered to the taxpayer*.

Characteristics of a Good Tax System

Characteristics or features of a good tax system may be formulated from various objectives, principles or canons of a tax system. Discussion in the previous sections clearly indicated that these also form an integral part of its features. Similarly additional features may be searched in the issued associated with its administration, effects, kinds, forms and timing etc. However, in this connection it is helpful to keep the following points in mind.

Firstly, to consider a tax system in isolation from other items of public revenue, or from public expenditure, is an incomplete andunrealistic attempt. Taxation in only one part (though an important one) of the total budget of the government. Its effects are always intermixed with those of non-tax and expenditure parts of the public budget. Thus within the overall framework of the total revenue, effects of taxation depend upon its structure, tax rates, and so on. Equally important is the consideration as to what is being done on the expenditure side of the budget, since that influences the attitude and reactions of the taxpayers.

Formulation of characteristics of a goodsystem by considering its effects *does not imply that the non-tax items or the public expenditure can be ignored.* This is done only for the sake of clarity of analysis and understanding. Any choice is bound to harbour several conflicts and contradictions, necessitating an adjustment. Further it is being implicitly assumed that taxation forms a major portion of the public revenue, and that the expenditure side of the budget is being administered in an optimum manner, or at least it is not working against the objectives of the tax system.

Secondly, a tax system has many dimentions. We should look into its volume, composition, rates, coverage., timings or collection, mode of collection and so on in order to grasp effects in their totality. Alternatives sets of these tax-features represent alternative tax systems with distinctive effects. Each system has its corresponding merits and demerits in terms of social and economic effects. Normally, therefore, it is rather difficult to evolve a tax system which is the best or ideal in every respect.

Thirdly, it is nearly impossible to choose a theoretically best system. For example, we cannot quality the theoretical concepts of marginal utility and disutility and use them in practice. Similarly, in theory many tax proposals may appear very convincing, but it may not be possible to implement them. Furthermore, it is generally assumed that the administrativemachinery is effecient and honest. In real life, this may not be true. In addition, every government also faces several administrative, political and other difficulties. For example, in theory it is assumed that a government has an absolute right over the property of all its subjects; but in practice it is not a right which can be exercised fully and without limits. Some taxes, though theoretically sound, may involve a heavy cost of collection. In some countries, there may be long drawn legal procedures (such as passing of the tax measures by legislative bodies) preventing the government from changing its tax policy quickly and easily. In actual practice, therefore, the government has to think of these various problems while working out the best possible tax system in the country. It will generally settle for a compromise between these conflicting considerations and will therefore end up with a sub-optimal tax system. Furthermore, if the government fails to make a correct assessment of the effects of alternative tax-measures, it will be all the more difficult for it to achieve an ideal tax system.

Fourthly, the attitude of the tax-payers is an important variable in determining the contents of a good tax system. Normally each tax-payer desires to be free from a tax burden but does not mind if the tax burden is borne by others. If this is not so, he feels discriminated against. It is essential that, a good tax system should appear equitable to the tax-payers. Similarly, overall burden of the tax system is of equal importance. In addition, the attitude of tax-payers is also influenced by a host of other factors like prevalent political situation (such as war or peace), natural calamities like foods and droughts, economic situations like, prosperity or depression and so on.

Fifthly, it is a well-known fact that changes in a tax system can be brought about only slowly and in stages. Even if it is decided to have an entirely new tax system, the authorities cannot suddenly disrupt the existing one. They have to gear their tax machinery to the new system.

On account of the above mentioned limitations, the authorities cannot hope to satisfy all the objectives or considerations, and have to be satisfied with a compromise between them. Still, in general, a good tax system should run in harmony with important national objectives and if possible should assist the society in achieving them. It should try to accommodate the attitudes and problems of the tax-payers and should not lose sight of the administrative practicability or the goals of social and economic justice. It should also yield adequate revenue, for the treasury and should be flexible enough to move with changing requirements of the State and the economy. Such a dynamism of the tax system is all the more relevant for a developing economy where the structure and rates of taxes have to be constantly reviewed. We may also say that the interests of the administrative machinery, the economy, the State and the individual tax-payers can be in conflict with each other and a good tax system tries to accommodate them all in the best possible manner.

A good tax system recognizes that the tax-payer bas some basic rights. He is expected to pay his taxes but not undergo harassment. With this end in view, tax laws should be simple in language and the tax liability should be determinable with certainty. The mode and the timings of payment should suit the convenience of the tax-payer to the extent possible. At the same time, a time system should be equitable as between different tax-payers. It should be progressive so as to levy an equitable burden on all.

Developed free market economies are subject to cyclical fluctuations. A good tax system should be flexible enough to counteract them. In underdeveloped countries, on the other hand, the main problem is not that of cyclical fluctuations, but that of unleashing the forces of economic growth and productivity. For this all possible sources of savings and capital accumulation should be exploited.

Paucity of private savings and investment necessitates should be exploited. Paucity of private savingsand investment necessitates a greater reliance upon the budgetary savings as the main source of capital accumulation. In the private sector, the tax system should encourage and consumers to go in for durable consumption goods. This will reduce their expenditure on consumption items over time and release larger amounts for savings. Heavy import duties should be used to curb import of luxuries and cut the demonstration effect. Within the economy, the demand for luxuries should be reduced while the consumption and production of health-giving and efficiency producing goods should be encouraged.

Another problem that a developing economy like India faces is that of regional disparities. Tax measures should be so devised as to counteract this tendency and bring about a more equitable economic growth. In the process of economic growth, a developing country is likely to face the problem of inflation. A good tax system should help in counteracting the inflationary forces. It should discourage unnecessary consumption and boost up production along desired lines.

It can be argued that all direct taxes related to income and wealth should be replace by a single tax on expenditure. The Meade Report argues that a universal expenditure tax [UET] comes sufficiently close to the creteria of a good tax[1]. The case for expenditure tax is supposed to be stronger in a country like India since it rewards saving and taxes consumption. However, this tax has some practical limitations. It poses difficult problems of data collection, and is administratively very cumbersome. Moreover, if applied universally, it is not equitable between different income levels. The Chelliah Committee rejected the proposal of replacing income tax by a tax on expenditure for such like reasons.

Tax Structure in India

Following are the main features of tax structure of India:

(i) Tax revenues form about 20 percent of the total- national income of India. Considering the fact that India is a low income economy, the tax burden is quite high. Among the Third World Countries, India is one of the highest taxed countries. There are three main reasons for high burden, of tax as in India (a) spectacular rise in expenditure on defence and other non- developmental activities (b) increase in expenditure on development planning (c) violation of the canon of economy.

(ii) Over the last six decades tax revenue collected both by the central and state governments has increased many folds.

(iii) Indian lax system has become more and more unjust. The ratio of direct to indirect taxes has declined. Thus there has been an increasing reliance on indirect taxes which is not good since they fuel inflationary trends in the country.

(iv) The population of the economy is around 106 crores and working population is about 40 percent of the total population. But only 1 percent of the working force is taxed in India. Thus India tax structure relies on a very narrow population base.

(v) The total tax revenue is highly insufficient to meet the expenditure requirements of the economy. Over time there has been an increasing reliance to internal and external debts.

(vi) The structure of taxes in India has under gone changes. Earlierincome tax and corporate tax were important sources of union revenue. Now excise duties are important. Similarly,

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[1] The Structure of Reform of Directo Taxation-Report of a Committee of the Institute of Fiscal Studies. (Chairman. J.E. Meade). Allen And Unwin, London. 1978

land revenues were important source of state revenue. Now value- added tax is more important.

(vii) In India, the direct taxes are progressive, indirect taxes are differential in nature. In other words, direct tax rates increase with increase in income and indirect tax rates are higher for luxury items and lower for necessities.

(viii) The agriculture income is wholly exempted from the income-tax. This is despite the fact that a new class of rich farmers has emerged in the country which can easily pay taxes. Tax revenues can be easily increased if income of these farmers is taxed properly.

(ix) The Income tax structure is very complicated and illogical. However, recently steps have been taken to rationalise and simplify the whole system of taxation.

Evaluation of the Indian tax system

The system largely conforms to cannon of equity. The direct taxes are steeply progressive, though indirect taxes are becoming more and more important. There is a differential rate schedule with high rates on costly and luxury items and lower rates for those articles which are normally used by the poor. However, the rural rich have still to be brought under the tax system to make them to contribute their due share.

The tax yield is reported to be not very income elastic. With the increase in national income, the tax yields in general and from direct taxes in particular have not increased at a rate high enough to show a high degree to income elasticity. Direct taxes were 2.1% of the GNP in1950-51. It has increased to just 3 percent recently. With greatly enhanced rates the percentage should have risen. This did not happen chiefly because agricultural income is virtually free of tax and also because of a slow and haphazard growth of national income and because of evasion.

The tax system has stood the test of time in respect of flexibility. It has permitted resource mobilization within the broad framework of the existing tax structure. Incentives for savings and investment have been provided for proper channelisation of resources. The system has admitted new taxes to make the tax structure integrated, so that income escaping a tax maybe brought into the net by other levies. Especially after Prof. Kaldor's suggestions, some new taxes were introduced. Except the expenditure tax which was lifted because it was unproductive and administratively unsuitable, taxes on wealth, gifts and capital gains tax, besides income tax,form an integral part of the direct tax system.

Both the coverage and the rate schedule have been modified from time to time so that the tax system plays a truly functional role for economic growth, stability and social justice.

In respect of canon of convenience, several, measures have been taken such as self assessment, advance payment, deduction of tax at source, assessment on the basis of returns submitted etc. However, changes in tax laws in quick succession disturb long-term business decision-making. Indirect taxes, although considered to be regressive, are quite convenient from the collection point of view.

Simplification of the tax system has also been attempted. Income tax returns have been simplified and made handy. The Boothalingam Committee also made certain suggestions for rationalisation. The major suggestion of having standard rates in excise duties, corporate tax and a uniform rate of 1% on capital had not found favour with the government. There is also a feeling that out of a desire to plug all loopholes and to make the law fool-proof and also to provide for judicial decision, the law has beenmade very tedious and complicated. The more we try to check tax avoidance and evasion, greater are the difficulties created for honest tax payers. Recently, Chelliah committee has a

recommanded simplification and retionalisation of tax system in India. The government has proposed a bill in the form of New Tax Code for public discussion. The bill will be implemented with the financial year 2011-12.

Evasion and tax avoidance are reported to be very high. Prof. Kaldor estimated thisconcealment and evasion of tax to the extent of 10 to 20 per cent of the declared income. Because of this, the black money accumulation is of considerable magnitude. It is growing every year. The unaccounted funds are invested into business through diverse means and added further to the existing funds of black money. Apart of it is squandered and wasted lavishly on social functions and on anti-social activities.

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LESSON-5

PRINCIPLES OF TAXATION

Dear Student,

Since all agree that the tax system should be fair and equitable, we begin the discussion of tax principles with the equity objective which is the theme for the present lesson. Everyone agrees that the tax system should be equitable, i.e., that each tax-payer should contribute his or her 'fair share' to the cost of government but there is no such agreement about how the term 'fair share' should be defined. A variety of approaches may be followed but two stands of throught are more prominentand distinguished.

One approach rests on the 'benefit principle'. According to this approach, dating back to Adam Smith and other earlier writers, an equitable tax system is one under which each tax-payer contributes in line with the benefit which he or she receives from public services. *According to Smith, "the subjects of every state ought to contribute towards the support of the government, as nearly as possible, in proportion to their respective abilities, i.e. in proportion to the revenue which they respectively enjoy under the-protection of the state."*[1] It implies that the amount of tax should be such that could be sufficiently compensated by the benefits which the government confers on the tax-payers. Thus the benefit principle is not one of the tax policy only, but of taxexpenditure policy also[2].

The other stand rests on the 'ability to pay' principle. Unlike the first approach, under this approach the tax policy is largely determined independently of the expenditure side. Here the tax problem is viewed by itself, independent of expenditure determination. Under this approach, each tax-payer is asked to contribute in line with his or her ability to pay.

Neither approach is easy to interpret or implement. For the benefit approach to be operational, we must know expenditure benefits for each individual tax-payer. On the other hand, for the ability to pay principle to be applicable, we are confronted with the problem of the measurement of the ability to pay. These difficulties notwithstanding, both approaches have important application in designing an equitable tax structure.

Benefit Principle

Historically, the benefit principle of taxation derives from the Contract Theory of the state as understood by the political theorists of the seventeenth century. Subsequently, the utilitarians like Bentham formulated this into the 'greatest happiness' principle, as it is understood to-day, has come to us through the first cannon of taxation as propounded by Adam Smith. The principle natural proclaims the justice of the nature of 'do not take more than you give'. It means that the collective payment of taxes by the people should not exceed the value of the benefits conferred upon them in the form of public services by the government.

Under the strict regime of benefit taxation, each tax-payer would be taxed in line with his or her demand for public services. Since preferences vary, no general tax formula could be applied to the aggregate of taxpayers. Each tax-payer therefore, would be taxed in line with his or her evaluation. Still, some pattern might be expected to emerge. The typical mix of private goods purchased is known to vary with the income level of the consumer households and similar pattern may be expected to prevail for social goods as well. But, instead of finding out the quantities bought with varying income, we find out how much various consumers are willing to pay for the same amount. Except in the case of a social

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1 Adam Smith, An Inquiry into the Nature and Causes or Wealth or Nations, Vol. II. Sixth Edition, 1950, p. 350.

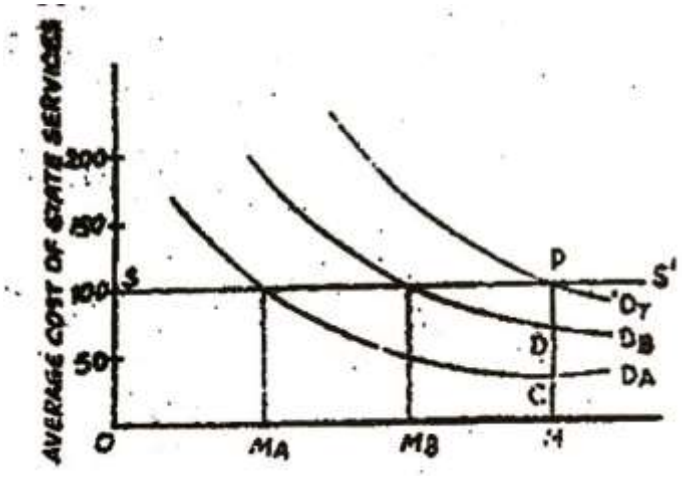
2 Richard A Musgrave and Peggy B. Musgrave, Public Finance in Theory and Practice, McGrave- Hill-book Company, New Yord, 1984, p. 228.

good being an inferior good' consumers are expected to ask for more publicgoods as their income level rises. Let us suppose, to simplify that tax-payers have the same taste- structure so that the person with the same income value the same amount equally. People with income of Rs. 20.000 value a given level of public services, at say, Rs. 100 with units of the public service supplied, that would be wining to pay Re. 1.00 per unit. Making the assumption that marginal utility of money falls with increase in income, others with income of Rs. 40.000 would be willing to pay a higher per unit price, say Rs. 2.00. In such a case, a proportional rate of tax will be applicable. In case they are not willing to pay Rs. 2.00 per unit and instead pay Rs. 1.50, the tax schedule shall become regressive. If they pay more than Rs. 2.00 per unit a progressive tax schedule will be in order.

The appropriate tax formula depends upon the preference pattern of the tax-payers. More specifically, it depends upon the income and price elasticity of demand for social goods. If income elasticity is high, the appropriate tax prices will rise rapidly with income; but if the price elasticity is high, the increase will be dampend. Since income elasticity $E_Y = \left\{\frac{\Delta Q}{Q} / \frac{\Delta Y}{Y}\right\}$ and price elasticity $E_P = \left\{\frac{\Delta Q}{Q} / \frac{\Delta P}{P}\right\}$ we have $\left\{\frac{\Delta P}{P} / \frac{\Delta Y}{Y}\right\} = E_Y / E_P$. The left side of the equation expresses the elasticity of tax price with respect to income. If this elasticity equals 1, both change at the same percentage rate and the ratio of tax to income remains constant. This is to say that the tax is proportional. If E_Y/E_P is lessthan unity, the tax is regressive[1].

More rigorous formulation of the benefit approach has been propounded by Eric Lindahl. He discussed it in the context of two tax payerswho have the liberty to reveal their preferences for state-services against the corresponding tax liability. He took the case of two individuals by assuming that they constitute the society and then tried to work out the optimum level of state activities and the corresponding equilibrium division of tax burden between the two. This shows a kind of exchange between the taxes paid and the services received.

In the following diagram let SS' be the supply schedule of the state services in the sense that this is the per unit cost of the service supplied.



Supply and demand for state service

[1] James M. Buchanan, "Fiscal Institutions and Collective Outlay." American Economic Review, May, 1964. pp. 227, 253.

Let there be two members of the society. These members are A and B. A has a given demand schedule D_A and B has his own demand schedule D_B for the state service. These individual schedules show the prices which A and B would be willing to pay for different quantities of public goods. D_T curve represents the total demand for public goods. This has been drawn up by vertical agrregation of individual demand curves D_A and D_B. The optimum equilibrium output of public good is at point P with OM quantity of the good. Consumer A shall pay MC cost per unit while B shall pay MD cost per unit wherein MC + MD should be equal to per unit cost MP at which the supply of public good is made available. *Thus, the consumers are paying in line with the benefit they receive from the public service*.

Ability-to-Pay Principle

Under the ability-to-pay principle people should contribute to the cost of government inline with their 'ability to pay': Under this approach, the tax problem is viewed by itself, independent of expenditure determination. A given total revenue is needed and each taxpayer- is asked to contribute in line with his or her ability to pay. This doctrine has been in vogue for at least as long as the benefit approach; A good account of its history is found in E.R.A. Seligman's book Taxation in Theory, and Practice (2nd edition), Princeton University Press, 1908)

The basic tenent of the ability-to-pay approach is that the burden of taxation should be shared amongst members of the society so as to conform to the principle of justice and equity in taxation, and that this equity criterian will be satisfied of the tax burden is apportioned according to their ability to pay. *This principle, therefore calls for people with equal capacity to pay the same, while people with greater ability should pay more. The former is referred to as horizontal equity and the latter a verticle equity.*

In order to translate this principle into a specific tax-distribution pattern, we have to bring-in the concept of equal sacrifice on the basis of which we shall operationalise the idea of equity and justice in taxation. Before doing this we have to answer many questions. It must be decided by what objective index ability to pay can be measured, the term 'equal' in the equal sacrifice principles needs to be defined more precisely and assumptions must be made regarding the slope of the income-utility curves so that individual sacrifices can be measured and any particular concept of equal sacrifice can be expressed in terms of a sacrifice rate schedule.

Index of Ability to Pay

There can be differences of opinion as to what constitute the ability to pay of a tax-payer. An objective index might be sought in wealth or property of a citizen or in his consumption expenditure or in his income. Subjectively, the choice of an appropriate index may be related to the sacrifice that a taxpayer undergoes in meeting his tax liabilities.

The ability-to-pay principle in its earlier version was formulated in terms of faculty rather than income. The term faculty, or ability, as used in the Elizabethan poor law, referred to property, and same was the case in the early legislation of the American colonies[1]. As society progressed industrially, there followed a shift in emphasis to accept income as an index of ability to pay rather than property. Adam Smith, while explaining the first canon of taxation used income as an index of ability and as time passed income came to be regarded as a true measure of ability-to-pay. Although the debate about the suitability or otherwise of income as an index of ability to pay is not yet over[2], but by common opinion income has come to be regarded as a reasonably appropriate index. This being so, we now proceed further and try to explain the equal sacrifice principle.

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1 Richard A. Musgrove, the Theory of Public Finance, (International Student Edition), 1959, p.94

2 See Richard A. Musgrave and Peggy B. Musgrave, Public Finance in Theory and Practice, 4th edition, 1984, Chapter 11.

Since J.S. Mill, the vertical equity has been viewed in terms of an equal sacrifice prescription. Tax-payers are said to be treated equally if their tax payments involve an equal sacrifice or loss or welfare and the loss of welfare, in turn, relate to the loss of income by way of tax payment. Three distinct concepts of equal sacrifice were advanced by Cohen-Stuard and Edgeworth. These include equal absolute, equal proportional, and equal marginal sacrifice.

When we proceed the discuss the equality of sacrifice, we must keep in mind that sacrifice is being caused on account of loss of money surrendered to state as taxes. Sacrifice is related to the utility that units of money have for tax payers. The magnitude of sacrifice will depend upon the behaviour of utility of money: Is it constant, Is it declining, Is it increasing? We shall, however, assume that the utility of money is diminishing. We shall, also, assume that all the tax payers have identical utility schedulesbecause they have identical tastes, and that inter- personal comparisons of utility are possible. The discussion that follows is based on the above assumptions. The three cases of equal sacrifice can be explained in simple mathematical symbols as follows:

Equal Absolute Sacrifice U (Y) -U (Y-T)... (1)

Equal Proportional Sacrifice

$$\frac{U(Y)-U(Y-T)}{U(Y)} \text{ ....(ii)}$$

Equal marginal Sacrifice $\frac{dU(Y-T)}{d(Y-T)}$ .....(iii)

U stands for Utility, Y for Income and T for tax.

Equal Absolute Sacrifice implies that the loss of utility or sacrifice on account of paying the tax should be the same for all. We should try to analyse its implications for the tax-rate structure.

Equal proportional sacrifice means that the proportion of sacrifice (loss of utility on account of paying the tax) to the total utility of income should be same for every tax payer.

Equal marginal sacrifice means that the loss of utility on account of the marginal unit of money paid as taxes should be the same for every tax payer.

The case of equal absolute sacrifice is simple, when the marginal utility of money is constant. Under this situation equal absolute sacrifice implies equal tax. Since each unit of money has the same utility, collect the same amount of tax from every tax payer (irrespective of his ability) it will impose equal sacrifice on every taxpayer. However, as we have assumed that the utility of money is diminishing, equal absolute sacrifice should necessitate equal rate of tax instead of equal tax. In other words, equal absolute sacrifice, assuming marginal utility of income as, diminishing implied proportional taxation and not equal taxation. We can illustrate it with the help of fig. 5.2

In Fig. 5.2 the marginal utility of money is constant. There are two individuals A and B and both are tax payers. The individual A who has OA income surrenders BA units of money as tax. The individual B who has OC income surrenders DC units of money, as tax. BA is equal to DC. Although the income of B is greater than A and therefore his ability to pay is greater, yet both incur equal absolute sacrifice by surrendering the same amount as tax. The rectangle on AB and the rectangle on CD equal in area. Now contrast this with Fig. 5.3. The marginal utility of income is diminishing. Let A pay AB and let B pay CD. The sacrifice as measured by the area ABEF and CDGH is not equal although both the individuals are paying equal tax as before. If both the individuals are to incur equal sacrifice, individual B should pay more which is possible when the tax is not equal but is imposed as a proportion of income i.e., on an equal rate.

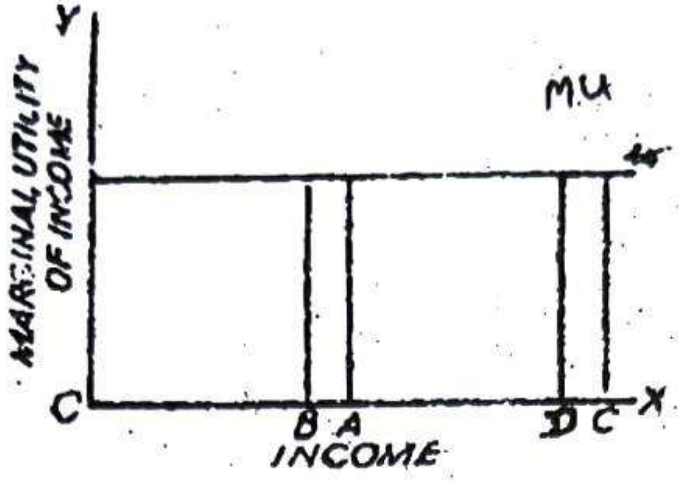

Fig. 5.2

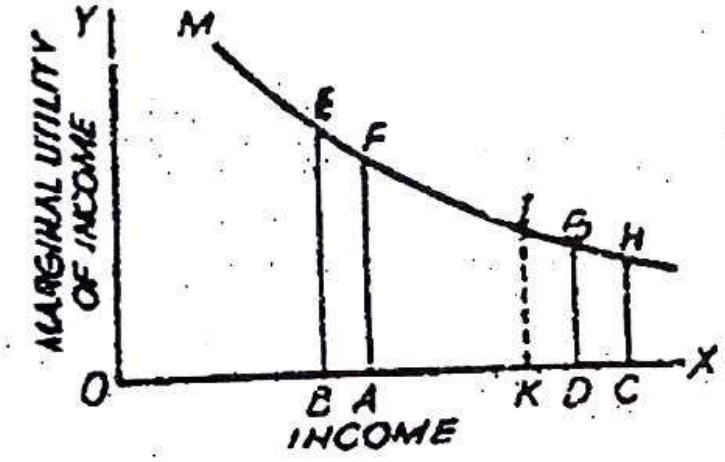

Fig. 5.3

If AB/OA is 1/5, individual B should pay KC amount of tax (and not CD) so that KC/OC is also equal to 1/5. The area ABEF may then be equal to CKIH i.e., the sacrifice of the tax payers may become equal. We thus, reach the interesting conclusion that equal absolute sacrifice implied proportional taxation and not equal taxation as is sometimes wrongly believed. But this is not all.

Equal absolute sacrifice implies proportional taxation only when the rate of decline of marginal utility of income is the same as the rate of increase of income. If, however, the rate of decline of marginal utility of income is greater than the rate of increase of income, equal absolute sacrifice will imply a progressive tax i.e., a tax rate which increases with increase in income for faster rate of decline of marginal utility of income as compared with the increase of income, would necessitate more than proportionate rate of tax to collect more amount than a proportionate would do, to equalise sacrifice. Thus, with the marginal proportional/progressive taxation depending upon the rate of decline of the

marginal utility of income is compared with the rate of increase of income. It could even indicate regressive tax rate if the rate of decline of the marginal utility of income was smaller than the rate of increase ofincome.

Let us now consider the case of equal proportional sacrifice. If marginal utility of income is constant, equal proportional sacrifice clearly suggests a proportionate rate of tax.

We have, however, assumed that marginal utility of income is diminishing. Under this condition, a proportional rate would imply that high income tax payer will surrender lesser proportion of his total income utility as compared with low income tax-payer and therefore proportional sacrifice suggests a progressive tax rate. There are, however, three conditions under which proportional sacrifice will indicate a proportional rate of tax.

(i) If the marginal utility of income is constant,

(ii) If the marginal utility of income is rising such as could be shown by a rising schedule represented by a straight line passing through the origin, and

(iii) If the marginal utility of incomeschedule is convex to the origin, and asymptotic to the two axis. The behaviour of income utility schedules as listed above is far from usual. A constant and a rising schedule is practically ruled out. The third type schedule implied that the marginal utility of income falls very slowly in the beginning and then after a sudden increase in the rate of decline, it again declines very slowly. As the utility schedule is asymptotic to Y axis the sudden increase in the rate of decline in the marginal utility of income would set in very soon. It is this nature of the utility schedule which makes one to give it up ill preference to a normal diminishing utility curve. On the basis of a normal or usual type of diminishing marginal utility of income schedule we reach the conclusion that proportional sacrifice suggests a progressive rate of tax.

Thus, we find that equal absolute sacrifice and equal proportional sacrifice, on the assumption of a diminishing marginal utility of income, suggest a progressive tax-rate. We may, therefore, conclude that, from the point of equity or justice in taxation (which is termed as the requirement that taxpayers suffer equal sacrifice) a progressive tax-rate would meet the requirements of equality of sacrifice. Let us now try to carry this analysis a little further.

We have discovered that progressive taxation implied increasing rate of taxation with every increase in income. In other words, it means taking away greater amount of money byway of tax from tax payers as their income increase. If in doing so the marginal utility of income left with the tax payers is equal, not only have we made sacrifice equal, we have only made the total sacrifice for the whole society least. This is in pursurance of the law of equal marginal utility. We should so devise the tax rate that marginal utility of income or the marginal utility of tax paid is more or less equal ultimately, supporters of the equity view adopted equity of the marginal utility of the income left after paying the tax, as their final criterion for the tax rate from the point of view of justice in taxation.

R.A. Musgrave, has given another explanation to the relative utility of equal absolute equal proportional and equal marginal sacrifice, by which he has tried to explain not only their relative importance but also the extent of progression in a particular tax situation. If we retain the assumption that all persons have the same marginal utility of income schedule irrespective of their income levels and marginal utility of money decreases as income rises, the tax structure remains indeterminate without a clear specification as to which concept of sacrifice we have in mind while applying the equal sacrifice principle. This is shown in thefigure 5.4.

In this Fig. income is measured in the horizontal axis and utility derived from income is measured vertically, the lower panel measuring vertically the marginal utility and the upper

pannelmesuring the total utility. Suppose that the MU and TU schedules show respectively the marginal and total utilities derived by two individuals one of them being rich and the other poor. By assumption, the same schedules are applicable to both the individuals. Suppose, the rich man has an income of OR and the poor man has an income of OP, the total utility derived by them from their income being respectively AB and CD. Let US assume that the state has decided to raise from the two individuals a total sum of RT in Tax. Under equal absolute sacrifice principle, the taxliability of the rich man will be RR_1 and that of the poor man will be PP_1so that RR_1+PP_1= RT. The reduction of total utility from the income of the rich man in the post-tax situation is BE. The corresponding amount of the poor man is DF, and BE = DF. But note that through DF, $\frac{BE}{BA}=\frac{DF}{DC}$. In other words, in this method of distribution of the tax burden though the equal absolute sacrifice principle is being satisfied, equal proportional sacrifice principal is not being fulfilled. *According to equal proportional sacrifice principle,* the rich man's tax liability should be increased to RR_2 and the poor man's liability should be decreased to PP_2 so that in the post-tax situation $\frac{BG}{BA}=\frac{DH}{DC}$.

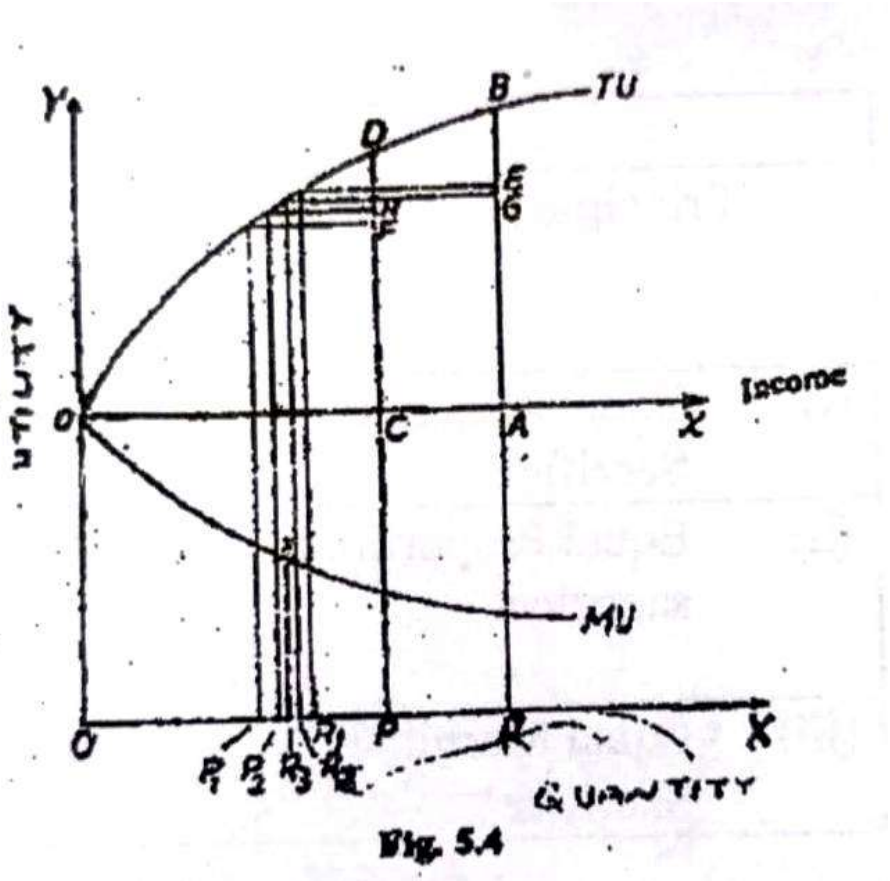

Fig. 5.4

But again, in this distribution of tax burden, equal marginal sacrifice principle is not being fulfilled. The marginal utility of income of the rich man is not equal to the marginal utility of income of the poor (see the lower panel of the figure). Therefore, if the equal marginal sacrifice principle is accepted, the rich man's tax burden should be increased further to RR_3 and the poor man's share should be reduced to PR_3 so that in the post tax situation the marginal utility of income of both the individuals become equal, namely RP_3.

The relative tax liability and the relative progressiveness of the tax structure under the different sacrifice principles may be summarised in the following table:

		The Liability of the		
Principle of sacrifice		**Rich man**	**Poor man**	**Relative Progressiveness of tax structure**
(i)	Equal Absolute Sacrifice.	Least	Most	Least
(ii)	Equal Proportional sacrifice.	More	Less	More than under (i) and less than under (iii)
(iii)	Equal Marginal Sacrifice	More	Least	Most

It should be carefully noted that the third column of the above tax shows only the relative progressiveness of the tax structure under different sacrifice principles. The tax structure assumes the most progressive nature under equal marginal sacrifice principle.

Supporters of welfare view argued for the equality of marginal utility of income left with the taxpayer after paying the tax or the equality of the marginal utility of the tax paid, from the point of view of maximising the welfare. To raise a given amount of revenue, the tax rate structure should be so framed so as to result in Least Aggregate Sacrifice. Least Aggregate Sacrifice will result when the marginal utility of income left with the taxpayers after paying the tax is equal. Thus, the equity view and the welfare view both advocated equality of marginal sacrifice. The Principle of Least Aggregate Sacrifice came to be regarded as Principle of Taxation from equity (justice in taxation point of view) as also from welfare point of view.

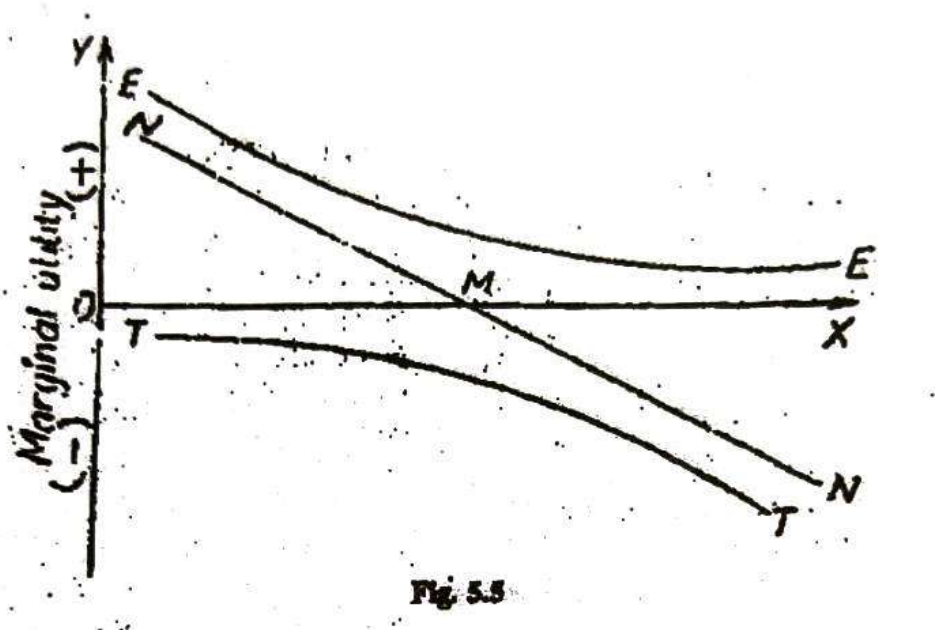

Fig. 5.5

Objections raised against this approach of the Principle of Taxation. The more fact that aggregate sacrifice is the least does not ensure that the welfare is maximum. We must relate the

concept of least aggregate sacrifice with theadvantage obtained from public expenditure in order to maximise welfare. This means that the expenditure side has also to be taken into account in the two approaches given above i.e., the equity and welfare approach expenditure side was taken as given. We cannot do so if we want to maximize the welfare. Maximisation of welfare requires determination of the point to which taxation and expenditure should be carried. Without it welfare cannot be maximised. Thus the least aggregate sacrifice came to be related with the benefits of the Public Expenditure. The welfare will be maximised when the Marginal Social Cost (on account of Taxation) is equal to Marginal Social Benefit.

In the figure 5.5 EE indicates the marginal benefit or utility from successive unit of expenditure. TT indicates the marginal sacrifice from successive units of tax. The net benefit to the society is indicated by curve NN which is derived by deducting TT from EE. The curve NN cuts the X-axis at point M. At this point (M), the gain from marginal unit of public expenditure is equal to the loss from the marginal unit of taxation. In other words Marginal social benefit is equal to Marginal social cost. Now the welfare of society is maximum. Since in this approach we look intothe effects of public revenue (taxation) as also public expenditure, it is named as the Principle of maximum Social Advantage and is attained when Marginal Social cost is equal to Marginal Social Benefit.

LESSON-6

INCIDENCE OF TAXATION

Dear Student,

In the present lesson we propose to discuss the problem of shifting of taxation. The problem of shifting or incidence of taxation is commonly conceived as the problem of who pays it. The incidence of a tax means the final money burden of a tax. According to Dalton, "The incidence is upon those who bear the direct money burden of the tax[1]. The total money burden of a tax is equal to the total yield of tax to the public treasury. In the words of Shirras, "The problem of incidence is the analysis to determine who pays the tax, i.e. on whom the money burden of the tax falls or rests[2]. According to J.K. Mehta, "sometimes incidence is defined as the direct money burden of a tax... It is necessary to note that all direct and monetary burden should not be called incidence[3]. Immediate money burden of a tax maybe called impact as it is not essential that the person who pays the tax in the first instance will also bear the ultimate or final money burden. This final money burden is -termed as incidence of tax.

Indirect taxes are those which are legally imposed upon a person but may not be wholly paid by him. In other words, indirect taxes are capable of being shifted. It is possible to do so because incidence and impact of indirect taxes, by definition, fall on different persons. The process of transfer of a tax from its original contributors to its final resting place includes three stages. First, a tax may be imposed on some person; secondly, the tax may be transfered by him to a second person; thirdly, it may be ultimately borne by this second person and cannot be transferred to others. The impact of tax is on the person on whom it is imposed. The process of its transfer is known as the *Shifting ofthe tax.* The settlement of the ultimate money burden of tax is called is incidence. Impact is the immediate money burden of a tax which falls on the person who pays it in the first instance; Shifting of a tax may be defined as the general process of transferring burdens by the original tax payer to some-one else. Incidence of a tax has been defined as its direct money burden, and it is on the person who cannot shift it further.

Besides impact and incidence, a tax also produces various other repercussions in the economy. Taxes can bring about changes in trades and, industry and in the economy as a whole. They can influence the existing distribution of resources between different uses. They can also influence the distribution of income and wealth and we study all such repercussions under 'Effects of Taxes'. In this lesson we propose to explain the shifting, incidence and effect of taxes.

We have said above that shifting can takeplace only in the case of indirect taxes. Direct taxes cannot be shifted. This is so because the essential condition for shifting of a tax is the existence of exchange or sale transactions in goods or services. In the goods or services which has been taxed does not enter into any exchange transaction, shifting would not be possible. It is only because the taxed commodity enters into exchange that shifting becomes possible. Shifting of a tax is possible in two ways (i) forward and (ii) backward. When a manufacturer or a dealer who is dealing in commodity which has been taxed, tries to shift the tax by raising the price of the commodity to the consumer, it is known as forward shifting. It is so because after production sale is the next step forward and as we try to shift the tax through this next step forward i.e. increasing the price in the process of sale, it is called forward shifting. Shifting, however, does not imply that a person will succeed in shifting the whole of the

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1 Huga Dalton, Principles of Public Finance, [Tenth (Revised) Edition), 1939, p. 51.

2 Fipolay Shirras, the science of Public Finance, 1925.

3 J. K. Mehta. Public Finance, 1965. p. 88

tax. The success in shifting the whole or part of the taxdepends upon various other factors which we shall discuss later. Backward shifting implied a step backward i.e. shifting the tax to the process of production or manufacture. In other words, backward shifting of the tax implied that the producer is trying to pass it on to the factors of production by reducing the cost of production. When the producer succeeds in paying less for the same item than before e.g. reducing the wages of labourers for the same work as before, the tax is shifted backward. Backward shifting may be possible if labour efficiency rises. Labour may, however, be paid lower. This is cost reduction. Cost reduction may also be possible in forward shifting when the commodity is sold to the buyer at the old price. Organisedlabour will not ordinarily permit backward shifting to labour. Backward shifting may be through reduction in the price of raw material. The producer may himself have to bear the tax. In this case, there is no shifting. We must here distinguish between various methods of cost reduction which takes place on account of increased efficiency in production. The producer may shift the tax on to the buyer by selling the commodity at the pre-tax price-thereby denying him the benefit of cost reduction. The tax has been shifted on account of cost reduction, but it is a case of forward shifting as the tax has been passed on through exchange transaction to the buyers. We may mention here that although backward shifting too can take place, but forward shifting is more common.

It is seldom possible to shift the whole tax fully either backward or forward. A part of the tax burden remains with the original tax- payer. Various theories have been put forward to explain the shifting and incidence of taxation. We may classify earlier theories into two: (i) Concentration theory or surplus theory of shifting and incidence of taxation, and (ii) diversion or diffusion theory of shifting and incidence of taxation. Some theories were built up combining something from both the approaches. Besides the above we have now the modem theory of shifting and incidence. Let usexplain in brief the earlier theories.

The concentration theory or the surplus theory of shifting and incidence stated that every tax, irrespective of the fact of its impossition on anyone tends to concentrate on particular class of people. It was not specifically mentioned where the tax will concentrate but it was suggested that the tax would concentrate on the class of people that enjoys surplus from their products. The physiocrates elaborated this theory and specifically stated that every tax will tend to fall on landlords as agriculture is the only productive activity being associated with land and capable of generating surplus. Their argument was simple, when a factor is paid just enough to meet it subsistence it has no surplus to pay the tax. It a tax is imposed on it, either the tax will be shifted or the factor will be driven out of employment. Thus a tax on wages cannot stick; for there is no surplus in wage incomes as wages are fixed on the subsistance level. A tax cannot be levied on capital; for it yields no surplus and if a tax is forced on it capital will be driven out of production. Thus the incidence of tax will always be on landlords as they have surplus to pay the tax. Even if you impose a tax on a commodity the tax will tend to be shifted to fall on the landlords. Thus if commodities are taxed, it will lead to a rise in the cost of subsistence.

This would result in higher wages, for wages are determined in accordance with subsistence. It will also lead to increase in other factor incomes but would fail to create any surplus anywhere. Ultimately, the tax will be paid by landlords as their income alone has surplus. They came to a very convenient conclusion. As taxes tend to fall on surplus and as surplus is available only from land, let there be only one tax in the society that a single tax on land. The surplus theory of shifting and incidence and its simple conclusion of a single tax on land has not been accepted by any government at any time in history, but at the same time it does contain an important element of truth, i.e., that all taxes come out of surplus and if levied without element of surplus, theycannot be shifted. Taxes on any base other than surplus, will tend to shift.

The diffusion theory of shifting and incidence took the view on the other extreme. The concentration theory of surplus maintained that tax will fall on surplus or on a class of people enjoying

surplus irrespective of the imposition of the tax. Thus according to this extreme view the incidence of the tax is only on surplus or on the class enjoying surplus. The final resting place of the tax is one. The diffusion theory on the other hand, maintained to stick for a while on the point where they are imposed, but eventually universal diffusion of taxes throughout the society takes place. Thus the final resting place of a tax is not one (surplus or the class or people enjoying surplus) but multiple. Whenever a tax is imposed in the community, it gets diffused and no one escapes its incidence. The process of diffusion works through the process of shifting which in turn works through the process of exchange. It is through the repeated exchange that a tax is diffused amongst the members of a community. The tax does not fall on anyone or anyone class of persons. It is diffused throughout the society. Therefore, the question of discrimination between different classes of people and the objection that revenue is being collected for the whole society at the cost of one particular class of people is fully met once we reject the surplus theory to accept the diffusion theory of shifting and incidence. Besides, there is no special problem of the distribution of the burden of taxation and all the problems of equity or justice in tax distribution are automatically solved. Let us not try to see briefly the basic truth underlying the two theories.

The concentration theory of the surplus theory of tax stated that incidence of a tax is always on surplus. According to it, surplus occurs from agriculture and, therefore, there should be a single tax on land.

Now if the incidence of the tax is on surplus, then in terms of the diffusion theory surplus should exist everywhere and thereforethe tax should get diffused throughout the society. Thus according to the concentration theory, a tax tends to be concentrated, whereas according to the diffusion theory, a tax tends to be diffused. Both the theories state partial truth. A tax tends to be concentrated and diffused according to the conditions that are fulfilled.

The Modern theory : The modern theory tries to analyse the conditions which lead to diffusion of taxes. In other words, the theory attempts to explain the extent to which taxes can be shifted i.e., (diffused) and cannot be shifted (i.e., get concentrated). The modern theory of shifting and incidence is basically an application of the theory of price and output determination when the cost tends to be affected on account of the imposition of the tax. The problem of shifting and incidence is generally to indirect taxes. Taxes on commodities are the best examples of indirect taxes. Let us, therefore, explain the theory with the help of a tax on a commodity payable by the producer of the commodity.

A producer has dual price relationship with regard to the product produced by him. On the one hand, he has a price relationship with the customers which is established between him and the customers through the selling price and on the other, he has a price relationship with the factors of production needed for his product which is established through the purchased price of the factors of production. When a tax is levied on the commodity, the producer will try to shift it on to customers or consumers through the selling price or else he will try to shift it to the factors of production through the purchase price of factors. The former is forward shifting and the latter is backward shifting. It is quite possible that a producer may succeed in shifting his tax partially backward and partially forward and shift the entire burden to the customers and factors of production. By and large, backward shifting is very difficult, for purchase price of factors of production is determined, through the market forces where there is a demand for them and competitive bidding by prospectiveemployers. It is difficult to make them accept lower remuneration. Those already employed cannot be induced to accept lower remuneration in view of organisedlabour movement in the most of the countries. As such shifting and incidence is generally a case of forward shifting. Let us not try to understand how the forward shifting works itself out.

Forward shifting takes place from theproducer to the consumer. The producer enjoys surplus in the form of profits and the consumer enjoys surplus in the form of consumer's surplus. The producer

wants to retain his surplus intact and therefore desires to shift it to the consumer. The consumer resists it because he does not want to reduce his consumer's surplus. The producer will try to force the price up by shifting the tax and try to succeed by threatening to cut down production or threatening to withold supplies from the market The consumers will resist it by threatening to reduce consumption of the commodity. The producer will try to force the tax on the consumer the consumer will resist it and the outcome of this struggle will depend upon the relative capacity of each to beat tax or to resist the tax. Thus the issue of shifting of the tax ultimately resolves itself into the conditions of supply of the production on the one hand and the conditions of demand for the product on the other. In other words, the extent of shifting will be influenced by the fact whether the commodity is produced under perfect competition or under monopoly or any other condition. It will also depend upon the nature of demand and supply i.e., elasticity of supply and demand. Let us understand the latter aspect first.

In fact, it is the statement of the theory of shifting and incidence that a tax tends to be shifted between the producer and the buyer in proportion to the elasticity of demand and the elasticity of supply.

Let DD be the demand curve and, SS the supply curve for a particular commodity which intersect at point P. PM is the price per unit, and PN or MO the amount sold at the given price PM.

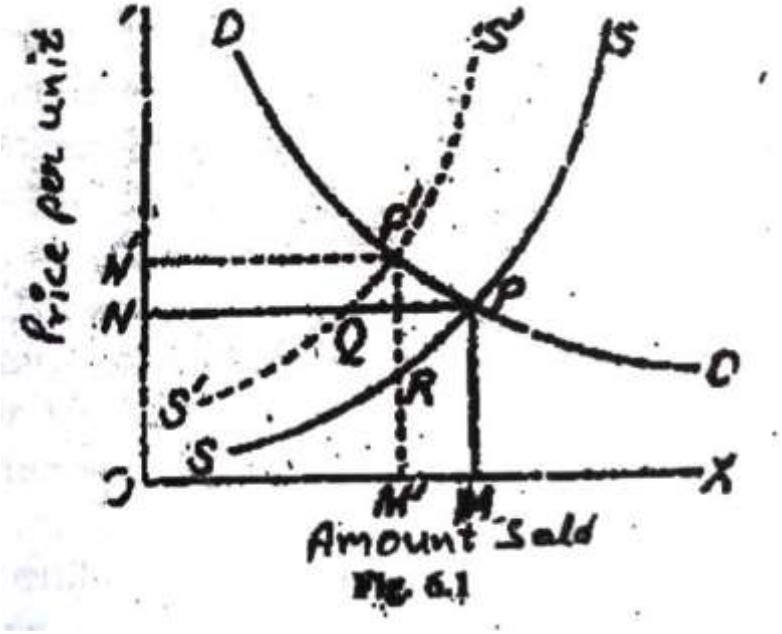

Fig. 6.1

Let us now suppose that a tax is imposed on the commodity and collected from the producer. The producer will try to shift the whole tax to the consumer and therefore the supply curve will rise by the amount of the tax. Let S'S' be the new supply curve, P'M' the new price, and P'N' the new amount sold, and P'R the tax per unit of commodity.

After the imposition of the tax, the price rises by P Q and the sales fall by PQ or MM. The incidence of the tax P'R, is divided between buyers and sellers. The buyers bear P'Q the sellers OR.

Now the elasticity of demand Ed = MM/OM divided by P'Q/PM' and the elasticity of supply, Es MM/OM divided by QR/PM.

The tax has been shifted and shared between the buyer and the seller in the proportion P'Q/QR.

Also Es/Ed= $\frac{P'Q}{QR} = \left(\frac{MM'}{OM} / \frac{QR}{PM}\right) + \left(\frac{MM'}{OM} / \frac{P'M}{PM}\right)$

This shows that the incidence is divided between buyers and sellers in the ratio of elasticity of supply to the elasticity of demand. When the elasticity of supply is greater than the elasticity of demand, the producer will be able to shift a greater part of the tax to the consumer and vice versa.

We have discussed and explained the shifting and incidence with the help of figure wherein price was determined by forces of demand by supply. In other words, we assumedperfect competition in the market and determined the market price through competitive demand and supply curve.

Conditions under monopoly differ from those under perfect competition. A monopolist has control over supply and the price, the charges for his product is such that it yields him the maximum profit. Any change in the price that he can influence be adjusting his supply will take his net profit less than the maximum, so when a tax is leived on the monopolist, he cannot shift the entire tax easily, as is sometimes conveniently assumed. The imposition of the tax alters the cost conditions. He has, to adjust his supply with the demand condition being given, for attaining the new optimum price which will maximise his net monopoly revenue. The adjustment will come by equalising the net marginal cost with marginal revenue. The figure6.2 explains it.

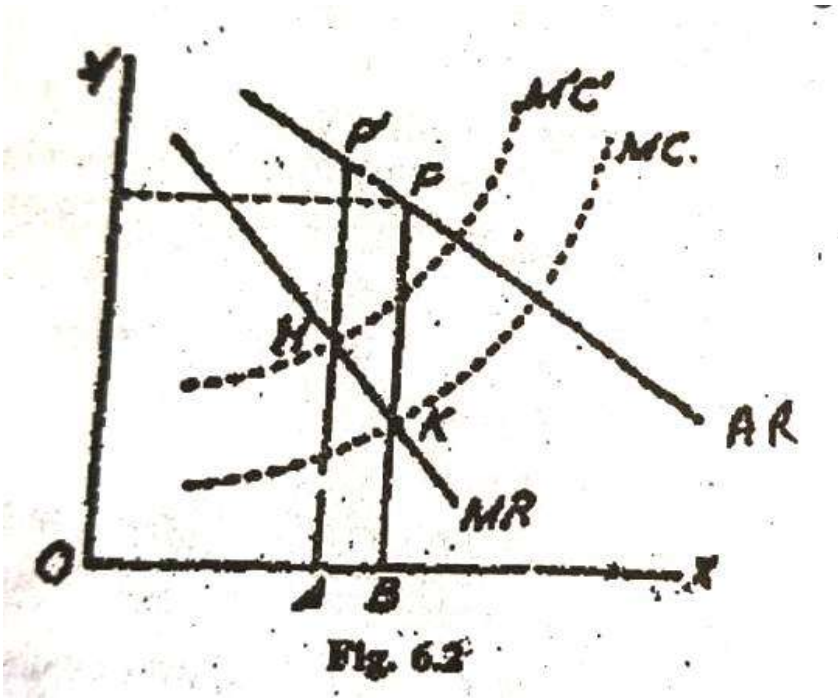

Fig. 6.2

AR is the average revenue curve (demand schedule) and MR is the marginal revenue schedule. MC is the marginal cost schedule before the tax is levied and M'C' is the marginalcost schedule after the tax is levied. Before the tax is levied the producer is in equilibrium at OA output and at AP' price because his marginal revenue and marginal cost are equal at this level of output. His monopoly profit is maximum at this level of output. With the imposition of the tax the whole position prior to the imposition of the tax is disturbed. The new marginal cost, schedule, is M'C'. which intersects the marginal revenue schedule at a point H. The producer is inequilibrium when he produces OB output and charges BP as price per unit. Compare AP', pretax price, with BP. The price has not risen by the whole amount of the tax. Part of the tax is being borne by the monopolist himself.

It is clear, therefore, that a producer may have all the temptations to shift the entire tax to others, but he will not succeed in doing so. A number of conditions govern the extent of shifting of a tax. Important amongst them are the nature of demand and supply elasticity, the cost conditions of the supply and the size of the tax.

Theory and measurement of tax incidence

Operation of the tax system sometimes becomes costly in the sense that the tax burden exceeds what the government gets in terms of revenue. Operation of a tax involved costs of its administration and compliance, as well as an excess burden or dead weight loss which arises as the conditions of efficient resource use are interfered with. Everyone agrees that the second most important requirement, after the equity principle, for the tax structure to be good is that the taxing process should be efficient. Tax administration should not be wasteful and compliance cost for the taxpayers should not be unnecessarily large. Moreover, the 'excess burden' or the 'dead weight loss' should be minimised.

Before the discussion of dead weight losses or excess burden is taken up, let us discuss the problems of administration and compliance cost very briefly here. We already know that assessment and collection of taxes involve personnel and equipment. Provision of personnel and equipment extends to provide important pubic service, and like any other public services, it should be provided efficiently. The desired quality of such service should be provided at minimum cost. This cost is subject to large economies of scale. Overhead costs can be spread over the taxpayers. The higher tax rates could be made to yield higher revenue without greatly adding to costs. At the same time, the cost of administration per unit of revenue yield increase with the complexities of the tax laws aswell. In setting criteria for efficient administration, following issues are involved:[1]

(a) First there is the choice of appropriate technologies and administrative producers. Say, use of computers can reduce the cost and provide detailed information although it is almost impossible to check all tax returns in detail. Only a limited number of returns are carefully audited. There is, therefore, the question of 'how much' and how the returns should be checked and audited so as to make enforcement more effective.

(b) There is the question of making tax compliance efficient as in matters of legal rules, better compliance can be secured either by threatening a higher penalty for offence, or by spending more on enforcement machinery so as to increase the probability to being caught in case of tax evasion.

(c) Next is the question of how complex the tax structure should be. An equitable tax structure becomes complex and in conflict with efficiency criteria. The complexities also add to the administration and compliance costs.

(d) Finally, it is evident that tax administration in a federal system becomes more costly as the administrative apparatus get duplicated many times.

On the other hand, compliance cost is substaintially larger than administration cost. As Musgrave says a total compliance cost of about $10 billion would not be surprising. This is a significant amount and a multiple of administration cost. Policy here must choose between equity considerations which may call for a more complex law, and the saving in compliance cost which goes with simplification.

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[1] Richard A. Musgrave and Peggy B. Musgrave, Public Finance in Theory and Practice, Mc Graw-Hill Book Company, New York, 1984, Chapter Fourteen.

Excess Burden or Dead-Weight loss

Here we examine a second and more sophisticated aspect of tax efficiency. If a taxpayer pays Rs. 100.00 in tax, the burden which this amount imposes on him may well be in excess of this amount. Unless imposed in the form of a lump-sum tax such as a head tax; which is unrelated to economic activity, it interferes with economic decisions and distorts efficient choice. This distortion is burdensome to the taxpayer, while being of no help to the Treasury. Such a burden is referred to as excess burden, deadweight loss, or efficiency cost.

Almost all taxes except a head tax in which everyone pays the same amount create distortions in efficient choice. Taxes may affect household choices among various consumer goods, between present and future consumption or savings, and between leisure and income. In order to analyse tax distortions in the choice between two consumer goods X and Y caused by a tax on Y only, while assuming the division of income between present and future consumption and time allocation between work and leisure to be given and fixed.

In the figure 7.1 market demand and supply for X and Y products are shown. DK and DK' are the respective demand schedules while SV show the (partial) equilibrium supply schedule for both X and Y. Pre-tax equilibrium in the case of these goods is at point A. Price being OS and the quantity OC. Now a unit tax, SS is imposed in Y thus raising the supply schedule to S'V' and the new equilibrium is at G. The price, inclusive SS' GF. Since we have assumed cost to be constant, consumer bears the entire burden SS' GF. Prior to tax, the consumers would have paid OSFL for OL amount now paid OS'GL, the GF is being paid as tax.

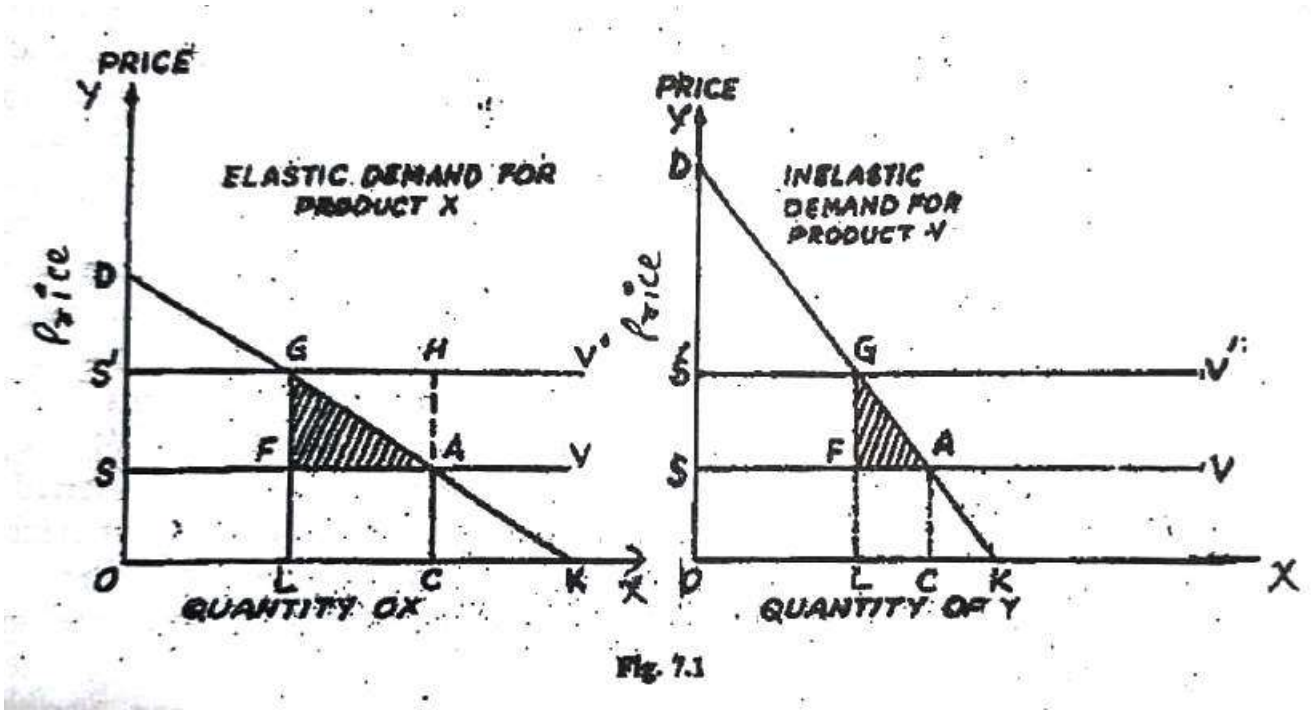

Fig. 7.1

This however is not a complete description of the consumer burden. Prior to tax consumer paid OSAC for OC amount but would have been willing to pay ODAC, thus consumer received a surplus equal to SDA. After the imposition of tax, the surplus has beenreduced to S DG. They have suffered a loss of surplus equal to SS' GA. Of this SS' GF is offset by the governments revenue gain but the triangle PGA remains as the net loss or 'excess burden' to the economy.

It an equal amount of unit taxis imposed X commodity whose demand is comparatively more elastic, the magnitude of excess burden is greater. As may be seen by rotating DK around point A as the pivot, the triangle FGA becomes greater as demand becomes more elastic and vice-versa. If demand is wholly inelastic, consumers do not adjust their purchases of price changes and therefore, the tax cannot interfere with consumer choice. In such a case there will be no excess burden.

Assuming constant cost, the excess burden is given by triangle FGA while

FGA = $\frac{1}{2}$ FGHa (Fig I above)

FGHA= $\Delta P \times \Delta AQ$

FGA = $\frac{1}{2}$ FGHA

FGA = $\frac{1}{2}(\Delta P \times \Delta Q)$

With ΔP equal to the unit tax and price elasticity of demand E = $\frac{\Delta Q}{Q} \times \frac{P}{\Delta P}$, this triangle FGA equals $\frac{1}{2}(\mu^2 E \times Q/P)$. If demand is wholly inelastic so that E is zero, excess burden at so equals zero and then rise with E or elasticity of demand. Also note that excess burden rises at the square of μ. For the case of an ad-valorem tax, we have t = Δ P/Pand by similar substitution obtain FGA = $\frac{1}{2}$ (Et^2PQ)where, in equilibrium μ = tP. The triangle FGA for the case of a non-linear demand schedule becomes an approximation of the true efficiency cost or excess burden only.

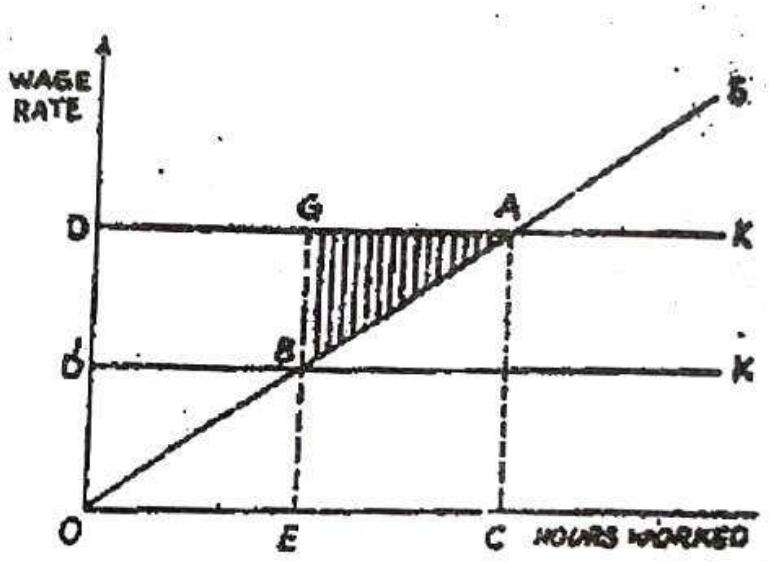

Fig. 7.2

A similar analysis applies to a tax on wage income and the choice between income and leisure. In the diagram 7.2, let OS be the supply schedule of labour and DK be the demand schedule. Point A represents the pre-tax equilibrium with OC hours worked and OD rateof wage. To simplify, we assume a perfectly elastic demand for labour. As a tax an wage income is imposed at a rate D'D/OD, the net demand schedule drops down to D'K'. The new equlibrium is at B. with hours worked failling to OE and the net wage to OD'. Tax revenue equal D' DGB and the entire burden is borne by workers.

Prior to imposition of the tax hours OC were worked at a wage OD and Total wages paid were ODAC. Since the transfer earnings are equal to OCA, ODA was thus a rent or suppliers surplus. After the tax has been imposed, this surplus declined to OD' B. The decline in surplus equals D' DAB, of this D'DGB is offset by the gain in revenue, leaving the triangle BGA as the net loss or excess burden or deadweight loss. This burden will be smaller, the less elastic is the supply schedule and vice-versa.

In the earlier discussion, the measure of excess burden was viewed in terms of loss of consumer surplus or of rent and the triangle that shows excess burden or deadweight loss is subject to measurement Following is the alternative diagramatic illustration of the excess burden under a general equilibrium situation. The following diagramatic illustration of the excess burden under a general equilibrium situation. The following diagram shows distortions in product choice arising from a relective product tax. The horizontal axis measures units of product X and vertical axis measures units of product Y. AB is the production possibility Curve. Impositoncommunity indifference curve on it. We find an optimal solution at point C where the indifference curve is tangent to the production possibility curve AB. At point C the marginal rate of substitution between X and Y as measured by the slope of indifference curve 1 C_2 is equal to the marginal rate of transformtion between X and Y as measured by the slope of AB curve. So, at point C

Slop of IC_2Slope of AB

MRSxy= MRTxy

Since both MRSxy and, MRTxy are equal to the price ratio between Y and X;

$$MRSxy = \frac{P_Y}{P_X} MRTxy$$

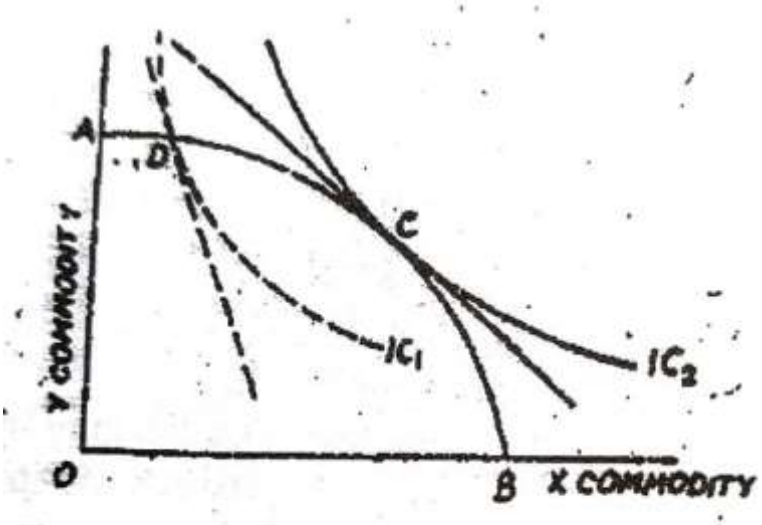

Fig. 7.3

Now, as an income tax, which is a direct tax, is imposed on the community, the individuals power to purchase both X and Y commodities would be proportionately reduced, but there would be no change in the price ratio between X and Y. The consumers and producers would continue to equate their marginal rate of substitution and marginal rate of transformation with the same price ratio; the post-tax equilibrium situation will not be inferior to the pre-tax equilibrium situation.

But if an indirect tax, say an excise duty is levied instead of income tax, in the post tax equilibrium situation the price paid by the consumers for the commodity on which tax is levied will be higher than the price received by the producers by selling that product. Let us presume that tax has been imposed on Y commodity. The excess money paid by the

consumers on Y commodity shall be appropriated by the government in the form of revenue. The tax in this case is a wedge between the price paid by the consumers for the product and the price received by the producer. Symbolically $pc_y=pp_y+t_y$ where pc_y stands for the price paid by consumers for Y,PP_y stands for price received by the producers for Y, and t_y stands for tax on Y. In the case of an indirect tax, the following condition would become true: $pc_y>pp_y$ Since pc_y would be greater than the pp_y, it follows that in equilibrium the slope of the indifference ruve would be greater than the slope of the transformation curve. This condition is met at any point left to point C. The above given diagram shows that such a situation arises at point D. At point D, the allocation of resources is, however, low to the one represented by point C since at point D the Marginal rate of substitution is not equal ($MRS_{xy} \neq MRT_{xy}$) to the marginal rate of transformation. And also, the community's satisfaction is represented by a lower indifference curve $1C_1$.

From the above explanation we may infer that a direct tax is neutral as between the items. on which consumers spend their income since it keeps the price ratio of the items unaltered, and hence does not distort the consumers preference pattern. An indirect tax, on the other hand, is not neutral since it raises the price of the good taxed in related to those not tax or lightly taxed. This way, it distorts the preference pattern of the consumers by inducing them to substitute non- taxed goods for the taxed goods. This distortion of the preference pattern imposes excess burden on the consumers.

Let us not considered that effect on the choice between consumption and savings. To consider this, we analyse the following diagram in which horizontal axis shows future consumption C_f and vertical axis measures present consumption C_p. OB equals present consumption available if all income is consumed, and OA respresents future consumption available if all income is saved. Thus OA equals (1 +i)OB where *i* is the rate ofinterest. BA thus represents all possible combinations of present and future consumption available to the individual, given the present income. Pre-tax equilibrium position is shown by point E.

In the case of a general consumption tax applicable alike to C_R and c_r and yielding a revenue of AA', is imposed, the price line BA shifts to B' A' position in such a way that B' A' is parallel to BA. New equilibrium level is at E''. Both C_p and C_r are reduced at the same rate, relative prices are unchanged. The MRS and MRT of present for future consumption remain equal and no excess burden results.

In the case of income tax, however, the ratio of future consumption of present consumption (C_f/C_p) is reduced since the net interest rate is reduced by the tax and less is gained by post-poning consumption. The price line rotates to a position BF and equilibrium position is attained at E' The excess burden result in this case. This shall abe equal to the loss of welfare in moving from $1C_2$ to $1C_3$. This is so because the tax destroys the equility between MRT of present into future consumption as seenby the producers (equal to $1+i_g$ is the gross rate of return to capital) find the MRS as seen by the consumers (equal to $1+i_n$, where in is the net after tax return).

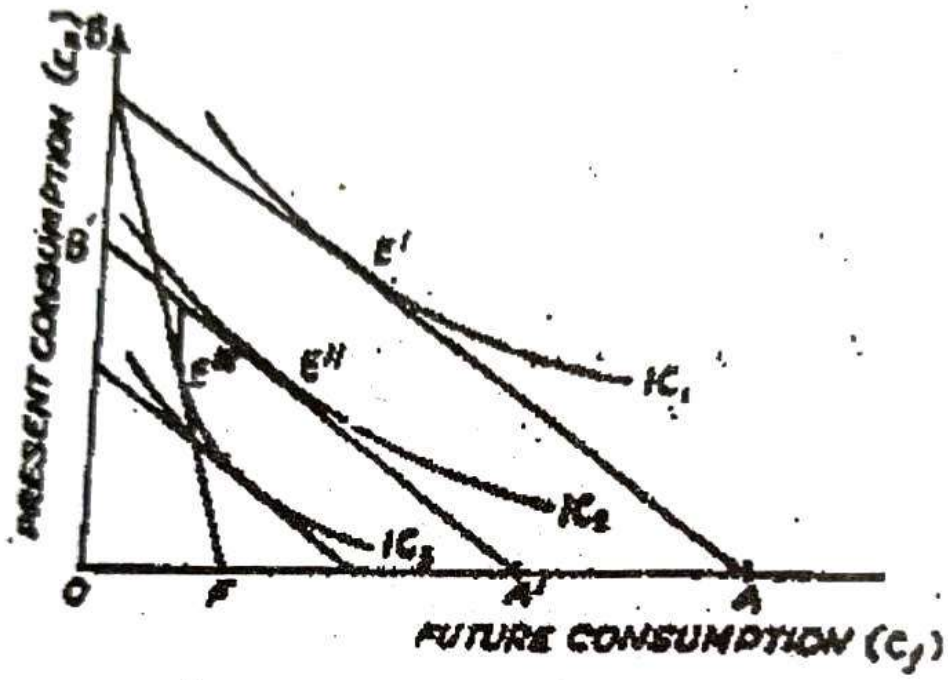

Fig. 7.4

Magnitude of Excess Burden

In recent years much efforts have been directed at significance measuring the quantitative of exess burdens. Suchmeasurements, as is obvious, are important for fiscal policy in order to compare the merits and demerits of alterntive taxes. Moreover, knowledge of excess burden is important in the evaluation of social cost of public programmes as it offers an additional dimension for consideration while assessing such a programme. So, only the cost-benefit analysis cannot be considered independent of the method of finance.

Earlier attempts of measurement based on a partial equilibrium approach have shown modest magnitudes of excess burden. But more recent work, involving general equilibrium approach, has shown excess burden to be much larger. Although the results are tentative and therefore, not conclusive, but these results are of much interest.

Let us start with individual income tax. The excess burden generated by personal income tax through interference with work-leisure choice is estimated at about 4 percent of revenue. The excess burden generated by directions of savings-consumption choice is estimated around 10 percent; and that resulting from preferential treatment of home ownership (investment distortions) is estimated in the interindustry allocation of capital, caused by the corporation and property taxes, is estimted at around 25 percent, while that of excise on liquor, tobacco, and gasoline is estimated at around 28 percent. The excess burden of tax system as a whole is assessed at about 30 percent of revenue.[1] In the case of the U.S.A. economy where taxes equal to 33 percent of G.N.P., the cost of excess burden is about 10

[1] Refer to Richard A. Musgrave and Peggy B. Musgrave, Public Finance in Theory and Practice Chapter 14.

percent. As Musgrave contend, we can, on the basis of this, draw some conclusions and also can refrain from arriving at some other conclusions. These are as follows:

(a) Given the existence of excess burden, the appropriate size of the public sector, as financed by revailing taxes, is less than it would be if financed by taxes with zero excess burden. It doesnot follow, however, that the existence of excess burden call not function without the services which the public sector provides, services which (set at their proper level) are worth their cost, even though excess burden is included therein.

(b) Since excess burden differs among taxes, only those taxes should be chosen, assuming other things to be equal, which minimize excess burden.

(c) But, we know that other things are not equal or constant. In particular, taxes differ in their contribution to the equity of the tax system. A head tax, thoughwithout excess burden, is unacceptable on equity considerations or the principle of justice in taxation. Tax equity, as other good things in life, is worth paying for. The design of a good tax structure, therefore, involves a trade off, aimed at buying equityat the least cost in excess burden.

d) Minimizing excess burden and (maintaining equity do not always conflict. Elimination of many tax differentials would serve both purposes.

LESSON-7

EFFECTS OF TAXATION

Dear Student,

According to classical economists, the State was to follow a neutral tax policy. The state, in order to perform its functions needed certain amount of revenue and that should be raised with no or minimum distortions in the economic parameters generated by the market forces. It implies that the fiscal action of the government should not disturb the resource allocation pattern of the economy and should therefore be neutral as between different sectors, or should bring about the minimum possible distortions therein. This traditional approach to economically efficient tax policy takes (or granted the efficient operation of unregulated economic markets on a broad scale. Given this belief, the basic canon of efficient taxation is neutrality. If tax-free markets are optimal, taxes should be set so as not to interfere with the operations of these markets.[1]

The opposing view is contrary to what has been said. They are much less optimistic about the efficiency of free markets. Seeing pervasive imperfections and enternalities, its adherents seek tax policies geared deliberately to minimize such imperfections and encourage desirbale non-market effects.

It is now well recognised that the market forces by themselves are not sufficient to create most desirable results in an economy. Free market forces or the freedom of market mechanism has been found inadequate in solving many problems such as trade cycles, inequalities of income and wealth, imbalanced growth etc. Actually, the belief that the market mechanism will be able to bring about an optimal allocation of resources is based upon certain implicit conditions. One such condition is that the market is perfectly competitive. But in general, there are all sorts of imperfections caused by irrational consumer behaviour, monopolistic practices, technical rigidities, imperfect knowledge of the market, etc. Today, therefore, motives of taxation have changed and the purpose of tax is not only to earn income for government. A tax according to modern view, is also imposed to affect the pattern of consumption, production and distribution in the economy.

The tax system affects the production and distribution of wealth in an economy. It is evident that payment of taxes reduce the purchasing power of the taxpayer and also reduce their consumption. This may result in the loss of incentive for work in order to earn more. Taxation at the same time has a distributive function to perform as well.

While analysing the effects of taxation, we shall confine ourselves to more of less aggregative level. First of all, we take up the effects of taxation on production and growth. In line with Dalton, these effects may be analysed with reference to

(a) capacity to work, save and invest and

(b) the will to work, save and invest

Capacity to work, save and invest:

When a tax is imposed on a consumer, the disposable income of the taxpayer is reduced. Capacity to work, as we know, depends upon the health and efficiency of the populace. This speaks for adequate and proper consumption standards as well as appropriate expenditure on education and training. As a result of tax payments, a consumer or the tax payer is compelled to purchase a smaller or

[1] Alam S, Blinder, Robert M. Solow and others, The Economics of Public finance, The Brookings Institution, Washington, D.C. 1974, pp. 179-180.

lighter basket of goods and services than before. The standard of living of the tax payer, therefore, falls unless he is otherwise compensated for through increase in his income by the amount of tax. If this argument holds, imposition of tax shall reduce the capacity to work of a taxpayer. The effect onthe capacity to work may assume a cumulative form in the sense that tax shall reduce the purchasing power resulting in lowering of the standard of living which in turn would result in low efficiency. Lower efficiency would lead to lower income which would further lead to low efficiency.

It should not be assumed that all taxes are harmful from the point of view of the capacity to work. Taxes on luxuries, certain goods of mass consumption which are harmful for the general health of the public, etc. could be of great benefit to the national health and efficiency.

As said earlier, taxation reducesdisposable income available to the tax-payers. This shall have depressing effect on the capacity to save. If a tax is imposed, smaller amount of savings will be available to the investors for investment This if; true as capacity to invest is related to the capacity or ability to save although these two are not identical. For a micro unit, saving may not be essential for investment. It might borrow from banks and other financial insitution to finance its investment activities, but at macro level, such as a management or procedure is not possible for the economy as a whole. The financial institutions are basically chanelling savings of the community and making it available to the investing community. The capacity to save shall to a great extent determine the capacity to invest. The taxes like the one on the earnings from investment, on savings themselves on retained profits of the firms, etc., shall greately influence the level and pattern of investment.

Will to Work, Save and Invest

The effects of taxation on people's will to work, save and invest is determined partly by monetary burden of the tax and partly by the psychological state of the taxpayer. The will to work may be interpreted as the will to work for higher income through the supply of effort. This also may be termed as the concept of work leisure choice. The modem theory of work- leisure choice is based on the opposing substitution and income effects of a given wagerate or tax rate change. When the tax rate is increased, the reward for a additional unit of labour and the price of an additional unit of leisure are both lowered, and on this account the worker will tend to substitute leisure for work. At the same time, a higher tax rate means a lower income from a given amount of work, and poorer people would normally wise to have fewer hours of leisure, thus increasing work hours. An increase in tax rate, therefore decreases the work hours because of substitution effect in favour of leisure and at the same time raises work hours as a result of income effect in its favour.[1] But to find out the interrelationship among work leisure choices are very complex. Take the case of a family. Decision of a house-wife to enter the labour force and the number of hours of work she prefers tend to be a function of both her husband's wage rate and her desire for leisure, the husbands labour force choices in turn are related to his wife's earning power and her career aspirations. Full estimation of the effects of taxation on family labour supplies should take these cross effects into account, as well as those of the behaviour of teen-age children.

Many empirical studies have been conducted to ascertain the effect of, taxation on work efforts.[2] A Survey by Robin Barlow and others in 1964, Daniel M. Holland in 1965-66 (both in the U.S.A), Donald B. Fields in 1969 (in England) are some of the more important studies conducted to estimate the overall incidence of tax incentives and disincentives. In the 1964 study (Barlow-Brazer-Morgan) of

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1 Alam S. Blinder, Robert M. Solow and others. The Economics of Public Finance, Washington. D.C... The Brookings Institutions, 1974, 9.180-181.

2 For detalied description, see The Economics of Public Finance, ibid, Chapter on The incidence and Economic Effects of taxation of 110237.

high-income individuals, 12 percent reported that they worked less hard because of taxes. The 1969 study (B. Fields) reported 19 percent of those interviewedshowing definite tax disincentives to work.

Although these studies cannot be termed as conclusive, but at least in a qualitative sense,the effects of taxation on the composition of work effort are well established. While it appears that career choices, are only marginally affected by expected life-time after-tax earnings differentials, differences in the tax treatment of different kinds of income may lead to occupational shifts among adult workers.

Coming to the will to save and invest, it may be said that the effect of taxation on the allocation of a household's income becomes important How much is budgeted for consumption, how much for savings and what kind of financial assets are chosen for investment portfolio all these decisions are affected to some degree by government tax policy.

When we look at the forms of investment, broadly speeking, some forms of savings would be in the nature of investments bringing incomes while others will be in the nature of just hoarding without bringing any income. Now that if general taxation reduces one's earnings from each kind of investment substantially, then there will be a tendency for savings to go invested or get invested or channelised into those lines from which little or no income may be expected. For example, people might put their savings in the purchase of gold, landed property, and so on. Savings might even be hoarded in the form of money itself. Similarly, a high rate of taxation on business or corporate profits may induce the business community to increase its business expenditure and reduce the profits. This may be done, for example, by paying for salaries to their executives and by incurring similar avoidableexpenditure.

Earnings from investments are usually taxed unevenly. This kind of differential taxation brings about a number of influences on different types of investments. Within various types of business investments, differential tax measures will have a bearing on the choice of investment Industries which are allowed a higher rate of depreciation allowance or are given tax holidays shall attract more investments as they shall find their net profitability higher. Government canuse such devices to promote priority industries and can promote balanced regional development as well.

When all other conditions are favourable or can be rendered so by policy actions, tax incentives do appear to be stimulating business investments and vice-versa. But the empirical studies do not seem to have settled the question as to how great the response is likely to be in the long run and how quickly it will develop in the short run. However, governments should not refrain from the use of tax incentives and disincentives on that account. It is only the amount and not the direction of the effect that is in doubt, and the use of such policy instruments may well be preferable to no action at all.

Taxation and Economic Growth

First step in the estimation of tax effects, on economic growth shall be the determination of the effects of tax policies on business investment. Before coming to any definite conclusions, we may have to answer many difficult questions like how productive is new capital investment at the margin, how likely it is to produce substainble rather than merely temporary increase in the rate of economic growth? Also, to be considered is to what extent will the increases in growth rates be accompanied by environmental costs?

As for the marginal productivity of Investment, the crucial unresolved issue is the extent to which advances in technical knowledge must be embodied in new capital assets before they exert on influence on the rate of economic growth. Robert M. Solow estimated that all percentage point increase in the aggregate growth could be achieved by an increase of only 2.5 percentage points in the fraction of national income saved and invested? But Harberger says that we need as much as 10 percentage point increase in the saving-investment ratio in order to effect 1 percentage point increase in the growth rate.

The above opinions/conclusions not with standing, investment tax incentives would be an important component of any set of national taxpolicies designed to stimulate economic growth. An increase in the level of taxation relative to the level of expenditure, which would decrease the deficit or show surplus, would release resources from existing uses; it would be the task of monetary policy to see that those resources were redirected mainly into growth stimulating areas of economic activity. How successfully they might do this is a function in part of the ability of different tax plans to discourage household expenditures from going into relatively unproductive types of consumption rather than into savings, personal and business investment spending, and consumption that contributes to human, capital formation. It can be possible, through tax incentives and disincentives, to protect productive types of consumption and create conditions for the flow of funds into growth stimulating Activities.

The growth stimulating tax policies that after neither the total amount nor the vertical. distribution of tax revenues focus attention on the broad question on the choice of tax base. Among the main alternatives income, consumption, and wealth-the choice is not very important as far as economic growth is concerned. Apart from their differential distributional effects, income and consumption taxes are regarded as having roughly equivalent effects of incentives to work, and these conclusions have empirically been verified the decision of trot base may rest on considerations other than the potential differential effects on economic growth as the evidence with regard to above stated three tax-bases affecting household savings and investment decisions are not conclusive.[1]

Growth stimulating tax changes that alter the vertical distribution of income and wealth are the most important, and also most controversial.

Investment tax incenties tend to increase inequalities in the distribution of income as business and corporate income is much more unequally distributed. A significant reduction in work disincentives would require lower marginal income tax at the highest income levels in order to stimulate personal saying potentialities. It appears that tax rates under a growth stimulating policy would be negative at the lowest income levels, becoming positive and increasing steadily as family income rose, but moderating or flattening out as disincentive-prove levels were reached.

TRADE-OFF BETWEEN EQUITY AND EFFICIENCY

The normative theory of taxation and the concept of good tax structure developed, as we saw in the earlier lesson along two lines. One is the ability to pay or equal sacrifice approach, the others that of benefit taxation. The later writings however, laid emphasis for efficiency considerations. Proper interpretation of equal treatment of equals call for the imposition of equal burdens, measured not simply by amount of tax paid but by welfare of efficiency losses incurred. This means inclusion of losses of consumer surplus or excess burden suffered. It is only reasonable that the requirements of equity taxation should be supplemented by the further requirement, that excess burden be minimised. Just as efficiency considerations do not suffice without allowance for equity considerations cannot be dealt with without allowance for efficiency aspects. So, the question is whether both goals can be met at the same time.

Had the utility functions been the same for all individuals, the same tax formula would have imposed equal excess burden on all the tax- payers. People in equal positions would incur the same burden when exposed to the same tax structure. But since preferences differ, a uniform tax formula, sort of one which covers the entire vector of options, will not minimise burdens and also equalise them among individuals. Different formulae would have to be used with each persons formulae tailored to his particularpreference set. This, however, shall not bean operational proposition. The theory to be

[1] Robert M. Solow, "Technical Progress Capital Formation and Economic Growth", American Economic Association, 1962, quoted in Alam S. Blinder, Robert M. Solow and others, The Economics of Public Finance, Op. cit, p. 232.

relevant to tax policy, must accept the constraints that the same tax base or formula is applied to an individuals. But closer consideration shows that there is no single formula that will be wholly satisfactory in both aspects. A tax formula designed to avoid inefficiency will discriminate against products with low elasticities of substitution. Where as one designed to avoid inequalities will discriminate against products whose share in consumers budget shows a low degree of dispersion. Therefore, unfortunately, the two goals, efficiency and equity are likely to conflict. Very efficient taxes are often exceedingly inequitable by some standards, and very equitable taxes, from some points of view, may lead to large losses in efficiency or deadweight loss for the economy.

Consider the economic effects of a regressive tax which is levied on the non- economic considerations. The regressive tax is neutral in respect to resource allocation. But, if ability of pay is believed to increase with income, such a tax is extremely inequitable from the point of view of some individuals. Consider the effects on the distribution of income if the total cost of government expenditure were financed by dividing total expenditures by total number of households and charging each household the same tax amount, Rich households shall be paying same as poor households. The effects would be to redistribute, after tax income away from the poor to the rich. This kind of proposition would be unacceptable on equity considerations.

On the other hand, the progressive income tax is considered to be highly equitable. The rate of taxation increases more than proportionately with income, and it is believed that ability to pay varies in a similar manner. However, the high marginal tax rates for higher income households tend to distort choices between work and leisure, and the many tax preference designed to promote equity result in considerable losses in efficiency for the economy as a whole.

This being the case, a trade-off between equity and efficiency becomes necessary, and to carry it out two tasks of measurement arise. First, it is no longer sufficient to rank taxes by efficiency cost. The absolute cost of various tax formulae must be determined. Secondly, the quality of various, formulae in terms of horizontal equity must be measured and, evaluated so that it can be balanced against excess burden incurred or avoided.

The mix of efficiency and equity in the tax structure is a political decision determined through political process. A completely neutral tax system may not be desirable as it may be inequitable. At the same time a completely equitable tax structure also may not be desirable as it may be impossible to devise such a structure without distorting economic choices. Some compromise is necessary to achieve the best mix of efficiency and equity. Solving for good tax structure is to strike this balance but even then, only a second-best solution can be found.

SUGGESTED READINGS

1. Richard A. Musgrave and Peggy B. Musgrave, Public Finance in Theory and Practice.(4th ed.) Chapter 14.
2. Richard A. Musgrave, Public Finance in a Democratic Society Vol. I, Chap. 19.
3. David N. Hyman, The Economics of Governmental Activity, Chapter 7.

LESSON-8

TAXABLE CAPACITY

Dear Student,

In modern times the obligations of a welfare state and of economic planning have led to the growth of public expenditure. As is well known that tax is one of the main sources of public revenue, high taxation will lead to increase in the revenue of the state which in turn finances the increasing public expenditure. Taxation, however, reduces the purchasing power of the people and adversely affects their ability and willingness to work, save and invest. The public authority, while raising tax rates or imposing new taxes, have to consider the capacity of the people as a whole to pay taxes. They have to find out whether people have the capacity to bear the additional burden of taxes. But the basic question that arises is to find out what this capacity means. What do we actually mean by saying that the public is or is not capable of bearing additional burden of taxes? The fiscal authorities or the government think in terms of the taxable capacity of the people while raising funds through taxation, although they may not always be clear in their analysis about the precise meaning of the term 'taxable capacity. But they know for certain that there is a limit to the taxable capacity which needs to a kept in sight while determining or altering the tax structure. So, the significance of the term 'taxable capacity' lies in the fact that it fixes the limit beyond which the government cannot tax the people. Going beyond this limit would not be in the interest of the nation. It is this limit of the people of different classes and sections, taken as a whole, to bear the burden of taxation beyond which productive efforts and efficiency inproduction begins to suffer.

Economists widely differ in their conception of the concept of taxable capacity. According to Josiah Stamp, "Taxable capacity is the total production minus the amount required to maintain the population at subsistence level". In this definition total production refers to thetotal volume of income generated and available to the people. As the whole of it cannot be taken away by the government by way of taxation and some proportion of this income is to be left with the people to satisfy their wants. As Joseph Stamp further states that "taxable capacity" is the minimum amount which the citizens can pay to the public authority without having a really unhappy and down-trodden existence and without dislocating the economic organisation too much." This definition is considered to be incomplete and vague because the nations like 'really unhappy', 'down-trodden existence' and 'dislocating the economic organisation' are not very clear and precise.[1]

According to Findlay Shirras[2], taxable capacity is the 'limit' to sqeezability. It is the total surplus of production over the minimum consumption required to produce that level of production, the standard of living remaining unchanged. He establishes a minimum level of consumption which would maintain the present standard of living and also ensure that the production on usual scale is not adversely affected. Whatever is produced over and above this minimum is the taxable capacity. But this definition ignores many developmental and other aspects of the economy. Population continues to rise, people want to raise their standards of living and production of new goods is imperative for the growing needs of the people. This perception leaves the economy stagnating and unable to promote economic growth. So, the tax structure based on such a concept of 'taxable capacity' would not be a good and tolerable tax system.

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1 Sir Joseph Stan, p. Wealth and Taxable Capacity, 1921. p.134.

2 Findlay Shirras, The Science of Public Finance, 1925.

The taxable capacity could beunderstood, asDalton[1]makes out bydistingushing two possible senses in which the phrase may be used: (a) the absolute taxable capacity of a single community, and (b) the relative taxable capacity of two or more communities. "Thus we may ask (1) how much can a particular community be taxed, without producing various unpleasant effects? When these unpleasant effects result from the operation of the tax system, it is possible to say that "taxable capacity has been exceeded" in an absolute sense. Or we may ask (2) in what proportions should two or more communities contribute by taxation, to a common expenditure? If one of these communities is contributing more than its due proportion, it is possible to say that its "taxable capacity has been exceeded" in a relative sense".[2]

To elaborate further, absolute taxable capacity indicates the amount of money or the proportion of national income that can be taken away by the government from people in the form of taxes without producing unfavourable effects. The explanations given by Joseph Stamp and Findlay Shirras refer to absolute taxable capacity. As stated earlier Sir Joseph Stamp defined absolute taxable capacity as the total production minus the amount required to maintain the population at the subsistence level. This explanation has a few drawbacks. First, it is not possible to ascertain the subsistence level of a community. Differences are bound to crop up when an attempt is made to ascertain taxable capacity without considering the public expenditure, it becomes quite impossible to fix any definite sum, or any definite proportion of a community's income, which could be said to represent the limits of its taxable capacity at any particular time.

Although efforts have been made to explain absolute taxable capacity of a country, its determination becomes almost impossible. As according to Hugh Dalton, all the definitions of absolute taxable capacity suffer from ambiguity and vagueness. To him taxable capacity is a common phrase, but a dim and confusedconception.

Further, the absolute capacity of a community is assumed as a constant entity where as it is not so. In the long run, it is bound to change through growth in savings and investment, economic development, changes in production pattern, and host of other factors.

Relative taxable capacity, on the other hand, may be given an intelligible meaning. It is more definite concrete and understandable concept as compared to absolute taxable capacity. In the relative sense, the reference is to the proportion in which two or more nations or groups of persons or communities or states in a federation contribute towards the common expenditure of the public authority through Taxation. In other words, the relative taxable capacity is the capacity of a community to contribute to some common expenditure in relation to the capacities of other communities. It is possible to determine in advance the proportion in which two or more communities should contribute through taxes in accordance with their respective 'ability to pay. The richer communities shall be called upon to bear a greater share as compared to the poorer communities. Now if one community is contributing more than its due share, the taxable capacity is said to have been exceeded.

As Dalton states (p. 171 of *Principles of Public Finance*), "It is important, however, to recognize that there is no logical connection between relative and absolute taxable capacity. A community may be contributing, in excess of its relative capacity, towards some common expenditure with other communities. But it does not follow that its absolute taxable capacity, according to any of the definitions is being exceeded Similarly, its absolute taxable capacity, according to some definition or other, may be exceeded, but is does not follow that its relative taxable capacity is being exceeded in any if its common expenditures with other communities. My general conclusion is that relative taxable capacity is a reality, which can, however, beequally well expressed in other terms, while absolute taxable capacity

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1 Hugh Dalton, Principles of Public Finance, Tenth, Revised Edition, 1939, Note to Chapter XII, pp, 163-171.

2 Hugh Dalton. Principles of Public Finance, ibid, p. 164.

is a myth, which is, apt to engender grave errors. In the interest of clear thinking, it would be well that the phrase "taxable capacity" should be banished from all serious discussions of public finance."

Several economists have attempted to measure taxable capacity of a country at an aggregative level. Colin Clark, for example, states that maximum taxable capacity of most communities of the world would be 25 percent of their national income. Any level of taxation exceeding this upper limit of 25 percent of their national income shall lead to unpleasant consequences. This is stated to affect adversely the willingness and capacity to work, save and invest of the people. At the same time higher level of taxation than this would lead to inflationary conditions through increases in wages and prices.

There are many critics to what Clark thinks is the taxable capacity of a nation. This upper limit, they say, may be applicable in case- of an advanced country like the United Kingdom. Therefore, it can not be taken as a universal criterion as it may not be applicable to many less developed economies. A tax structure which takes away 25 percent of country's national income in taxation may not have an adverse effect on the economy of a developed economy while the same cannot be true of a developing economy. Secondly, the taxable capacity of a countly cannot be considered independent of the expenditure policy. There is a case for weighing, them against each other. So taking about absolute taxable capacity becomes meaningless. On the other hand, Nicholas Kaldor is in favour of an "expenditure tax. According to him a heavy tax on income may produce an adverse effect on production and capital formation in the economy, while a tax on expenditure can reduce wasteful expenditure without at the same time curtailing production. Thus, the taxable capacity is also tax-specificand depends upon different types of tax systems.

ELASTICITY AND BUOYANCY OF TAXATION

The most ancient purpose of taxation has been revenue raising for the purpose of meeting the cost of government and governance. Purpose of maintaining the government still continues to be the most important objective of many tax design in all the countries. The traditional approach to formulating and designing a tax structure for raising revenue was based on the canon of adequacy. This canon requires that any taxation which the government intends to levy should fetch adequate revenue for meeting the requirements of the government Modern approach to tax design and tax reform, however, is more sophisticated and operationally more useful. This approach to achieve the revenue objective of taxation has emerged as a by product of the Post-Keynesian theory of automatic stability or built-in-flexibility. Traditionally, the search for automatic economic stabilizers has always been associated with the desire for as little government intervention as possible. But the modem theory of builtin-flexibility traditionally, the search for automatic economic stabilizers has been the outcome of the realisation that fiscal tools are not flexible in the short run because the legislature's consent required to change them according to the stabilization requirements of the economic activity. Post-Keynesian economists have tried to, formulate fiscal policy tools in such a way as to make them automatic stabilizers. In simple words it may be stated as a mechanism to affect annual rate of growth of tax revenue without changing tax rate or tax-base which we know as elasticity of tax revenue.

All taxes, except a lump-sum tax, exhibit of functional relationship between the amount of revenues collected under the tax and the level of income. This relationship is direct under an income tax whose base automatically changes as income changes and is indirect under sales and wealth taxes. Two important concepts are relevant to this functional relationship between tax revenues and income. One concept is that ofmarginal propensity to tax (MPT) also known as built-in-flexibility. This is especially applicable to fiscal rationality as applied in the area of macroeconomic performance. The other concept is that of income elasticity of taxation (Y) which is particularly applicable to the long run revenue productivity of a tax or tax system. This also has macroeconomic applications. These two concepts resulted in the development of two methods of measuring the built-in flexibility of taxation known by the names of elasticity method and marginal ratio or income elasticity method.

First economist to use the elasticity method was R.E Bretherton (Econometrica 1937). He was concerned with the elasticity of British tax structure to control trade cycles automatically. He measured elasticity, which he called sensitivity of the British tax structure with given tax rate and coverage of tax base by using the following formula).

Percentage change in yield

Percentage change in national socialincome

This may be stated in $\left\{\frac{\Delta T}{\Delta Y} \times \frac{T}{Y}\right\}$ form where T is tax yield, Y is national income and Δ is change in respective variables. The purpose to use this formula was to know whether a particular tax or tax structure can stop depression or bring recovery or stop the boom; without discretionery changes.

According to Bretherton, if the elasticity of a tax structure is equal to unity, the tax structure will be destabilizing and if it is greater than unity, it is stabilizing. He maintains that a proportional income tax will have an elasticity equal to unity, a regressive income tax an elasticity of little less than unity and a progressive income tax an elasticity greater than unity. Taxes on commodities will be more elastic if they are ad valorem and less elastic if they arespecific.

Later in 1940, Edelberg (Journal of the Royal Statistical Society, 1940), made another attempt to measure the cyclical establicity ofsome British taxes. He estimated the elasticity of about five taxes in relation to time and employment. First of all, he established a functional relationship between tax yield (T), time (X) and employment (N), in the following way:

$T = KX^bN^c$,

Where K, b and e are constants. Then he found out simple and multiple correlation values between these variables and finally he worked out elasticity of (T) in relation to (X) and (N) as:

$$C = \frac{\Delta T}{\Delta N} \cdot \frac{N}{T}$$

Where c is elasticity.

Edelberg also worked out elasticity of (T) in relation to tax rates and he estimated elasticity of certain taxes in relation to their respective correlative tax bases like consumption, price level and so on.

Richard A. Musgrave and Miller (American Economic Review, March 1948), used the other method called marginal ratio method to estimate the built-instability of taxation. Their approach begins with elasticity formula which they called income elasticity of tax. In their formulation public expenditure is held constant. Then on the basis of elasticity of tax yield in relation to income, they explained the compensatory effectiveness of built-in-flaxibility as:

$$A = 1 - \frac{\Delta Y}{\Delta Ya},$$

Where Δ Y is change in income in a particular system with a positive value of built-in- flaxibility and Δ Ya is change in income in the system where income elasticity of taxation isequal to zero. They defined $\frac{\Delta Y}{\Delta Ya}$ as the ratio ofthe decline or increase in income in the particular tax system under analysis to the decline or increase in income if the system had no built-in stability, and A, which is 1 minus this ratio, is the fraction of the change in income which is prevention because of the existence of 'built-in-flexibility, If A = 0, there is no built in flexibility, if A = 1 built-in flaxibilityis perfect.

Given the marginal propensity to consume, A varies directly with T/Y, the another measure income elasticity of tax (Y_t) as:

$$Y_t = \frac{\Delta T}{T} / \frac{\Delta Y}{Y}$$

$$Y_t = \frac{\Delta T}{\Delta Y} \cdot \frac{Y}{T}$$

The concept of income elasticity of taxation is closely associated with the long run fiscal well-being of governments, since changing income brings with it verying degrees of changing governmental expenditure responsibilities. The critical question is whether revenue yield will grow in a manner commensurate with these growing expenditure obligations. Figure 8.1 demonstrates three categories of income elasticity of taxation:

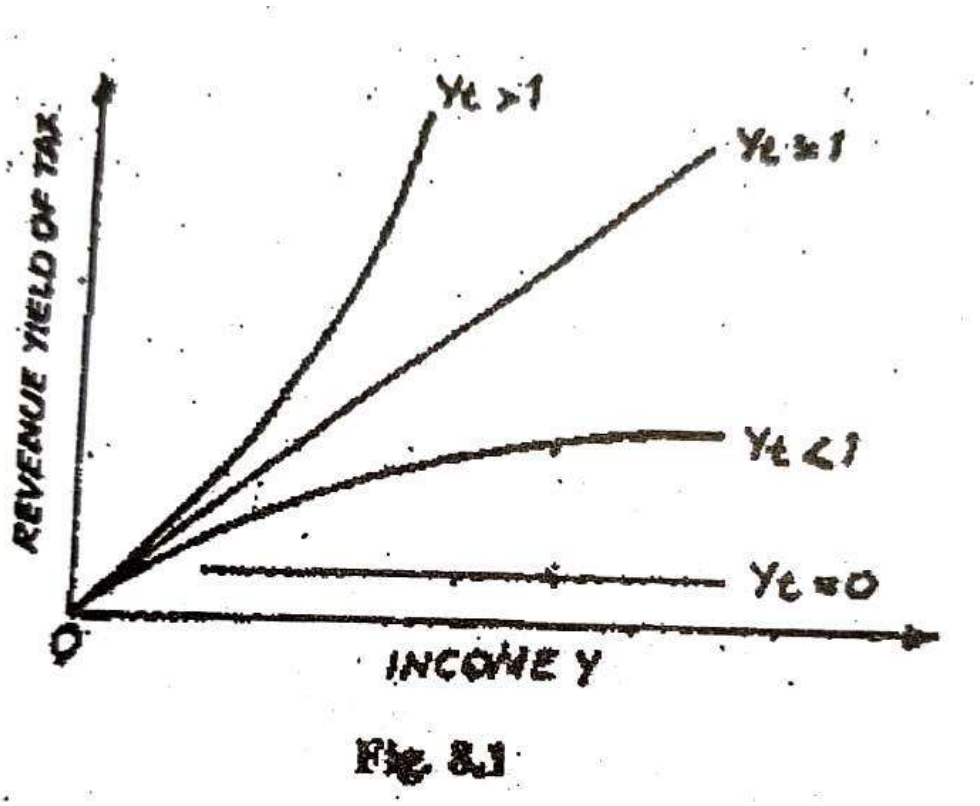

Fig. 8.1

(a) If the change in revenue yield (T) from a tax or tax system occurs at a greater rate than, changes in income (Y), the income elasticity of the tax or tax system is said to be elastic (Y_1>1). For example a 1 percent change in income might induce more than one percent change in revenue yield.

(b) If the change in revenue yield occurs at the same rate as change in income, the income elasticity of tax is said to be unitary (Y_t= 1). In this case some change in income leads to same percentage change in the revenue yield.

(c) If the change in revenue yield occurs at a lesser rate than change in income, the income elasticity of tax or tax system is said to be inelastic (Y_t<1). For example, a 1 percent change in income might induce less than 1 percent change in revenue yield.

A close relationship exists between the statutory structure of a particular tax system and its resulting income elasticity. Generally, a statutory progressive tax structure provides near unitary results (with occasional exception), and a statutory regressive tax yields income inelastic results. The explanation of this behaviour is that as the tax base increases, taxpayers move into higher tax rate brackets under a statutory progressive tax structure, thus yielding increasingly greater revenue to government. The opposite occurs under a statutory regressive tax, and a proportional tax yields intermediate results.

As observed above, under an income tax the tax base directly increases as income increases, since income itself is the independent variable in the income elasticity formula. The association is indirect with wealth taxes, such as property and death taxes and with transactions taxes such as the general sales tax. Even though increasing short-run income flows do lead to a greater long-run accumulation of wealth or assets, there is admittedly a time lag present which is absent with the income tax. Also growing income induces greater expenditures or transactions, but with some delay as well as with a saving leakage from income. A lump-sum tax would not yield a revenue response to increasing income, since it does not provide a significant economic linkage, either direct or indirect between the tax base and income. In other words, the income elasticity of a lump-sum tax would tend to be zero (Y_1= 0).

The built-in-elasticity of tax structure is considered as an important characteristic because it enables the government of expand the expenditure without frequent changes in tax rates, which are politically impopular in normaltimes. This characteristic also simplifies tax administration as otherwise frequent changes in tax rates etc. will require additional efforts to implement them. This becomes all the more complicated in developing countries having relatively inefficient and unresponsive administrative systems.

However, it may not be possible to make each and every tax in a tax structure equally elastic in yield. Therefore, it is necessary to make the tax structure as a whole elastic. For this purpose, we need to estimate the built-in- elasticity of the entire tax-structure. There are two methods of estimating the overall elasticity of the entire tax structure; (a) simple average method and (b) weighted average method. The simple average elasticity of tax structure is estimated by using the following formula:

$$\text{ET} = \frac{\Delta T}{\Delta GNP} \times \frac{T}{GNP}$$

Where ET is the elasticity of the tax structure and is the adjusted sum of the yield from different taxes constituting the tax structure. Here change in GNP has been used instead of the sum of changes in the respective tax bases because of the difficulty in adding up diverse tax bases. Also it is more appropriate to use GNP changes when we are estimating the overall elasticity of the entire tax structure as the total revenue is ultimately related to GNP. In this connection a note of caution may be in order against taking simple average of the individual elasticity co-efficients of different taxes, because it, does not capture the true elasticity of the tax structure as a whole.

Under the weighted average method, the overall elasticity of tax yield is derived by weighting the elasticity by the relative share of the yield from each tax in the total yield from the tax structure as a whole. This is obtained with the help of following formula:

$$\text{ET} = \left(\frac{t_i}{T}\right)\left(\frac{\Delta T_i}{\Delta GNP} \times \frac{T_i}{GNP}\right)$$

$$ET=\left(\frac{t_i}{T}\right)\left(\frac{\Delta t_i}{\Delta B_i}\times\frac{t_i}{B_i}\right)\left(\frac{\Delta B}{\Delta GNP}\times\frac{B_i}{GNP}\right)$$

Where t_i is the adjusted yield from ith tax, B, is the tax base of ith tax.

The choice between these two methods depends upon the availability of data relating to the individual tax base and the need for investigations into each tax.

Buoyancy of taxation:

Estimation of built-in elasticity oftaxation is a difficult process. A major problem encountered in the estimation of built-in- elasticity is that of separating the automatic yield due to changes in GNP alone from the gross yield resulting from, the changes in, tax rates, exemption, administrative efficiency and introduction of new taxes in addition to changes in GNP. In view of such problems and difficult process, sometimes a situation may arise where it is difficult to estimate the built-in-elasticity of taxation proper. Therefore, an alternative method of estimating the overall tax elasticity has been widely used. This method is known as buoyancy of taxation. Buoyancy of taxation is the elasticity of taxation to changes in GNP and other discretionary changes in rates, exemption, etc. This method gives the responsiveness of tax yield not only to changes in GNP but also to discretionary tax circumstances when it is not possible to estimate the true built-in-elasticity of taxation. In this method additional yield due to discretionary tax changes are not eliminated from the gross yield. Simply the responsiveness of unadjusted total gross tax yield to changes in GNP is found out. The buoyancy formula can be stated as follows:

$$ET = \frac{\Delta T}{T}\times\frac{\Delta GNP}{GNP}$$

However, in the case of certain taxes there is no relationship what-so-ever between the tax yield and the GNP. In such cases, the buoyancy of tax yield with respect to time may be estimated by adopting following formula

$ET = \frac{\Delta T}{T} / \Delta P$ AT/AP where P denotes time,

In recent years, buoyancy method has been used in estimating the tax potential of different taxes and of tax structure as a whole. This is so because tax buoyancy ultimately indicates the potential tax yield from a tax or from a tax structure in response to given changes in GNP and given discretionary tax changes.

The buoyancy can be translated into tax rate buoyancy (Tr) as well. This can be expressed as

$$T_r = \frac{\Delta T}{T} / \frac{\Delta r}{r}$$

where r is tax rate. Similarly we can find out buoyancy of tax base (T_b) as well by the following method:

$Tb = \frac{\Delta T}{T} / \frac{\Delta B}{B}$ where B is the tax rate, B whereas tax rate buoyancy estimates the change in tax rate, given the tax base. The base buoyancy estimates the change in tax rate, given the tax base, whereas tax rate buoyancy estimates the change in tax yield due to change in tax rate, given the tax

base. Tax buoyancy is the product of tax rate buoyancy and tax base buoyancy. These methods are useful in identifying the sources of buoyancy or lack of buoyancy of individual taxes.

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LESSON-9

SOURCES OF PUBLIC DEBT, PUBLIC DEBT PRICE LEVELS, CLASSICAL THEORY OF PUBLIC DEBT

Dear Student,

In this lesson we will discuss the sources of public debt and the classical theory of public debt. Not *only this we will discuss there relationship between public debt and price levels, that is, how public debt is a weapon to fight inflation and deflation. How public debt can be used to bring about economic stability and full employment.*

Public debt is an important source of non- tax revenue of the Government. The public debt is (1) internal debt (ii) external debt. Internal debt is borrowing from sources within the country and external debt is borrowing from sources outside the country.

Sources Of Public Debt

There are two major sources of borrowing, internal and external sources. *Internally, the government may borrow funds from individuals, charitable trusts, financial institutions, commercial banks and other financial intermediaries and the central banks in the country. Externally the government may borrow from individuals, international financial institutions; and foreign governments*. Let us discuss the important sources of public borrowings in the following manner. It should be remembered that the exact effects of public borrowing depend to a great extent on the sources of the borrowed funds.

(1) INTERNAL SOURCES OF PUBLICDEBT

(a) Borrowing from Individuals

If an individual purchases governmentbonds, some adjustment in his consumptionpattern or in the use of his accumulated savingsmust occur. When government bonds are sold toindividuals, there will be very little direct effectin curtailing either consumption or businessinvestment. The government bonds will bebought largely from funds that would have beenused to buy other securities and perhaps in part from idle cash balances. This diversion from other securities may indirectly have some contradictory effects which will be considered after the review of the other sources of funds since the effect is common to all of them. The net benefit here is that although individually people possess a very small amount to be spent on any small project but the government may use the whole collective amount successfully inbuilding a big project.

(b) Borrowing from Non-Banking financial Institutions

Another source of government borrowing is borrowing from the non-banking financial institutions. When non-banking financial institutions such as insurance companies investment trusts, mutual saving banks, etc., buy government bonds, they reduce their idle cash balances by making investment in government bonds. However, these institutions prefer to invest their funds in government bonds on account of these bonds being perfectly free from credit risk and also due to their high negotiability and liquidity. The ratio of interest paid on government bonds is, however, relatively low. Consequently, in many cases financial institution prefer to invest in the high-risk high-return giving securities, particularly in the equity shares of companies under the management of known and experienced industrialists when the non- banking financial institutions purchase government bonds, they do so in order to reduce their cash holdings.

(c) Borrowing from Commercial Banks

As we already know, both the individualsand nonbanking financial institutions purchase government bonds out of their own cash funds. Commercial banks can do so by creating additional loans upto an amount determined by the credit multiplier which is determined by theirexcess cash reserves and the required reserves ratio. The credit creation is made possible by the fact that money loaned by a bank is typically added to the borrowers' account and is, in turn, paid to persons having accounts with other banks.

(d) Borrowing from Central Bank

The central bank of the country subscribes, and at times substantially, to government loans by supporting these loans in the money and capital markets. This action creates purchasing power in the same, manner as the commercial banks do. By purchasing government bonds, the central bank credits the account of the government. The latter pays to its creditors by drawing cheques on its account maintained with the central bank, those who have received cheques from the government deposit these cheques with their banks. As a consequence, these banks find themselves with large cash reserves which become the basis for additional loans and advances.

(e) External Sources of Public Debt.

Apart from borrowing from differentindividuals and institutional sources in the country, the government may also borrow from other countries. These borrowings can be used to finance expenditure or to buy the much-needed defenceequipments or to pay for the import of capital goods required for the various development projects etc. In recent years, the two important external sources of government borrowings are firstly, the international financial institutions like the International Monetary Fund, World Bank, International Development Association and International Finance Corporation. These financial institutions provide loans to member countries for short-term for overcoming the temporary balance of payments difficulties and for long-term for the development purposes. The second external source of borrowing is the government assistance from friendly nations which is generally received for development projects.

Public Debt and price Levels

A sound programme of public borrowingand repayment, popularly called public debt is a patent fiscal weapon to fight inflation and deflation and to bring about economic stability and full employment. The government borrowings may assume any of the following forms. It should also be clearly stated that borrowings are generally resorted to cover budget deficits.

(a) Borrowing from Non-Bank Public;

(b) Borrowing from the banking system;

(c) Drawing from treasury

(a) Borrowing from Non Bank Public:

If govt. borrows from the public through the sale of bonds money may flow either out of consumption or saving or private investment or hoarding. *If the bond selling device of the government induces people to curtail their consumption, the borrowings are likely to be noninflationary in nature.* Since, it reduces private consumption expenditure, and increases public expenditure which is generally made for productive purpose.

When the money for the purchase of bonds flow from already exiting savings. It may again be noninflationary. When the government is not borrowing, these funds would have been utilised for private investment simply to bring about a diversion of funds from one channel of spending to another

with the same quantitative effect of national income. It means that the debt operations of the government does not bring about any significant change in the total volume of expenditure or more specifically investment expenditure (both in private and public sectors).

If the government bonds are purchased by non bank individuals and institutions by drawing upon their hoarded money, there will be net addition to the circular flow of spending. Since, it brings about new money into circulation which was hither to inactive. Consequently. inflationary pressures are likely to be created. But funds from this source are not generally available, in any large, quantity. Hence inflationary pressure generated as a result ofdrawing upon hoarded money may not be of the significant magnitude. [Therefore, it can be concluded that borrowings from non-bank public whether come out of consumption, savings a private investment or hoarding is generally non-flationary and may be resorted to during inflation for productive purpose especially wages goods. and it may have undesirable effects during depression.]

(b) Borrowing from the Banking System:*The government may also borrow from the banking institutions. However, such borrowings are inflationary in nature. Therefore, borrowings from banking institutions can be highly effective in removing the conditions of depression. During depression banks have excessive cash reserves and the private business community or the investing community is not willing to borrow from banks, since they consider it unprofitable. When unused cash lying with banks is lent out government, it causes a net addition to the circular flow and tend to raise national income and employment. Thus borrowing from the banking institutions have desirable effects during depression, more particularly when the borrowed funds are utilised on public works programmes.*

But, the borrowing from the banking system is not possible in times of brisk business activity i.e. boom. The demand for funds is very high in times of inflation, since expectations for profits in business are high. The banks loan out to their maximum capacity. The banks have no excess cash reserves and find it difficult to lend to the government. They can do so only through reducing their loans same where else. This will amount to a fall in private investment. Thus, the increase in, government spending is off set by a reduction in private investment, there will be no net effect upon national income and employment Thus, it can safely be concluded that borrowings from banking institutions have desirable effect only during depression and may have undesirable and neutral effect in times of inflation.

(c) Drawing from Treasury:*Thegovernment may draw upon the cash balances held in the treasury for financing budgetary deficit Since, it amounts to dishoarding, it causes a net addition in the supply of money.*

*Since, it increases the supply of money or causes a net addition in the circular flow of money, it is likely to be inflationary in nature. Hence, this sort of borrowings are desirable during depression and may have undesirable effects during inflation.*But, generally there are small imbalances over and above what is required for normal day to day operations. Therefore, such borrowings do not have any significant effect.

Finally it can be concluded that, in a period of inflation, public debt has to be managed in such a way so as to reduce the money supply in the economy and to curtail credit expansion. New borrowing from banking institutions, drawing upon cash balances held in treasury and drawing upon hoarded money held by non bank individuals and institutions shall have to be altogether avoided. Rather the government will do well to retire this kind of debt through a budget surplus. During depression, on the other hand, taxes are reduced and public expenditure is increased through budget deficits, which are financed by borrowings from the public hoarded money, commercial, banks, or the central Bank of the country i.e. drawing upon, cash balances held in the treasury. Thus, borrowing of the idle funds will have no adverse effects on consumption and on investment during depression, it is very difficult to retire this kind of public debts.

Actually, it pays to accumulate debt of commercial banks and Central Bank and of hoarded money of individuals during depression and redeem it during a period of expansion. Alongwith this, the monetary authority (the Central Bank) must aim allow bank rate to keep the burden of debt low. Thus, public debt becomes an important tool of anti-cyclical phenomena. However, it should be clearly understood that the above analysis is true to developed countries like U.S.A. and U.K. not todeveloping countries like India.

THE CLASSICAL THEORY OF PUBLICDEBT

The fiscal measure of public borrowing for resource mobilisation is of recent origin and has much to do with collapse of the principle of laissez faire, the rise of modem welfare states and the imperatives of accelerated economic development of a considerable part of the world. With the exception of the small Italian Republics, the German Trading Cities in the Middle Ages, in the early modem period the general political and economic pre-requisits for the development of an effective system of public borrowing were almost wholly lacking upto the end of the eighteenth century. *Hume and Adam Smith condemned it and were of the view that it is a came of the nation's ruin. H.H Groves maintains, "Public borrowing is relatively modem development. It did not appear as a regular and important feature until the later part of the eighteenth century."* He further holds the view that on account of certain favourable conditions such as the appearance of money and credit economy, development of industry and trade, the security of creditors etc., public borrowing emerged as an important institution.

The Classical theory of Public Debtgenerally centres around:

(i) Nature of the analogy between public and private debts,

(ii) Burdens and benefits of Public debt and

(iii) Shiftability of the debt burdens (or benefits).

(i) Nature of the Analogy Between Public and Private Debts.

Both the types of debts are the result ofincurrence of deficits excess of expenditure over income. The classicals consider public debt as analogous to private one. About the analysis between the public and private debt C.F. Bastable wrote, *"in all essential points the analogy between the public and private debt does hold good and should never be lost sight of* The peculiar position of state economy and thegreat importance of public borrowing have both tended to obscure the fundamental truth that public credit is but one form of credit in general and is or ought to be, regulated by the same lending principles."

Let us critically evaluate the view of school of thought:

1. The classical economists think thatincurrence of public or private debt enhance the power of the borrowers over disposable income and diminishes that of the landers. Superficially looked at it, the classicals seems to be right. It is true that in case of private borrowers and lenders the above process holds good as they are independent entities. Whereas it does not seem to be true in case of public borrower and to the former which is within the State jurisdiction.

2. The classicals believe that the process of payment of interest charges and the amortization of private debt may bring about netreduction in debtor's income.

3. The classical economists feared that Government may go bankrupt, like a privateperson, owing to the excessive load of unproductive debt. An unbearable amount of unproductive private debt may plunge borrower into the state of insolvency, *while this*

cannot happen in the case of Government. Government can pay its debt by tax revenue or by fresh loan proceeds or by printing new money. It can also redeem it in one stroke by imposing a capital levy. Private debtor does not have these extraordinary means at his disposal. Prof. A. H. Hansen has viewed the whole issue very clearly, when he states, *"A public debt internally held is not like a private debt. It has none of the earmarks of a private debt. The public debt is a means to control the national income and is conjunction with the tax structure; to regulatethe distribution of income."*

(ii) Burden and Benefits of Public Debt.

With the exception of T.R. Malthus, the classical economists considered that every particle of government expenditure is wasteful and unproductive. In an economy where there is full employment and the supply of money isfixed, any amount that is transferred to the govt. will be at the cost of the private employment and private expenditure and as the funds so borrowed will be withdrawn from the productive uses and put into unproductive channels, *the public borrowing will necessarily inflict burden. Adam Smith observes that public borrowing does not create new capital thus new capital, however, which they in this manner either bought or borrowed of other people, must have existed in the country before and must have been employed as all capitals are engaged in maintaining productive labour.* But the views of Adam Smith are more liberal. He does not hold the view that the ultisation of capital by government does necessarily destory, the actual existing capital. Ricardo too holds the view that public borrowing is withdrawn from the productive capital of the nation. To him, it is not the interest that is to be paid is a burden upon the economy, as it is simply a transfer from one to the other, from the debtor to the creditor of the same generation but the principal of the debtor exists on more, "The Consumption which has followed the loan has annihilated a capital which will never yield any further revenue. The society is deprived not of the interest since that passes from one hand to the other, but of the revenue from a destroyedcapital."

Secondly, the classical economists argue that servicing of internal national debt by tax revenue will drive capital out of the country and even induce the individuals to migrate with their capital to other countries where they will be exempted from such burden and thus paralyse internal economic activity.

J.B Say, too is not free from the classical yoke. Having personal experience of the conditions of France he favoured the view of the classical economists. He vehemently rejects the argument that as a debt bond is a variable as set in the hands of the bondholders and so it imposes no burden on the economy by arguing that government bond is simply a parchment and not property and as such holding of debt bond is not like holding of real wealth." J.S. Mill goes a bitoff the classical path and regards public debt a burden not in all circumstances and sets the rate of interest as a test for it. To him, rise in the rate of interest is a positive proof that the government is competitor for capital with the ordinary carrying off not merely funds which would not, but funds which have found productive employment within the country. A borrowing from productive capital causing rise in interest rate is a positive burden. Being a supporter of the Wage fund Theory, he observes that public borrowing is acceptable only when it is provided out of additional savings because "if it is not met out of the additional saving it will be withdrawn from the Wage Fund and thus it will effect adversely the living condition and the efficiency of the workers."

The foregoing discussion makes it sufficiently clear that Adam Smith. Home, Say and Ricardo disapproved of public debt because they thought it interfered with the natural order which was conductive to the creation of the nation. Their contention which was coloured by their conception of the natural order led them to ignore the distination between creation of public debt as such and the effects of public expenditure. Malthus, a great dissenter in the whole classical belt had a different conception of economic reality. To him public borrowing not only augments production in the economy but also avoids glut in the market. He correctly argued that "the questions depended upon proportions and that it would

be the height of rashness to determine under all circumstances, that the sudden diminution of the national debt and the removal of taxation must necessarily tend to increase the national wealth and provide employment for the labouring classes."

The classical formulation of public debt found its best expression only in the last two decades of the 19th century in the works of H.C. Adams and C.F. Bastabb and P. Leroy. T*hey made a distinction between the creation of public debt per se and the effects of public expenditure. Adam held that "a loan calls for no immediate payment from the people... The lenders aresatisfied, since they have secured a good investment".* Making a distinction between loan and tax finance Bastable wrote, "A loan is voluntary and, supplied by willing givers; taxation is levied on the willing and unwilling alike to make things smooth for the present at the cost of the future is not the duty of the wise and far-seeing statesman." He felt that it was only partly true that loans are made out of capital and taxes are paid out of new income. Public debt affect income as well as capital and taxation affects capital as well as income. On distribution of the burden of the public debt he held that, "the equitable distribution of heavy taxation is not easily attained where very heavy imposts are laid on some classes and some persons are likely to suffer unduly."

We examined the views of the classical economists regarding the burden of the public debt and came to the conclusion that classical economists generally believed that public debt inflicts burden upon the economy. This is decidedly an extreme view based on the unproductive nature of the government expenditure and the analogy of the private and public debt. Government expenditure is not always unproductive and also the analogy is wrong, for in case of the private debt, borrow has to pay the interest and the principal to the under who is a different person where as in the case of the public debt the tax payers pay the interest and the principal to the bond-holders belong to the same community or state it imposes no burden on the state on the macro plane as in private debt does on the debtor in the mirco sense.

Let us now examine, the classical views about the shifting of the burden.

(iii) Shifting of the Debt Burdens.

The traditional arguement is that theburden of the public debt is shifted to the future generations which pay the interest and the principal. The traditional view maintains that if taxes are used to finance a project, people pay for the project now, no burden is transferred to the future generation but if funds are raised through borrowing the present generation get offthe cost and the burden is shifted. *J.S. Mill claims that the public borrowing imposes double burden. On one hand it imposes burden on the current labours because borrowing extracts capital from the private resources that would have been employed for paying off the wage bill. On the other hand the burden has been shifted forward to future generations because of the taxes required for the servicing of the debt. Bastable also tried to establish firmly that the burden of the public debt can be shifted on to the future generations.*

But hardly the traditional theory had taken its root that it was put to test. Due to the great depression of 1930's. In summary, the dominant views of the classicists on the public debt can be stated in the following set of propositions:

1. Government loan finance withdraws funds from productive private employment.
2. Deficits are less painful than current taxes. Unbalanced budget, therefore, expand governmental activity and invite irresponsible government action.
3. Government borrowing makes future financing more difficult by increasing the proportion of the budget which must go for fixed charges and by increasing the amount of taxes which must be paid to finance the transfer interest on the debt.

4. Loan finance is costly, public outlays financed in this way must be paid for twice-once is meeting the interest charges and once in amortising the debt.

5. Public debt leads to currency depreciation.

6. An all tax plan provides a guide for the transfer of resources fromprivate to the public sector.

The Classical Theory is criticised mainly on two grounds. Firstly, Every governmentexpenditure is not always unproductive, hence Public borrowing may not be always a burden upon the traditional view regarding the shiftability of the debt burden, is not correct. The real burden must be borne in the period in which public expenditure has been incurred throughgovernment borrowing programme because resources are withdrawn from private use and put into public projects only in this period.

The problem of the shifting of real burden of public debt would be discussed in detail in next chapter.

SUGGESTED READINGS

1. J. K. Mehta, Public Finance, 1965

2. R.A. Musgrave, Theory of Public Finance

LESSON-10

THE BURDEN OF PUBLIC DEBT AND DEBT MANAGEMENT

As discussed in the previous chapter, we have gradually shifted from the classical position of a very small public debt to a position of a relatively high and rising public debt which raises several issues, of which the most important is the question whether the growing public debt is a net economic burden. An attempt is made in this chapter to study the controversy about the burden of public debt on the economy and also whether the burden, if any, of the public debt can be shifted to future generation.

Before taking up, the complicated economic issue of the burden of the public debt, let us now differentiate between primary or real burden or financial burden and secondary burden or real burden of the debt. *The financial burden may be defined as the loss in income of the people that arises on account of taxation for meeting the servicing cost of the debt.* According to David Mc Wright, 'The financial burden of the national debt is to be measured by the effects of the interest charges and the taxes levied to meet them. The relation which the taxes for interest bear to the national money, income is the question of primary importance."

The secondary burden of the debt may emerge on account of the adverse effects of taxation upon the ability and willingness to work and on the capacity and willingness to same. These may be termed as real burden of the public debt.

The secondary burden of the debt may be better explained in terms of Pigou effects of Asset effect and Kaldor effect. As far as the former goes, due to the purchase of government securities, the financial asset of the investor increases that adversely affects the propensity to save in the economy. It might prove to be a boom in a depression threatened economy but it is not always threatening in a capital hungry economy like India. *According to the Kaldor Effect, holding of the larger debt not only adversely affects willingness to work &investment. Learner observes, "An increase in the national debt can make the owners of government bonds less willing to work, one of the reasons for working, the earning of money to put away for the rainy day is weakened...because there is more put away already for rainy days."*

Let us briefly review the following paragraphs, the main currents of thought on the theory of the burden of Public debt.

The view of the classical economistsregarding the burden of public debt has already been discussed in detail in the previous chapter. So we shall not go in details but summarise their views in the following paragraph.

Classicals held that the internally held public debt imposes a burden just like a private debt. And they argued that the burden of the public debt is shifted to the future generation which pays the interest and the principal.

This is, however, a wrong notion, because in the case of private debt, the debtor has to pay the interest and the principal to the creditor who is a different person whereas in the case of public debt the taxpayers pay the interest and the principal to the bondholders, and since both the taxpayers and the bondholders belong to the same state, this imposes no burden on the state as a whole in the sense private debt does on the debtor.

The burden thesis of the classical public debt theory was never firmly established. There were many dissents to the classical view.

Modern Theory of The 'No Burden Thesis'

The great depression of 1930's and the Keynesian Revolution paved the way for the development of the modem theory of public debt. Their contention is that the internally held public debt involves no burden since "we owe it to ourselves." One segment of the population owes to another segment of the population and internal loan operations are mere transfers. What the tax-payers lose, the bond-holders gain and the netposition for the economy as a whole remains the same.

It is argued that it is interpersonal and international loan and not the internal loan that makes an addition to the productive assets and also carries with it the burden of meeting repayment and service charges.

Further, some economists are of the view that domestic debt is not a burden if the bonds are held by the tax-payers in the same propotions as they pay taxes and that the transfers have no economic significance because they are merely transfers of money from one pocket to another. Theoretically this arguement sounds good. But in actual practice, it is hardly possible to achieve perfect distribution as between taxpayers and bond-holders.

On the basis of the income-creating potentialities of the public debt, the Keynesian economics has dismissed the question of the burden of debt. *Debt creation brings into the exchequer unutilised resources and the productive employment of these resources leads to an increase in national income. The tax payments necessary for servicing income and debt are met out of the increased income and therefore it is no burden to the community.*

No burden thesis of the modem economists is also based on the several advantages that the existence, of a large public debt offers to the economy. *Existence of large public debt encourages the growth of financial institutions like banks, stock markets, and insurance companies. It offers capitalists maximum safety for a part of their funds and encourages them to take risks with the remainder and thus promotes savings and encourges the growth of capital and ultimatily leads to a rise in standard of living.*

The main propositions of the no-burden thesis of the modem Theory of public debt are that

(1) The creation of public debt does not involve any transfer of the primary real burden to future generations.

(2) The analogy between individual or private debt and public debt is fallacious.

(3) There is an important distinction between an internal debt and an external debt.

It may be observed that quantification of the various burdens is difficult and arbitrary. The relevant factors which should be taken into account in considering as to whether an internally held public debt imposes a burden and if so how much, are as below:

(1) The nature of the burden of an externally held public debt is different from that of an internally held public debt. In the case of externally held public debt the interest and the principal are required to be paid by the debtor countries to the creditor countries by means of export surplus and as such by the transfer of real resources from the debtor countries to the creditor countries. In the case of an internally held public debt, the sources remain within the country but only require to be transferred from the taxpayers to the bondholders in the form of interest payments to the latter.

(2) The burden of the public debt should be measured in terms of sharp pulls generated by the public borrowing programme. These sharp pulls may be caused in the economy by raising of the tax and the payment of the interest rate, and the principal, If government bonds are held generally by the richer sections and the servicing and the amortization cost is realised from the poorer sections these sharp pulls will be greater than if the bonds are held, by the poorer group and taxes are collected from the richer section. According to A.H. Hansen, "The burden of the debt, therefore, consists of the

necessity of collecting a large amount of money from persons and repaying it to others and of the possible adverse economic effects of the resulting redistribution of income, upon the amount of the national products. But it does not mean that when the tax structure is so devised that whole of the interest earning is siphoned off and thus bondholders were to pay in tax just the amountthey received in interest, there will be no sharp pulls and thus no burden. Ratchford maintains. "An internally held public debt is an economic burden even when taxes are paid to service the debt in the same ratio as the bonds are held. This is true because of the friction of levying and collecting taxes and because of the differences in the subjective effects of paying taxes and recurring interest Most important, however, is the fact that such debt is a burden because when joined with a progressive tax system, it substantially restricts, investment and thus lowers national income. Other elements of the burden are the facts that debt limits a government's freedom of action and may preclude effective control of the monetary and banking system."

(3) According to Prof. Domar, "the burden of the debtor the average tax rate covering the interest charges equals roughly speaking, the ratio of the interest charges to income or the ratio of debt to income multiplied by the interest rate paid on bonds (where the interest rate is a given constant)." Thus Domar has shown that burden as reflected in the tax rate depends not on the absolute size of the debt but on the relative growth of public debt and national income. If the national income remains constant but the volume of public debt increases, the burden of the debt would increase, but if the rise in national debt is accompanied by a simultaneous constant relative increase in the national income, the burden of the debt will fall because with a rise in national income there will be an automatic increase in the tax collection.

Thus in the opinion of Domar the national debt may increase but the tax burden may fall. He has further argued that if the national income increase by a constant relative rate, the ratio will after sometime become constant and will not vary at all whatever be the volume of the debt.

Prof. Domar has aptly made out a case for growing national debt provided it leads to increasing productivity and ever rising national income.

(4) Prof. Lerner holds the view that attainment of full employment is as the problem of the burden of the debt should be judged in terms of the burden of unemployment which would have existed in the absence of public borrowing.

(5) If the burden of an internally held public debt is measured by the amount of interest transfer to be made annually from the taxpayers to the bondholders, then it follows that the burden is not measured by the absolute amount of the public debt but by the rate of interest stipulated on bonds.

Secondary Burden of Public Debt

The secondary burden of public debt isanalysed by several economists in terms of theeffects on incentive to save, work and invest onaccount of the tax friction caused by theexistence of a large public debt. These effects areas follows.

1. Additional taxes needed to finance interest payments may have adverse incentive effect in another way. Every high tax rate may reduce the net reward for work below the value of the marginal net product and such a situation will really impair the efficiency of the economy.

2. The adverse effects of the large amount of public debt is that it increases inequality of income distribution in favour of the bondholders who are generally richer people whereas there is definite limit upto which taxes may be made progressive without serious deterimental effect on work incentives etc.

Thus it may be said that the burden of an internally held public debt cannot be determined on the basis of any one factor in isolation of other, rather it should be judged taking advantages and

disadvantages into consideration, what Ratchford calls, "a public debt will not constitute a net economic burden- unless its disadvantages outweigh its advantages."

In the end of this discussion, we may point out that in the case of an internally held debt there can never be any direct money burden or any direct money benefit as we are dealing with debtors and creditors of the samecommunity. If there is at all any burden or benefit it is real only as Dalton observes, "The debt will involve a direct real burden or a direct real benefit to the community according to the nature of the series of transfers from taxpayers to public creditors, primarily it will transfers increase or decrease the inequality of income."

Burden of External Debt

While the concept of the burden of internal debt is extermely vague, the burden of external debt is ametiable to more precise statement. External debtservicing involves transfer of resources to the foreigners and therefore, the burden will be felt heavily if national income, savings and external earnings fail to increase alternately while external debt- servicing is increasing.

It has its impact both an budgetary operations and balance of payments. Unless there is an adequate increase in the national income and savings, it becomes increasingly burdensome to allocate funds for debt services. Further, rise in national income and savings by itself is not adequate to face the debt-servicing problem. The conversion of the local currency into the foreign currencies imposes heavy strain on the balance of payments unless the growth in debt is accompained by an adequate increase in the export earnings. Hence the need for rapid increase in national income, savings and external earnings when the external, indebtedness is increasing.

Debt Burden and Future Generation

Another question which has given rise to a great deal of controvercy in recent years is whether public debt inflicts burden upon the future generation. The traditional argument is that the burden of the public debt is shifted to the future generation which pays the interest and the principal. The traditional view maintains that if taxes are used to finance a project, people pay for the project now, no burden is transferred to the future generation but if funds are raised through borrowing the present generation gets off the cost and the burden is shifted.

The above argument is stated to be wrong for the following reasons: The real burden of governmental activities must be borne in the period in which the public expenditure has been incurred, because resources are withdrawn from private use and put into public projects only in this period. Beyond any doubt, public borrowing programme generates some problems to be faced by future generation in the form of adverse effect on the economy. But there is no shifting of the basis burden to the future generations. Future generation not only inherits liabilities of the payment of interest and principal from the present generation but also inherits assets in the form of the right of receiving the interest and principal. Thus the interest and principal on the payment side, interest and principal on the receipt side belong to the same generation there is no intergeneration transfer but a transfer within the same generation.

This view, however, does not take into account that even if the real burden of financing a projects consits in the sacrifice of private consumption, the same maybe out of present or future consumption. The burden cannot be the same in the two cases. The theory of shifting of burden has thus been revived in new forms discussed below:

(1) Ricardo-Pigou Thesis

The problem of the shifting of the burdenof internal debt reached its logical conclusion in 1940's. Regarding this issue Pigou observes *"cost of anything paid for out of loans fall on the future generation,*

though 25 years ago the idea could claim respectable support, it is now everywhere acknowledged to be fallacious.

Interest and sinking fund on international loans are merely transfers from one set of people in the country to the other set, so that, the two sets together future generations as a whole are not burdened at all. They maintained that the burden of public debt can be shifted to future generations (G_2) only when on account of public borrowing first generation (G_1) reduces savings and thus investment in the economy is reducedand G_2 inherits a lesser stock of capital. The text of this thesis runs as follows:

When a government project is financed through public borrowing G_1 bequeaths the bonds to G_2 but with the bonds G_1 bequeaths a tax liability for meeting the servicing cost and the payment of the principal, built if the taxation G_2 inherits from G_1 nothing more than a tax receipts. The welfare of G_2 however, depends not on the inheritance of tax receipts or bonds, but on what it inherits in the way of real stock of capital from G_2.

The inheritance of the real stock of capital depends upon the response of the G_1 at the time of borrowing i.e. whether G_1, purchases government bonds out of voluntry savings or out of forced saving.

Now it is evident, lesser the reduction in the consumption by G_1 smaller will be saving and investment and, hence, smaller will be the inheritance of real stock of capital by G_2 from G_1 and it is only in this sense, according to Pigou, the burden of a project financed by public borrowing will shift to the G_2, otherwise not.

(2) Buchanan Thesis

In his 'Public Principle of Public Debt. Prof. Buchanan challenged the validity of Pigou's thesis. He holds that the financing of a project by the government by means of borrowing does shift a burden to the future generations. According to him the concept of burden should be, interpreted in, terms of the individual attitudes towards their economic welfare and not in terms of the inheritance of smaller or larger amount of real stock of capital. Buchanan argues that during the period in which the project is financed, and borrowing takes places, no burden of any kind takes place, individuals who give loans to the government voluntarily exchange liquid funds for less liquid government bonds instead of using the funds for acquiring consumption and or investment goods. Since, this is done voluntarily by the individuals concerned, they do not feel themselves to be any worse off. When, however, the bonds are repaidin the future generations funds are taken from the taxpayers to the bondholders as a result the taxpayers feel themselves to be worse off, but the bondholders are not better of since they have now merely changed bonds for cash. As a result, the society as a whole becomes worse off during the future generation. In this sense, the burden is shifted to the future generation.

(3) The Bowen-Davis-Kopf-Thesis

A modified version of the Buchanan thesis of transferability of the burden of public debts presented by there American economists. They have challenged the validity of Pigou Thesis. They are of the view that if the real burden of the debt is defined as the total amount of private consumption goods given up by the community at the moment of time the borrowed funds are spent the cost of the public project simply must be borne by the generations alive at the time the borrowing occurs. On the other hand, if the real burden of the debt to a generation is defined on the total consumption or private goods foregone during the lifetime of that generation as a consequence of government borrowing and attendant public spending, it may be argued that burden will be shifted to future generation.

Their argument on the basis of the second defination is like this: Suppose, generation I buys govt bonds. It sacrifices current consumption of goods and services and to that extent it bears the burden. If after some point of time, Generation II buys all the bonds held by Generation I, the initial loss

of goods and services of generation I is offset when it gets back the amount and during the lifetime of this generation there is no loss of consumptions.

Generation 1 simply postpones its consumption. In the same way Generation II will not bear any loss if its bonds are transferred to Generation III. No generation during its lifetime will bear the loss if such transfers takes place continuously. But if the govt decides to extinguish, the generation which pays extra taxes to meet the debt obligations bears the burden.

(4) The Musgave Inter-Generation

Thesis Prof. Musgave coins an inter-generationexample and observes that "regardless of the reaction of the G_1 to tax finance or loan finance, loan finance always divides the cost among generations and tax finance never can do so." *In this sense financing of a project through public borrowing does shift the burden to the generations to come*. He is concerned with a long lived govt. facility the cost of which is to be distributed equitably amongst those who use it Assume that the project has a life span of three periods. As the 1st period starts, G_1 in the last period of the span is on the scene, G_2 with one more period to go and G, in its beginning. For its explanations the period wise chart is given below:

Inter-generations Break-up

N.B. Number on the top of every G express the stage through which particular G is passing.

I	G_1^3	G_2^2	G_3^1
II	G_2^3	G_3^2	G_4^1
III	G_3^3	G_4^2	G_5^1

From the given chart it is clear that if only due shares of the cost of the project are to be taken from each generation, the share will be in proportion to the period, or periods for which the service of the facility is enjoyed by each generation. So the break up of due share of each generation will be as given below:

G_1	1/9th of the Cost
G_2	2/9th of the Cost
G_3	3/9th of the Cost
G_4	4/9th of the Cost
G_5	5/9th of the Cost

Prof. Musgrave is of the view that G_1 should pay 1/9th of the cost in taxation and so on. As to construction, 6/9th must be covered by loan; but no part of the loan can be demanded from Generation I (G_1) since it is already in its last period and thus could never be repaid. So 6/9th is financed by loans from G_2 and G_3 who are repaid before they vanish. Thus everybody gets his money back, except to the extent that heis required to pay tax, and the tax is distributed over time in accordance with the degree of service use.

Till now we have examined various theories dealing with the problem of the shifting of the burden of the debt of the future generations. Pigou and other, economists argued that no burden can be shifted forward through public borrowings expect in the limited case when the bonds have been purchased out of saving and so than capital inherited to the subsequent generation has been impaired. But various economists argued that public borrowings generate some economic and social burden to be borne by the future generation on account of payment of larger taxes, without bringing any

shrinkage m the wealth of the present generation. But on the contrary as the capacity of the society to absorb the burden of increased taxation without much adverse incentive effects is enlarged on account of increased output that can be secured in future due to borrowing and financing capital equipments, the net burden over time will be reduced. If at all there is any burden upon the distribution of the interest payments within the various groups of the society, effect of the taxation upon the income distributions in the economy; and the volume of payments in relation to the increase in real income of the economy. Lesser will be the subjective burden borne by the community, with a given progressive tax structure, smaller the amount of the interest charges and more equal distribution of the ownership of public debt is.

PRINCIPLE OF PUBLIC DEBT MANAGEMENT

Earlier we examined that in modern days public debt has occupied increasing significance in the budget of the developed as well as underdeveloped nations of the world. Nowadays government has entered the credit market as a significant borrower and it has been affecting the credit market as well as the other parts of economy not only by its volume of borrowing but also through issuing different types ofsecurities. A huge amount of public borrowing and variety of securities of different maturity, term and interest rate have set forth some complex problems to be tackled with. Hence, the uphill task of public debt management.

Public debt management may be taken torefer to any action by the government (either by the Treasury or by the Central Bank whosoever is in the charge of the public debt) with a view to affect the quantity and kind of national debt obligations of the government and to bring desired effects upon the working of the economy. As public borrowing is a deferred taxation if generates some sharp pulls due to its effect upon the distribution of the income caused by the additional taxation to meet the servicing cost and the principal of the debt and also some sharp pulls are created on account of the price instability and disequilibrium caused by its effect upon the liquidity structure of the economy. investment decision in the private sector, wastages in the public sector, etc. The efficient functioning of the public debt management machinery warrants that public borrowing programme should be so conducted, the securities should be so issued, the security mix-from non marketable to marketable, from long term to very short term securities should be so determined, the interest rates on the securities should be so fixed, the refunding, conversion and menetization of the debt should be so managed and finally for meeting the interest burden as well as the repayment of the principal of the debt tax structure of the economy should be so disturbed that the public debt management may act as a cushion to absorb the sharp pulls and to keep the sharp pulls at the minimum possible limit but without of joeparadising the development process in the under-developedcountries.

In case of developed countries, where the main problem is that of the deficiency of effective demand the main objective of the public debt management policy will be the maintenance of the effective demand in the economy consistent with a level of fullemployment and monetary stability through maintaining a suitable interest rate structure as evident from the Report of The Radcliffe Committee. "The task of debt management is to push the rate of interest to a level that is high enough to attract sufficient firm holders for debt and is yet consistent with a balance between demand in the public sector, demand in the private sector and the available resources of the economy. A tendency to curb unemployment would seem to call for budget deficit and lower interest rates both encourage extra demand for resources is a variety of ways and neither being pressed so far as to lead to an excessive pressure of demand in the future. Correspondingly, an inflationary condition would seem to point to a combination of budget surplus and higher interest rates, both checking demand in a variety of ways (including the change in the structure of the debt induced by the higher interest rates.)"

Let us discuss the main principles of public debt management as follows:

(1) *The Interest Cost of Servicing PublicDebt must be Minimised:* As the main aim of the public debt management is to encourage the mobilisation of saving to meet the increased demand of the developing economy the rate of interest on government securities should be high but the minimisation of the cost of servicing the debt objective warrants a low rate of interest. The interest cost servicing public debt should be kept minimum because the government has to impose additional taxes on the rates of existing taxes are raised for the payment of interest cost. If the interest cost is minimum. The government will have to impose smaller amount of additional taxes and vice-versa. And hence, the smaller amount of additional taxes will have less adverse effects on the various economic incentives Le. the willingness to work more and same more.

The interest cost can be minimised, if the Central Bank of a country is induced to keep the interest rate low by means of its monetary operations that is by means of bank rate policy etc. When interest rates are low in the market, the government would be able to sells its bondscarrying lower interest rates and thus would be able to raise loans at low interest cost.

But such an interest rate policy by may create inflationary pressure espacially, when the economy is already operating under full employment conditions, therefore, a low interest debt policy, which contributes to an inflationary pressure and economic instability is undesirable.

(2) Satisfaction of the Needs of Investors: There are some who argue that the public debt should be managed in such a way that the needs of the investors with regard to the types of the government securities and the terms of issues are satisfied.

A government may find it difficult to manage the public debts, if the investors. needs are not satisfied. For instance, if government desires to foods its short term debt into a long term debt, it will have to offer attractive terms on the long term securities such as higher rates of interest on them or the government may offer to the security holders to convert long term securities into cash without any loss for the purchase of new securities issued by the government. In such a case the general liquidity of the public debt remain more or less the same.

But, when the public debt management does not satisfy the needs of the investors, then may be disturbances in the security market on account of the sale of securities, the bond holders may cash their securities for one purpose or the other. But if the interest of the investor is kept at a high side, the cost of public debt, to the government may become high. Therefore, there are some who argue that the Public debt should be reduced as it matures. But if it is serviced out by the issues of new currency it would create inflation, and if it is serviced out by the issues of new currency it would create inflation, and if it is serviced out through additional taxation, it would be deflationary in its effect. Hence, both these situations should be avoided by a proper balance between the methods adopted to repay the publicdebt.

(3) *Funding The Short Term Debt into Long-Term Debt:* It has also been argued thatthe public debt management should help to fund as much of the short term debt into long-term debt into long-term debt (especially into very long term debt such as British Consols which never matures) as possible. But, the funding operation should be done in such a way that the economic stability is not disturbed. However, the advantages offered by this policy are not very great because the private short term debt would exist and compensate the monetary management.

This policy would tend to raise the long term rate of interest because the demand for long-term funds will increase, this will also increase the budget expenditure in future. Simultaneously, it would reduce the short term interest rate because the demand for short term funds will fall. But this undue rise in the long term interest rate may cause a decline in the rate and volume of private investment, resulting in recersion and unemployment. Hence the funding operation must be undertaken in such a way that there is no undue rise in the long term interest rates which may adversely affect the rate and

volume of private investment. If, however, there is a need for reducing private investment, the government may fund the short term debt into long term debt.

If the short term interest rates are low, this may induce an out flow of short term capital into other countries, where the short term interest rates are high. This may not be in the interest of the country. Hence, the funding of the short term debt into long term debt should be done in such a way that it satisfies investor's needs.

(4) *Public Debt policy must be co-ordinated with fiscal and monetary Policy:* The coordination of public debt policy with fiscal and monetary policy is essential to maintain economic stability and to promote economic growth. For instance, if the government forces the Central Bank to follow a low interest rate policy in order to keep the cost of interest payment on public debt low. It may create inflationary condition and may result in economic instability. Hence, such a situation should-be avoided by a proper coordinationbetween the public debt policy and monetary policy.

The public debt policy along with the fiscal-and monetary policy must be operated in such a manner that all the three policies contribute to economic stability and growth.

(5) Maturity, Distribution and Kinds of Debt Holders: If a large proportion of the total debt is short term debt and a high proportion of the total debt is held by banks, there can be a high degree of liquidity, which may contribute to an inflationary pressure at a time when an anti- inflationary policy may be desirable. Thus, high liquidity of debt make the control of inflations difficult. Also the purchase of such debt will not be quite effective as an anti-deflationary device.The highly liquid debt held by the individuals can he used as an anti-deflationary device by raising the price of securities, thereby, inducing people to convert them into cash for increasing their aggregate expenditure.

It is thus, clear from the study of these principles that it may not be possible to achieve all the objectives of the public debt management. For instance, the policy of keeping the interest rate low may contribute to an inflationary condition, while the funding of the short term debt into long term debt may cause recession and unemployment. *Hence, Public debt must be managed in such a way that the greatest economic advantage is secured or the least economic disadvantage is suffered*.

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LESSON-11

GROWTH OF PUBLIC DEBT IN INDIA

The Government of India, like all Governments, has borrowed in the past and does so now. But Union and State Government are empowered to borrow under certain conditions and within certain limits, in the British days, the Government borrowed mainly for war purposes. But a large part of Indian public debt was productive as it was incurred to meet capital expenditures such as railway construction, irrigation works, etc. In 1939, the total Indian public debt stood at over Rs. 1,200 crores out of which nearly Rs. 925 crores of debt was covered by interest-yielding assets and other securities and the balance was uncovered or unproductive. Of the total public debt, about Rs. 730 crores represented internal debt, and about Rs. 470 crores represented India's obligations in England.

Public Debt of the Central Governmentduring the Second World War

During the Second World War, the Indian Government was able to pay off its commitments in England. India's sterling debt was paid off and, in fact, India accumulated sterling balances. Through favourable balances, through sale of silver in London and through making purchases of raw materials and food- stuffs in India on behalf of the British Government, India accumulated sterling balances equivalent to Rs. 2,300 crores by 1945-46. A part of these sterling assets was utilised by the Government of India to repatriate its sterling debt in London.

During World War II the total rupee debt increased from Rs. 730 crores to Rs. 1,940 crores- an increase of Rs. 1,210 crores. The increase in public debt was due to war expenditure, including capital expenditure on defence and the creation of rupee counterparts for the repatriated sterling debt. The Government was able to borrow a large part of these loans at low rates of interest -about 3 percent.

Public Debt in the Post-Independence Period

Vigorous efforts were made to achievethe target and Government could nearly get the targeted amounts in all the Plans. Borrowing from the market and mobilising small savings from the people were used since 1951 as a method of financing economic development in India. The Planning Commission liked ambitions target to raise large funds from the market and through small savings schemes. This was how public borrowing and public debt came to the used to finance development. Thus, the basic reason for expansion of public debt was the need for raising funds for rapid economic development. In recent years, however, the Government is borrowing to meet its current expenditure.

The public debt of the Government of India is composed of internal debt was external debt. "Internal debt" comprises of market loans, compensation bonds, prize bonds and 15-year annuity certificates. It also includes borrowings of a temporary nature, viz. treasury bills issued to the RBI, commercial banks, etc., and also non-negotiable, non-interest bearing securities issued to international financial institutions like the IMF, World Bank and the Asian Development Bank (A.D. B). Table 20 summarizes India'spublic debt position since 1950-51.

Table 20: Public Debt of and other liabilitiesCentral Government

	1950-51	1999-2000
Items	**Amount % (Rs. Crores)**	**Amount % (Rs. Crores)**
Internal Debt and other liabilities*	2,830 (99)	9,34,130 (94)
External Debt	30 (1)	56,130 (6)
Total	2,860 (100)	9,90,260 (100)

* Excludes Rs. 300 crores which is the amount due from Pakistan on account of share of pre-partition debt.

Source: Government of India. Receipt Budget, 1999-2000.

Five significant points may be noted as regards the public debt of India.

(i) Initially, the Central Government borrowed mainly for financing development schemes. What is really alarming now is that the Central Government is forced borrow even to meet its current revenue expenditure. In other words, the Government has been living beyond its means.

(ii) External debt has increased from 1.0 percent of the total debt and other liabilities of the Central Government in 1950-51 to 6 percent in 1999-2000. The increase in the share of external debt is explained by the rapid rate at which external assistance had been obtained and utilised in recent years.

(iii) By far the largest share of India's external debt is provided by the United States of America. Dollar loans constitute over 30 per cent of India's external debt.

External debt figures represent borrowings by Central Government from external resources and are based upon historical rates of exchange. If we convert them at the exchange rate prevailing in a particular year, external debt would be much higher, as e.g.

1990-91 : Rs.66,320crores

1994-95 : Rs. 1,42,510 crores

1997-98 : Rs. 2,00,000 crores

1999-2000 : Rs. 1,50,760 crores

(iv) In addition to the public debt, the Government of India has certain other liabilities such as small savings schemes, provident funds, deposits under the Compulsory Deposit Schemes, Income Tax Annuity Deposit Schemes, Reserve Funds of the Railways and Posts and Telegraphs, etc. All these constitute the "other liabilities" of the Central Government which has to pay interest on them. The total public debt and other liabilities of the Indian Government would come to Rs. 934,130 crores by end March 2000; it was only Rs. 2,30,000 crores in March 1989 in just 10 years. Central Government's public debt and other liabilities had increased by over 4 times.

(v) The burden of servicing of public debt and other liabilities is becoming heavier with every passing year. Interest payment of the Centre is now Rs. 88,000 crores (1999-2000).

According to an agreement concluded in December 1947, all the public debt of undivided India was taken over by the Indian Government. Pakistan was alloted a small share, estimated at Rs. 300 crores but it was permitted to return the amount in 50 equal instalments starting from 1952. Pakistan has not returned even one instalment of its share of public debt. Considering the political relations between the two countries, there is no chance of India receiving Pakistan's share of debt. However, for certain reasons, this amount is always included as part of the total liabilities of the Government of India.

Debt Position of the States

Earlier, the total debt of the States wasclassified into public debt and unfunded debt. This classification has now been given up and, in the new classification, the major heads of debt are:

(i) Internal Debt. This comprises (a) current market loans and bonds issued in connection with the zamindari abolition, (b) ways and means advances and overheads repayable within seven days from the RBI, and (c) loans from banks, other institutions such as loans from State Bank of India and other commercial banks: National Credit (Long-term Operations) Food of NABARD, Employees States Insurance Corporation, etc.

(ii) Loans and advances from the Central Government. These comprise loans and advances from the Central Government for Plan and non- Plan purposes.

(iii) Provident Funds, etc. These include State provident funds, trusts and endowments. etc.

Table 21: Debt Position of the States

(Rs. crores)

Items	As at the end of March		
	1961	1971	1999 (B.E.)
1. Internal Debt,	590	1,850	72,540
2. Loans and Advances from the Central Government	2,020	6,360	2,02,080
3. Provident funds, etc.	130	540	61,750
4. Total Debt (1+2+3)	2,740	8,750	3,36,370

Source: RBI, Report on Currency and Finance, 1997-99 Vol II.

From Table 21, the following observations can be made:

(i) Total debt of the States is mountingfrom about Rs. 2,740 crores in end-March 1961 to over Rs. 3,36,370crores at end March 1999. The aggregate public debt of State Governments as ratio of GDP is now around 20 per cent and is expected to rise to 21 percent by March 1999. The declining trend in state debt GDP ratio which was observed between 1991 and 1997 seems to have been clearly reversed since 1997.

(ii) Over 60 per cent of the total debt of States consists of loans and advances from the Central Government. The share of Central loans in the total debt of State Governments has been steadily declining from about 74 per cent in 1961 to 60 percent in 1999. This reveals the extent of the indebtedness of States to the Centre is due to such diverse factors as block loans for Stare development plans, special accommodation, clearing overdrafts of States with RBI, etc.

(iii) There is a corresponding increase in the share of internal debt from 17 per cent to 21 per-cent and that of provident funds 16 per cent. This implies that State Governments have been gradually shifting towards higher-cost sources. The interest burden (i.e. ratio of interest payments to revenue receipts) of States has steadily risen from about 14 percent to about 18per cent during the 1990s.

(iv) Ways and means advances from RBIwhich include normal and special ways and means advances and overdraft from RBI repayable within seven working days frequently assumed serious proportions. Often State Governments request the Central Government to convert their overdrafts into loans.

In the past, Finance Commissions have recommended schemes to reduce the volume of Central Government loans to the States.

Unauthorised Overdrafts of States

Section 17 (5) of the RBI Act, 1934, provides that RBI should make advances to the State Governments repayable in each case not later than three months from the date of advance. As regards procedures governing State Governments borrowings from the RBI, the loan transactions may take mainly two forms:

(a) Ways and means advances These advances are made without any collateral and are provided upto certain limits prescribed by the RBI. At present these limits are fixed at thrice the level of the minimum balances that the State Governments are required to maintain with the RBI.

(b) Special ways and means advances These advances are made against pledge of Central Government securities and are sanctioned up to twice the level of normal ways and means advances. The RBI at its discretion also allows additional special ways and means advances beyond these limits.

Both normal and special ways and means advances are granted at 1 per cent below the Bank rate. These two types of accommodation with the RBI are, pre-arranged and their limits are fixed.

Unauthorised overdrafts- The extraordinary form of borrowing commonly known as unauthorized overdrafts is unauthorised in the sense that no prior arrangements are entered into between the borrowing State Government and the Reserve Bank of India. Such borrowings arise, either because the limits agreed to between the States and the RBI for ways and means advances and special ways and means advances are exceededor because these advances are not repaid within a period of three months as per rules. When a State Government resorts to such unanthorised overdrafts, the RBI draws the attention of the State Government to this fact and requests the latter to clear the overdrafts as quickly as possible. It keeps the Central Government informed.

Why do State Governments resort to unauthorized overdrafts? In most cases the State Governments are plainly unable to raise resources to finance their plan projects. Further many of them violate all canons of financial management, and lose between Rs. 1,000 to Rs. 3,000 crores every year on mismanaged state electricity boards, transport corporations and irrigation works; this is huge drain of money. They attempt to raise resources through unauthorised overdrafts actually, these overdrafts do not constitute resources at all. Unauthorised overdrafts have the same effect as that of deficit financing of the Union Government. Both raise the money supply in the country and therefore, are responsible for pushing up price level. There is, however, one slight difference. Deficit financing initially consists of a short term borrowing in the form of treasury bills but is made permanent by converting the treasury bills but is made permanent by converting the treasury bills into long term securities. On the other hand, unauthorised overdrafts have to be repaid ultimately by the State Government or by the Centre, if the State Government does not havethe necessary finances.

The overdrafts are cleared through adjustment against Central assistance to the concerned State for Plan schemes sanctioned by the Government of India or through advance payment made by the Centre to States in respect of the State's share of taxes and grants-in-aid. Sometimes, the Centre may grant ways and means assistance to States to enable them to clear their unauthorised overdrafts.

For this purpose the Centre may sell ad hoc treasury bills to the RBI to clear the overdrafts of a StateGovernment. In other words, a loan by the RBI to a State Government becomes ultimately a loan from the Central Government to the State Government. The amount of overdrafts thus cleared by the Central Government is treated by the Centre as an ad hoc loan to the States.

The Fifth Finance Commission (Mahavir Tyagi Commission) condemned the system of unauthorised overdrafts on the ground that no country with a unified currency system could afford to have more than one independent authority taking measures which result in Increase in money supply-in other words, unauthorised overdrafts run counter to the principle of sound monetary management The problem of unauthorised overdrafts became quite serious during the middle of the Fourth Plan- from Rs. 240 crores in 1969-70, ways and means advances rose to a record high of Rs. 600 crores by end March 1972 due to extensive unauthorised overdrafts. The Central Government took a serious view of the situation and ordered the Reserve Bank to discontinue as from May 1972 overdrafts to State Governments except for a temporary period of 7 days. By March 1973, the ways and means advances of RBI to States declined from Rs. 600 crores to Rs. 94 crores.

Despite stringent measures taken by the Government, unauthorised overdrafts gradually increased again and in 1981-82, they were as high as Rs. 1,060crores- if we added the ways and means advances taken by the States, their debt to the RBI came to a huge amount of Rs. 1,740 crores. This entire liability was taken over by the Central Government which asked the RBI to keep a strict watch on the ways and means advances of the States. Thanks to stem financial discipline imposed by RBI, unauthorised overdrafts came down to about Rs. 60 crores at the end of 1982-83. This stress on the financial discipline on the part of the States was the compulsion of the IMF loan, under which the Government had committed itself to a limit for net bank borrowing naturally, the States could not go about merrily piling up overdrafts.

The problem of Overdrafts can be solved through more efficient working of SEBs, State transport undertakings, irrigation works, etc. Further the States should hike water and power charges to more realistic rates. The States should also raise additional financial resources through taxes and others sources. The States should realise the need for a new pattern of plan sending based on actual resources generated by good management; for, after all, plan spending based on overdrafts is bound to collapse one day.

Problem of Public Debt Policy

The Union Government is in a position to raise loans at slightly more favourable terms than the States. It is able to offer a lower rate for loansof longer maturity than the States. Further, there is a slight disparity in the terms at which different States can borrow. It has been suggested that the Union Government alone should raise loans and should distribute the proceeds among the States according to their requirements.

Since independence the Central Governments has set up a series of banking and financial institutions which indeed constitute a captive market for Government loans. We mean here the nationalised banks, statutory and public provident funds, LIC, GIC, etc. This captive market is forced to absorb the huge amount of loans raised by the Centre.

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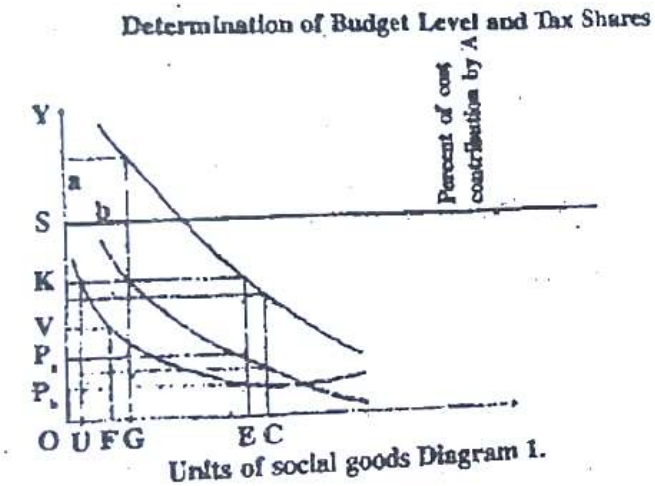
LESSON-12

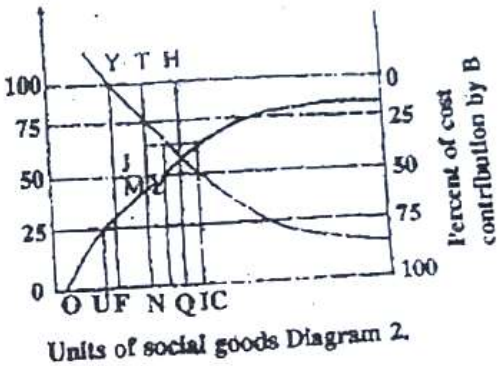
OPTIMUM PROVISION OF PUBLIC GOOD AND PURE THEORY OF GOVERNMENT EXPENDITURE

In this lesson we will be discussing optimum provision of public goods, lindhal equilibrium and the relationship between lindhal equilibrium and optimality. Pure theory of government expenditure will also be discussed in this lesson. Here we will examine more closely the way in which social wants are satisfied through the budget of the allocation branch, and how this relates to the adjustment distribution prescribed by the distribution branch. In tracing the development of thought in this matter, we find two distincts points of view. Out of these two views, one is benefit approach dating back to Adam smith and leading to voluntary exchange theory of lindhal which is of our discussion.

If we disregard minor differences, confusions, and early errors in stating the theory, the earlier writers were in agreement on the essential point of their theory: The tax must be set as a price, designed to maximise the satisfaction that the consumer derives from his payments for public and private services. The equilibrating force by which this adjustment is secured is in most cases, the political mechanism by which the agency of government is forced to represent the wishes of the voters. According to E Lindhal its solution in accordance with individual preferences involves three sets of decisions. We must determine (1) the totalamount of public expenditures and taxes, (2) the allocation of total public expenditures among goods and services providing for the satisfaction of various social wants, and (3) the allocation of total taxes among various individuals.

As a key to the solution Lindhal points to an analogous pricing process in the market. This is the allocation of the total cost of two point products, X and Y, to their respective supply prices. The allocation is not made according to cost imputation but according to we demand for the two products. If A, the purchases of X, is willing to contribute but a small portion of the total cost of producing both X and Y, then B, the purchaser of Y will be called upon to contribute a correspondingly larger share.





According to Lindhal a similar situation prevails with regard to goods and services provided for the satisfaction of social wants. They will now be refered to as social goods. To simplify matters, let us consider a community of two tax payers. A and B, and one type of social goods only. Its supply furnishes benefits to both A and B, whose benefit shares may be considered joint products. Jointly A

and B must contribute enough to cover the total cost of whatever volume of social goods is supplied, individually, each will have to pay less as theother contributes more. B's offer to contribute certain percentage of the total cost of various amounts of social goods may be interpreted, from A's point of view, as a supply schedule of social goods; and A's offer may be interpreted similarly from the view point and B as shown in the below given diagram (1) and (2).

The resulting price determination is shown in the above two diagrams. In diagram I, the volume of social goods is measured on the horizontal axis. The combind unit price, including the contribution of both A and B, is measured on the vertical axis. Lines aa and bb show the demand schedules for social goods of tax payers A and B respectively. Line tt shows the aggregate demand schedule since both must consume the same amount of social goods, it is obtained by vertical addition of the individual schedule and not by horizontal addition as in the case of private wants. The aggrigate demand schedule tt thus shows the combined price per unit of social goods, offered for various, amounts of jointly consumed public services. SS in the supply schedule of social goods that we assume are produced under conditions of constant cost. The equilibrium output OE is determined where the tt and ss schedules interset. For this amount, the combined offers, equal total cost. Taxpayer A will pay unit price OP_a while B will pay unit price OP_a. For smaller amounts, the combined offer price exceed unit cost. At amount OG, for example, the offer exceeds unit cost by SL. This leads to an increase in supply. Not more than OE can be supplied, because for larger amounts the combined offer price-falls short of unit cost. At amount OC the offer price falls short of unit cost by KS. Supply will be reduced to OE where the cost is covered. In this way, equilibrium output issaid to be established at OE.

In diagram 2, the same argument is presented in Lindhal's terms. On the horizontal axis, we measure the quantity of social goods as in diagram on the left vertical axis, we measure the percentage of total cost contributed by A, and on the right vertical axis. We measure the percentage contributed by B. The curve a, a_1, is A's demand schedule froms transcribed from aa in diagram 1, price now being measured as a percentage of cost. Taxpayer A is willing to pay 100 percent for output OG, the amount at which his demand schedule in diagram 1, intersects the supply curve; he is willing to pay 50 percent for OC, the output at which his offer price OW in diagram 1 equals one-half the unit cost as, and so forth. The curve b, b, is a similar demand schedule for B, calculated from bb in diagram 1, use being made now of the inter scale of percentage contributions on the right axis. The schedule b,b, may be viewed as B's demand schedule for social goods to A. Thus B is willing to contribute 100 percent of output au, which amount is available free to A. B is willing contribute 75 percent of as in diagram 1. This amount is available to A at 25 percent of cost, and so forth.

The equilibrium output remains at OE, where a, a, and b_1, by intersect and both shares add up to 100 percent. Here, A contributed ED, and B contributes DH per cent. For any amount in excess of OE, the combined cost share that A and B are willing to accept fall short of 100 per cent. For output OC, for instance, the combined contribution falls short of the total by JM per cent. The amount OC cannot be supplied, and output must be reduced. For any supply below OE, both A and B are willing to offer better terms than the other demands, At ON, for instance, total offers exceed costs by RZ per cent. If A contributes fraction NR, supply ON will be available to B at TR, even though he would be willing to pay TZ if needed. If B contributes TZ, A will purchase this amount for NZ, even though he would be willing to contribute NR. If A contributes NJ and B contributes TJ, both pay less than they would be willing to contribute. From this, Lindhal concludes that both parties will vote for larger amounts until OE is reached. Thus the revenue expenditure, process for the satisfaction of social wants is determined by a competitive process similar to that which applies in the privatemarket.

Appraisal in Terms of Partial Equilibrium

The claim for an optimal solution rests onthe assumption that equilibrium will be established at output OT in diagram 2, but it remains to be seen just how this equilibrium is reached. Returning to the

case of two taxpayes only, we must have a solution analogous to the cournol view of duopoly pricing. Each seller assumes his rials price to remain constant and increase his sales until a competitive supply is reached. The question is whether cournot solution can be applied to the case of social wants.

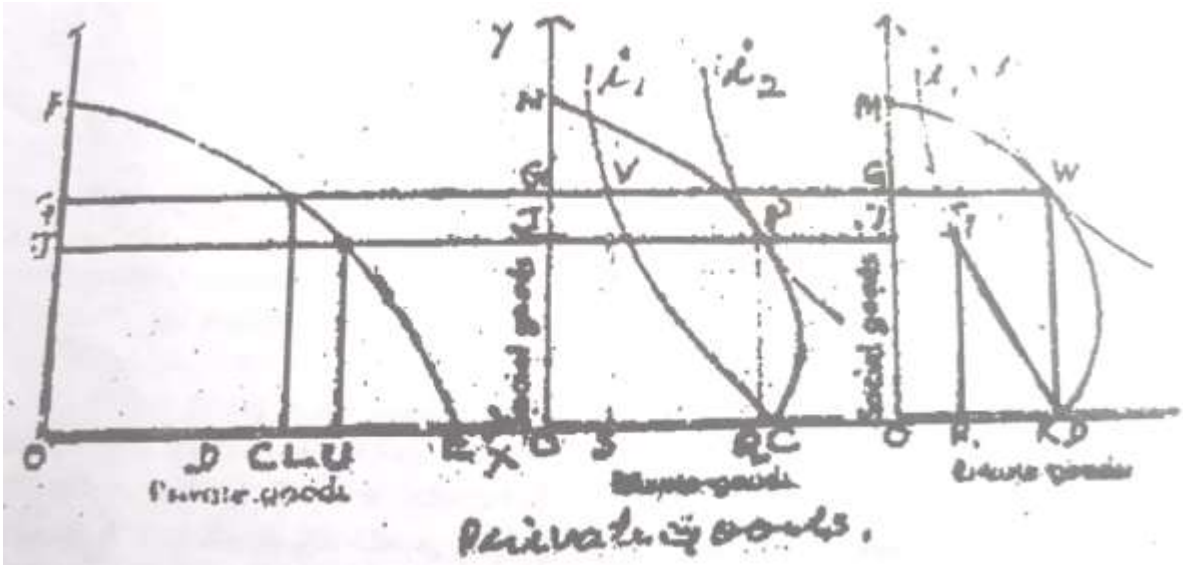
We begin with a situation where output equals ON and assume that A contributes NJ while. B contributes TJ. Following the cournol case, we suppose that A and B both disregard the effect of their votes upon the other's cost share. The position at J leaves both A and B with a price below what they would be willing to pay. Since A's share equals NJ, he will vote to expand output to OQ. Since B's share equals JT he will vote for OC. Presently, B will find out that he cannot obtain OC at the cost share TJ. At output OC, A will contribute NM only, leaving MT to B. At this price B will not agree to output OC. Thus B will vote for a smaller supply and the adjustment continues until output OQ is reached and agreed upon by both A and B. This is not,wants. We begin with diagram No.3, where thetotal output of social goods is measured on thevertical axis and that of private goods, on theLindhal's optimal output. It is simply the most favourable position in view of the fact that cost shares have been initially set at NJ/TJ. The resulting output OQ is arbitrary since it depends entirely on the cost shares. We assume to prevail at the outset. Given the assumption that both disregard the effects of their bidding on price there is nothing in the mechanism of adjustment that makes for a change in cost shares to ED/HD and a movement in supply from OQ to OE. The analogy to the cournot solution, does not apply.

Restatement in Terms of General Equilibrium

The critique of the voluntary-payment model focused on the assumption that true preferences will be revealed. We now turn to a second flow arising from the partial-equilibrium setting of the model, in which the satisfaction of social wants is considered independently of private wants. As pointed out by samuelson the problem must be restated in general-equilibrium terms.

Optimal Solution With Known Preferences

To examine this aspect of the problem letus assume that true preferences are revealed andknown. How, then, can the government arrange for an optimal allocation of resources between private and social wants?



Optimal Allocation of Social and Privatehorizontal axis. The curve FE is a transformation schedule, showing what combinations of social and private goods may be produced. Thecombination may be chosen will depend upon the preferences of our two consumer, A and B and upon the

distribution of income between them. As before, we assume that the satisfaction of social wants is to be determined on the basis of given proper distribution of income. In order to define the distribution let us assume that only private goods are produced. We then specify that A's income in terms of private goods equal OC, and that B's income equals OD, where OC + OD equals total output OE. To simplify matters, we assume further that the distribution of factor income between A and B is similar for all compositions of output between social and private goods, therefore their shares always equal OC/OE and OD/OE respectively.

Turning now to diagram 4, let us measure A's consumption of social goods on the vertical axis and the consumption of private goods on the horizontal axis. Now, let OC be A's income in terms of private goods and I,C his indifference curve through C. No arrangement for the satisfaction of social wants can be made that places A on an indifference curve lower than i,c and he will be indifferent between various points there on. At the same time, A's position on i, c, will not be indifferent to B. The latter's consumption of social and of private goods is defined by A's choice and B will prefer certain locations of A to others.

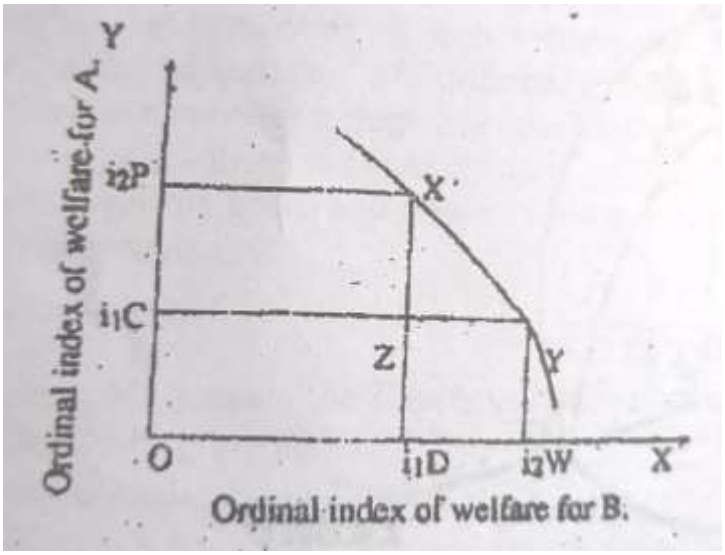
B's consumption of social goods must be the same as A's and B's consumption of private goods must equal the total supply of private goods minus A's consumption there of. The curve DM in diagram 5 shows B's consumption of social and of private goods that results as A moves up along i,c in diagram 4. If A is located at C in diagram 4. B is located at D in diagram 5. Neither receives social goods. The total output of private goods equal OE in diagram 3 of which A receives OC in diagram 4, and B receives OD in diagram 5, where OE-OC=OD. If A is located at V in diagram 4, B is located at W in diagram 5. Both receive OG of social goods. The total output of private goods equals OL in diagram 3, of which A receive an amount equal to OS indiagram 4, and B receive an amount equal to OK in diagram 5, where OK = OL - OS. Applying the same procedure to each level of social goods, we obtain the path DM in diagram 5.

Of all the combinations on the path, Bprefer W, where DM is tangent to his indifference curve iz. Here B retains OK of private goods and surrender KD of potential private goods to obtain OG of social goods, while A, located at V in diagram 4, retains as in private goods and surrenders SC of potential private goods to obtain the same OG of social goods. The cost of social goods is divided between A and B in the ratio of KD in diagram 5 to SC in diagram 4 with A paying the larger share. On balance A is as well off as in the absence of social goods since he has remained on i,c, while B's position is improved since he has moved from i, D to the-higher indifference curve 1_2 W.

We now reverse the argument and obtain curve CN in diagram 4 as the path travelled by A, while B moves up along i, D in diagram 5. Among all the points on CN, the point of tangency with an indifference curve or D will be the best for A. Now A contribute QC of potential private goods to obtain OJ of social goods, and B who is located at T in diagram 5, contribute RD of potential private goods to obtain the same OJ of social goods B now contributes the larger share. This level of indifference is the same as it was in the absence of public goods, while A has moved to a higher indifference cure and his position is improved.

We thus obtain the greatest gain that A can derive form the supply of social goods provided that B's initial position is not harmed there by we also obtain the greatest gain that B can derive without harming A. Along the vertical axis of diagram 6 given below, we measure an ordinal index of welfare for A and along the horizontal axis, a similar index for B. If no public goods are produced A is located at C in diagram 4, and his indifference level is given by i,c similarly B is located at D in diagram 5 and his indifference level is given by i,D. Both are atthe lower limit of their respective welfare levels as shown by point Z in diagram 6. If the government decide to leave B's position unchanged, an arrangement for public services may be made that raises A to indifference level I_2 p, indicated by x in diagram 6. This places A at P in diagram 4, and B at T in diagram 5. The supply of social goods equals OJ ad that of

private goods equals OG in diagram 3. If the government decides to leave A's position unchanged an arrangement for public service can be made that raised B to indifference level I_2 W. This arrangement indicated by Y in diagram 6 places B at W in diagram 5, and A at Vin diagram 4. The output of social goods equals OG and that of private goods equals OL in diagram 3. The area ZYX in diagram 6, shows the infinite number of possible solutions that leave A and B or both better off than at Z where no public services are supplied. In choosing among them, the government will elect a point on XY, since any point southwest there of permits an improvement by moving towards the utility frontier.



This much can be concluded on the basis of the preceding assumption. The choice among the infinite number of possible points on XY all of which are optimal in the pare to sense cannot be decided on the basis of the simple condition that total welfare rises if the position of any person is improved without worsening that of another. As we move from Y to X, A's position is improved and B's position is worsened. To choose among these solutions a social welfarefunction is required that permits us to evaluate the social gain or loss resulting when A's position is improved at the cost of B's or vice- versa. This need does not arise in the allocation of resources between various private wants where various individuals may consume different amount of anyone product. The simple welfare condition leads to a single solution and the optimal allocation of resources is determined uniquely on the basis of a given state of distribution.

The general-equilibrium view thus points to a second flow in the voluntary payment model. Even if all preference are revealed there is no single best solution analogous to the pareto optimum in the satisfaction of purely private wants.

In this model the difficulty is that the optimum tax structure cannot be determined without knowing the optimum amount of public expenditure and vice-versa.

At this time, an entirely different approach was developed by the Anglo-sexon economists. These economists viewed the determination of public expenditure as a planning problem. These economist were of the view that the expenditure could be determined independent of the revenue determination; and once the expenditure amount is determined, revenue to be collected, to finance this expenditure, could easily be found out.

In the Anglo-Saxon school only Pigou and Dalton have tried to formulate a theory of optimum budget incorporating both the expenditure side and the taxation side. The Pigou-Dalton approach is based on the assumption that the marginal social benefit of government expenditure, optimally

distributed amongst different sectors, diminishes as the amount of expenditure increases whereas the marginal social cost of taxation increases as the amount of taxation increases. Hence with the expansion of public expenditure we shall reach, so to say, a break evenpoint where the social benefit derived from an additional amount of government expenditure is equal to the socialcost of additional amount of taxation required for financing this expenditure.

It can be concluded that a theory ofdetermination of the public expenditure in the allocation branch of the budget must be based upon the benefit approach, particularly so in a normative theory of public finance where the planning for the provision of public goods is so made that the community as a whole, given its preference pattern (for public goods private goods and leisure) is able to derive the greatest attainable satisfaction within its budget restraints. Prof. Musgrave has, in fact, furnished us with such a theory of the planning of the public household where the optimum amount of public expenditure in the allocation branch of the budget is sought to be so determined that the community is able to reach its highest possible indifference surface. This theory is based upon two important assumptions:

(a) The preference patterns of the individuals comprising the community for the public and private goods as also leisure have been revealed, known and determined some how or other.

(b) There is a given distribution of income within the community in the post-revenue expenditure situation which is thought to be ideal; in other words, the distribution branch of the budget has been optimally determined and the same is given to the 'manager' of the allocation branch.

With these assumptions, the determination of the optimum public expenditure can be demonstrated in the following figure.

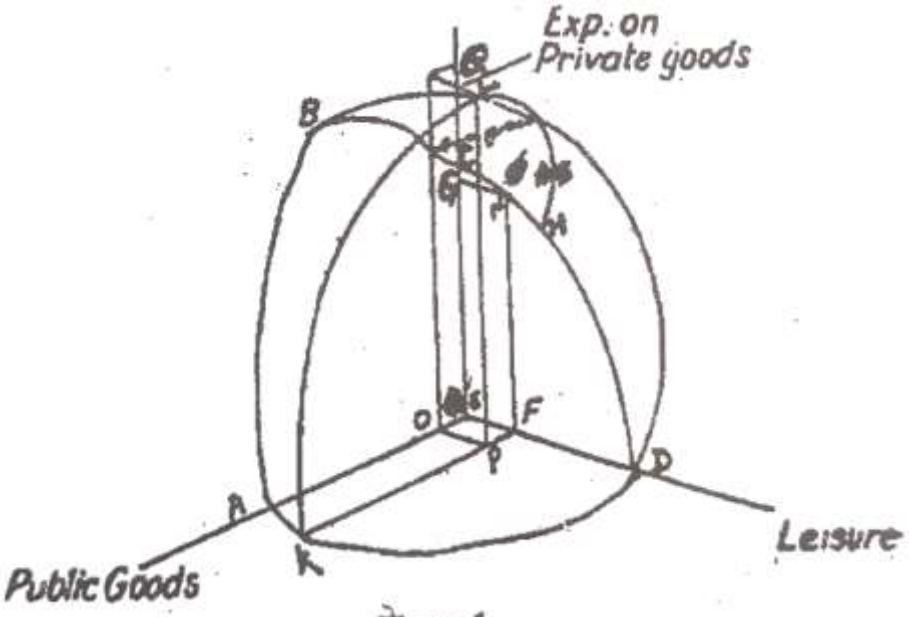


Figure 1

In this figure the expenditure on private goods is measured in the verticle axis, the expenditure on public goods is measured in the left axis and leisure is measured in the right axis. ABC is the

transformation curve, which shows different combination of private and public goods which are available to the community. TheCB range of the curve shows that upto B private and public goods are complementary to each other, and in the BA range they become substitutes. CD is combination of leisure and private goods. This curve is drawn on the assumption that private goods can be had only by sacrifing leisure. The curve AD is the lowerpanel shows various combinations of public goods and leisure.

The begin with, suppose, EF amount ofleisure is given to the community. One of the obvious combinations, which can be obained by the community is EF of leisure and EG of private goods. At this level of combination, there is no consumption of public goods. Actually, we can't measure the amount of public goods, even of the community want to consume them. To know the amount of public goods at EF level of leisure, we will have to draw a projection of transformation curve ABC on KF On this projection of curve ABC, suppose the community chooses point L on the surface KLM. At this point L, the community can have OP of leisure, which is equal to EF, OE of public goods and EQ of private goods. Clearly, the point L is better than the point N for the community, since at L it gets more public goods, more private goods and the same amount of leisure, which it can have at N. For this reason with another given amount of leisure, we can conclude that a point on the surface must be better than a point below the surface. By connecting all such 'better' points on the different surfaces with different amounts of leisure we may get a ridge line like BLD which shows the different combinations of public goods, private goods and leisure, which are open to the community.

ON this ridge, the best point will be where the indiffernce surface of the community touches the ridge line. If, for example the community indifference surface touches the ridge at point L. The optimum amount of government expenditure can at once be determined, the same being equal to EO.

Thus it can be assumed that individuals reveal their true preference patterns for public goods and the community indifference surface can consistantly be derived from these individual preference patterns. The determination of the optimum public expenditure inconfirmity with the prefernce pattern of the community is possible. These assumptions are heroic' in the sense that it is very difficult, rather, impossible to get the preferences of individuals revealed. For the purpose of planning the public expenditure, these revealation are a must, and in case of difficulty in getting those, the political process of voting is always there. Sometimes no decision of theirs is revealed by the individuals by the process of voting also. This difficulty cannot but remain so long as the consumption of social goods is possible without the revealation of the preference pattern for such goods. Still this theory of determination of public expenditure can be utilised as a guide to the determination of public expenditure can be utilised as a guide to the determination and allocation branches of the budget.

SELECTED REFERENCES:

1. R.A. Musgrave: The Theory of Public Finance, Chapter 2-6.
2. R.A. Musgrave and A. T. Peacock: Classics in The Theory of Public Finance - Introduction
3. S. Ganguli: Public Finance Ch. 4.

LESSON-13

STRUCTURE AND GROWTH OF PUBLIC EXPENDITURE

Dear Student,

In the present lesson, we will be studying the structure and growth of public expenditure in the different countries. Public expenditure occupies the same important place in the study of public finance which consumption occupies in the study of economics. *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 the total expenditure. *With expanding State activities, it is becoming increasingly difficult to judge what portion of the public expenditure can be ascribed to the maintenance of the government itself, and what portion to the benefit of the society and the economy.*

Though historically the public expenditure is found to be continuously increasing over time in almost every country, traditional thinking and philosophy have not been very encouraging to the growth of public expenditure. English economists had very little to say concerning the principles of public expenditure although they dwelt profusely on the principles of taxation. Adam Smith cannons of taxation find their due place in every modem text book on public finance. Until the first quarter of this century the theory of public expenditure was relegated to the background as the concept ofhe government was very narrow being merely regarded as an administrative institution protecting the country from the internal as well as external aggression. The state was termed just as a police state in which the activities of the government did not possess any economic importance. But in recent times, public expenditure has however, increased rapidly and enormously and the scope of public activities has greatly expanded. The modem state is termed as a "welfare state". In a welfare state, thegovernment has several political, economic andsocial functions to perform.

However, inspite of the fact that public expenditure has increased rapidly during the last two centuries or so in almost every state, and in spite of its growing role and importance in national economies, the area of public expenditure remains relatively unexplored. As Lowen Harri says, the economists have generally concentrate their attention on the theory of taxation. The theory of public expenditure has been more or less confined to that of generalities in terms of the effects of public expenditure or employment and price etc. Of course, it may be pointed out, that lately this deficiency is being removed by various studies in the field of public expenditure.

Growth of Public Expenditure:

There are three important and well- known theories of increasing public expenditure.The first of these three theories is associated with the name of famous German economist Adolph Wagner. The second theory has been developed by Wiseman and Peacock while the third theory is associated with colin Clark. Now first of all we will discuss the theory given by a German economist Adolph Wagner.

Wagner's Law of Increasing State Activities:

Adolph Wagner (1835-1917) believed that a functional "cause and effect" relationship existed between the growth of an economy and the relative growth of its public sector. According to Wagner, the relative growth of the government sector was an inherent characteristic of industrialised economies. He referred not only to Great Britain, which essentially had completed her industrial revolution before Wagner's time, but to nations such as the United States of America, France, Germany (in the west) and Japan (in the east) whose industrial, revolutions were contemporary to Wagner's life. *Wagner's*

hypothesis of the increasing state activity holds that as the per capita income and output increase in the industrialised nation, the publicsector of these nations necessarily grows as a proportion to total economic activities. F.S. Nitti supported Wagner's thesis and concluded with empirical evidence that the 'law' was not only applicable to Germany but to various governments which differed widely from each other. All kinds of government, irrespective of their level's (say, the central or state governments), intentions (peaceful or warlike, and size etc. had indicated the same tendency of increasing public expenditure. Followings are the important causes responsible for this tendency.

1. *Wagner believed that the social progress was the basic cause of the growth of government expenditure in the industrialised economies.* The chain reaction circumstances described by wagner are that social progress leads to a growth in government functions which in turn leads to the absolute and relative growth of governmental economic activity. Obviously, the law is secular (long term) in nature.

2. *Wagner also argues that there was a persistent tendency both towards an "extensive" and art "intensive" increase in the functions of the state. According to him, new functions were continuously being undertaken by the state while old functions were confirmed more efficiently and on a larger scale.*

Wagner's Law of increasing state activities is almost a universal truth in modern times. The empirical evidence lends strong support to both these statements as there is a continuous upward trend in state activities. In fact, today every conceivable activity can be usurped by the state under the garb of all pervasive concept of social or community welfare.

In his attempt to validate the hypothesis. Wagner distinguished certain types of government activities or functions. According to Wagner, the most essential function of anygovernment worth its name is that of providing the *effective law and order machinery* essential for the 'environment conditions' within which a market functions. Second, Wagner described government participation in the material production of economic goods including the provision of certain *"social product" like communications, education, health, monetary and banking arrangements in the face of "market failure".* It is argued that the need for the first type of public sector activity provision of adequate and effective law and order machinery increases alongwith the economic growth and accompanying growth in the centralised administration results in an impersonalisation and automation of many social and economic institutions.

3. *Thirdly, the traditional functions of the state were expanding.*Defence was becoming more expensive than ever before. Within the country, administrative set up was increasing both in coverage and intensity. The government machinery had to be manned by experts in their fields. Administration of justice etc. was becoming more expensive and cumbersome as the society progressed. An additional force pushing up public expenditure is the fact that various complexities of social and economic nature develop which make an efficient administration also more complex and expensive.

4. *Another important factor of increasing state expenditure is the growth of population and the growing concentration of people in towns.* The continuous process of urbanisation brings an expansion in the public expenditure for increased protection of life and property. With the growing population concentration, it is impossible to carry on the performance on public street, publiceducation and other functions on small scale. The conditions of urban life impose additional responsibilities on the government such as the inspection of food and essential drugs, against possible adullteration, improvement in the distribution of national product, promotion of public health, slum clearance, construction and maintenance of hospitals, etc.

5. *Secular rise in prices and national income has led to significant increase in the absolute amount of public expenditure.* National income in the country in the post independence period has almost doubled and the price level has also monotonically escatated ever since. The rise in the price level has two important effects, as far as the government of country is concerned. First, the government has to pay higher prices for all the goods and services, which it has to buy. Secondly, it has to find larger financial resources to meet its ever- growing expenditure. To a certain extent, the increased government expenditure is itself one of the contributory factors responsible for the rise in prices.

6. *In the beginning state activities were limited only to defence, justice, law and order, maintenance of the state and social overheads.But with the growing awareness of its responsibilities to the society, the government was expanding its activities in the field of various welfare measures.* These included the measures to enrich the cultural life of society and also those designed to provide social security to the people (such as old age pension and so on). Subsidies for all direct provision of various merit goods and public goods were on the increase. State activitieswere also increasing on account of its efforts at redistributing income and wealth.

Wagner's law was based upon historical facts. It did not show the inner compulsions under which a government had to increase its activities and public expenditure as time passes. His law is applicable to modern progressive governments only in which the state was interested in expanding the public sector of the economy and undertake other activities for the general benefit. This general tendency of expanding state activities had a definite long- term trend, though, in the short run, financial difficulties could come in way. But in the long run the desire for developing progressive people win always overcome these financial difficulties.

Wagner, thus, was emphasizing the long- term forces rather than short-term changes in public expenditure. He was also not concerned with the mechanism of increase in public expenditure. Since the study is based on the historical experience, the precise quantitative re- lationship between the extent to which public expenditure would increase and the time taken was not fixed in any logical or functional manner. The fact that, over time, public expenditure had been increasing could not be used to predict the extent to which public expenditure would change in future. Actually, it is consistent with Wagner's law to state that in future the state expenditure would increase at a rate slower than the national income though in the past it had increased at a faster rate. Thus in the initial stages of economic growth, the, state would find that it has to expand its activities quite fast in various fields like education, health, civic amenities, transport, communications, and so on. But when such an initial deficiency is met, then the increase in state activities may be at a rate slower than the overall growth in theeconomy.

Additional factors which contribute to this tendency of increasing public expenditureare as follows:

Firstly, we note that population itself isincreasing in most cases which thus becomes a major contributing factor to the growth of public expenditure. The sheer scale of various public services has to increase in harmony with the population growth for example, more schools, hospitals and such like services have to be provided to meet the extra needs of the growing population.

Secondly, an increasing shift of population to the urban areas takes place. Existing cities grow and new ones come up. Urbanization, imples a much larger per capita expenditure on civic amenities. Also quite good amount of incidential service like those connected with traffic, road, and so on have to be provided.

Thirdly, it is noticed that prices have a secular tendency to go up. Though, there are periods when prices have fallen, the over-all trend has been for them to rise.

Fourthly, *the size and nature of public services now involves specialization*. The quantity of the services improves both as a historical fact as also due to circumstantial compulsions. Better quality services and higher qualified administrators, technicians etc., imply a higher cost of providing the public services for its- own maintenance also. With rising prices, expenditure on them also goes up.

Fifthly, *a modem government considers it a part of its duty to protect the economy from the evils of market mechanism.* Accordingly, anti-cyclical and other regulatory measures are adopted. Efforts are made to reduce the income and wealth inequalities and bring about social and economic justice. Quite a sizeable expenditure on various welfare and social security measures is undertaken and it tends to increase.

Sixthly, *modern governments have shown a tendency to run into debts and this leads to a subsequent increase in public expenditure in the form of increasing cost of debt* servicing and repayment of the loans.

Seventhly, *the ideals of planning and economic growth are being increasinglyaccepted and this implies an increase in public sector as also various efforts on the part of government towards capital accumulation and economic growth.*

The hypothesis suffers from the following short comings.

1. It is unlikely the casual conditions described by Wagner which are essentially of an economic nature, constitute all the primary determinants of a relatively expanding public sector during industrialisation growth. and economic
2. Although Wagner's hypothesis possesses the attribute of accumulating and partially explaining the important historical facts, its lack of comprehensive analytical framework causes it to fall short in these explanations.
3. Wagner's hypothesis is based on an organic self-determining theory of the state, which is not, however, the prevailing accepted theory of state inmost western countries.
4. Wagner's hypothesis ignores the influence of war on government'sspending activity.
5. Wagner stresses a long-term trend of public economic activity which tends to overlook the significant "time pattern" or "process" of public expenditure growth.

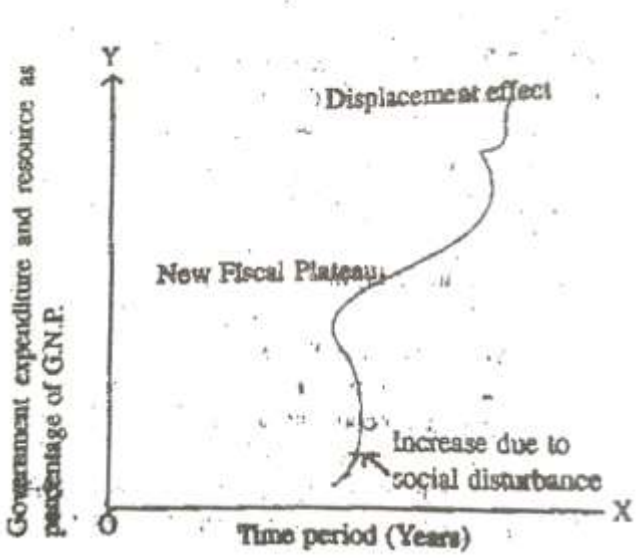
2. Wiseman-Peacock Hypothesis:

The second hypothesis of the growth ofpublic expenditure in society was advanced by Peacock and Wiseman in their well-known study of public expenditure in the United Kingdom during the period 1890-1955. It stresses the "time pattern" of public spending trends and highlights the fact *that the increase in the public expenditure does not follow any smooth and continuous trend. The increase in the public expenditure over time has occurred in jerks or step-like manner*. The general approach of thehypothesis is inclusive of the following three separate, though related, concepts.

1. Displacement effect
2. Inspection effect
3. Concentration effect

Using the empirical data for the British economy after 1890, Peacock and Wiseman observe that the relative growth of the public sector in the United Kingdom has followed a discrete step-like

pattern rather than a "continuous" growth pattern. In other words, t*he government's fiscal activities in the country have risen step by step to successive new plateaus during the period of almost seven decades covered by the study. Most of the absolute and relative increases (steps upward) In taxing and spending by the British government have taken place during periods of major social disturbances which create displacement effect by which the previous lower tax and expenditure levels are replaced by the new and higher budgetary levels. After the social disturbance has ended, however, the newly emerged levels of "tax tolerance" make the society willing to support a higher level of public expenditure since the society realises that it is capable of carrying a heavier tax burden than it previously had thought possible to bear.* Thus, when the major social disturbance ends no strong motivation exists for the society to return to the lower pre-disturbance level of taxation. The higher government revenues are used, instead, to support a permanently higher level of public sector allocation. The figure demonstrates the displacement effect The time period (in years) has been shown on the X-axis, while the public sector revenues (mostly derived from taxes) and public expenditure as a percentage of the gross national product (GNP) have been shown on the, X-axis. The figure reveals that as the social disturbances cause a relative expansion of the public sector, the displacement effect which occurs helps to explain the "time pattern" by which the governmental growth took place. The displacement effect does not require that the new higher plateau of expenditure will continue withthe same expenditure pattern that was created by the social disturbance. Although some of the increased government outlays (such as debt interest) are direct results of a social disturbance, other expenditure item frequently involve the expansion of the government activity into new areas of economic activity. War and other social disturbances frequently force the people and their government to find solutions of important problems which previously had been neglected. This is known as the inspection effect.



In addition to the displacement and inspection effects. Peacock and Wiseman also describe concentration effect. *The concentration effect refers to the apparent tendency for the central government economic activities to become an increasing proportion of the total public sector economic activity when the society is experiencing economic growth*.

In brief, Peacock and Wiseman have concluded that in the United Kingdom (1) the relative growth of the public sector has occured in a step-like pattern (displacement effect), (ii) an "inspection" process has occured whereby existing problem are more clearly defined with the potential solutions

more carefully studied during a major disturbance, and (iii) a "concentration" process has existed whereby the central government has become a largerproportion of the aggregate public sector.

Thus, the Peacok-Wiseman approach to government spending trends is much more modest in what it purports to explain than is Wagmer's Hypothesis. It does not claim to be an imutable economic principle or law, it merely attempts to point out some important characteristics of the growth pattern not to isolate all the important casual variables involved in the public sector growth. Both the Wagner and the Peacock-Wiseman hypotheses, however, contribute significantly to the understanding of the process of the growth of public sector in the industrial nations.

3. Colin Clark (Critical Limit) Hypothesis

The third thesis of the growth of publicexpenditure was advanced by Colin Clark. The hypothesis was developed immediately after the Second World War. It is concerned with the tolerance level of taxation. The critical limit hypothesis concludes from the empirical data drawn from several western countries for the interwar period that *inflation in the economy necessarily occurs when the share of the government sector, as measured in terms of taxes and other receipts, exceeds 25 percent of the aggregate economic activity in the economy.*

The hypothesis is based on the following institutional factors:

1. When taxes collected by the government reach the critical limit of 25 per cent of the aggregate economic activity reflected in the gross national product the community behaviour less productive since incentives are harmed by the fact that increasing proportions of additional income must be paid in taxes under a progressive tax system.
2. People become less resistant to various inflationary means of financing the government expenditure. Thus, the loss of incentive tends to reduce the "aggregate supply" while theincreased purchasing power resulting from inflative demand. Inflation tends to result from this new aggregate supply-aggregate demand equilibrium under condition of high employment of resources.

Colin Clark's critical hypothesis bas received a limited following in the academic circles, although it has been well received by the business community. Empirical evidence, however, demonstrates that several countries have violated the 25 per cent critical limit during recent decades without experienceing significant inflationary trends. Moreover, it is agreed that inflation is a complex economic phenomenon characterised by multiple determinants.

In three theories we have explained the causes for the growth of public expenditure in every state. The increase in public expenditure has also brought change in the structure also.

Growth and Structure of Government Expenditure In India

The traditional economists are of the view that the state should interfere least in the economic activities. J M. Keynes was the first to recognize the role of public expenditure in the determination and distribution of national income. In his "General Theory", he provided a theoretical basis that the government has not only the ability but the responsibility to use its powers to increase production, income and jobs. The role of public expenditure is, therefore, the increase income and employment efficient allocation of resources, to redistribute income and wealth from the point of view of social justice and to accelerate the rate of economic growth.

The phenomenal growth of publicexpenditure throughout the world has resulted instriking developments in recent years. Thetendency of a persistent and continuous increasein public expenditure was widely observed in the19th century. Adolf Wagner, a Germaneconomist of 19th century introduced empiricallaw to the effect that governments inevitablygrow larger and that in a

parallel manner the collective sector of the economy has an inherent tendency to grow in size and importance. But it was Keynes who studied it in so clear and definite manner.

While in the past governments restricted themselves to the problems of maintenance of law and order, external defence and administration of justice, they have now started taking upon their shoulders many new functions and responsibilities. To-day, there is no activity which the State cannot undertake, no sphere in which it cannot enter. The reason for the extension of state activities has been a change in the last hundred and fifty years or so in the basic objectives for which the State stands. Modern state has become a welfare state whose main objective is to promote economic and social wellbeing of the people. Thus there has been a change in the basic concept of the state as a result of which new functions are being performed by the state involving huge increase in public expenditure.

In India, before independence no efforts on the part of the government was made to establish a welfare state. Public expenditure was therefore, comparatively small. The Britishers were wedded to the philosophy of laissez faire and restricted their activities mainly to the security and internal law and order. Because of limited range of the activities, total expenditure was not large and most of it was spent on defence and debt services. In 1938-39, the expenditure of the Central Government on revenue account was Rs. 82 crores, out of which Rs. 60 crores was the share of defence and debt services. Social services and economic development received only Rs. 6 crores. The expenditure of the Centre Government on revenue account increased enormously. It was Rs. 506 crores in 1945-46.

The new phase of government finance of independent Indian began after 1950, especially with the First Five Year Plan in 1951-52. India, henceforth, accepted the goal of building a welfare slate based on the planned economicdevelopment and removal of social and eco- nomic disparities. These entailed substantial increases in public expenditure as a proportion of national income. Considerable, changes have taken place in public expenditure and it has increased substantially since then.

The functions and duties of a government in a federal system, as in our country, are divided between the Central Government and several State Governments. The basis of division is that whatever concerns the nation as a whole should be placed under the control of the Central Government and the matters regional interests should be in the hands of the State Government List I of the Seventh Schedule of the Constitution of India contains the functions and heads of expenditure of the Union Government whereas List II of the same schedule gives the functions of the States. List III contains the matters in which both the Union and the State Governments may functions.

The expenditure of the Union Government is divided into two parts. One is the expenditure on revenue account and second is the expenditure on capital account. The expenditure on revenue account is financed from the revenue and non-tax revenue. The expenditure on capital account is met out of the capital receipts which include market loans, external loans, small savings, government provident funds, etc.

The revenue expenditure is for the normal running of the government departments and various services; interest charges on debt incurred by the government, etc. Broadly speaking, expenditure which does not result in creation of assets is treated as revenue expenditure. All grants given to state governments and other parties are also treated as revenue expenditure.

Capital expenditure consists of expenditure on acquisition of assets like land, buildings, machinery, equipment, as also investments in shares etc. and loans and advances granted by the Central Government to States and Union Territory Governments, government companies, corporations and other parties.

The government expenditure is also classified into the following three groups: Development expenditure, defence expenditure (net) and other expenditure. The development expenditure on

revenue account includes social and community services, economic services, grants-in-aid and general services.

Social and Community services consist of (a) education, art, culture, and scientific services and research; (b) medical family welfare and public health; (c) Labour and employment, (d) broadcasting; and (e) social and Community services.

Economic services include expenditure on (a) agriculture and allied services; (b) industryand minerals; (c) foreign trade and export promotion; (d) power development; (e) transport and communication and (t) other economic services.

General services include audit, collection of taxes and duties, currency, coinage and mint, interest payments administrative services, pension and other retirement benefits, other grants to state and Union Territories, technical and economic co-operation with other countries, etc. and other general services.

The capital disbursements are also classified as development expenditure, defence expenditure, other expenditure and loans and advances of States and, Union Territories.

Suggested Readings

- Hugh Dalton, Principles of Public Finance, 1951. Ch. 16.
- A.C. Pigou, A study of Public Finance. Third Edition, Ch.5.
- J.K. Mehta, Public Finance, 1965. Chapter
- R.A. Musgrave: The Theory of Public Finance.
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LESSON-14

CONCEPTS OF BUDGET

Dear Student,

In this lesson, we discuss the theory of budgetary concepts, types of budgets, performance and programme budgets etc. so that you may have a clear idea about budget preparation and its significance. The need for a budget has been explained by Due and Friendlaender. According to them, "the governments in a democratic society seek to adopt their policies to the preferences of society, granting that in we process they exert substantial pressure upon the nature of these preference schedules and the difficulties of determining the schedules. Society through, government must determine the levels of various activities and the exact amount to be spent on each activity. The basic power over expenditures rests with the legislative body as representative of the voters, but of necessity, the chief executive and the adminstration exercise great influence both in guiding legislative action and in implementing policies within the framework of the broad guidelines established by the Legislature. The Government primarily, the executive and the administrative organization selects the methods to be used to attain the goals of society."[1]

Budget Systems:

To facilitate annual decision making on expenditures, governments have developed Budget systems, which provide for systematic presentation of recommendations for expenditure by the executive to the legislative branch of government. The budget systems, through appropriations, legisltation and control of expenditures, also provide a basis for ensuring that actual expenditures conform with the law. *A budget, therefore, may be defined as a financial plan that serves as the basis for expenditure, decision making and subsequent control ofexpenditure.*

Operations of the Budgetary Process:

A budget is designed to facilitate determination of governmental activities in the light of preferences of society by ensuring the comparison of conflicting programmes, and methods in the attainment of goals. The budget system should also aid in attaining greater efficiency in the use of government resources. The task of the government, therefore, is an extremely complex one--especially isestablishing priorities among competing goals.

As a consequence of these complexities, the operation of the budgetary process has inevitably developed many shortcuts in order to be workable. These take several forms:

1. Specialisation : The various agencies playa key role in determination of actual expenditure levels: each is concerned only with its own specialised work, with which its officials are familiar. In the U.S. in the office of Management and Budget (OMB), detailed examination of requests is made by examiners specialized by type of work. The appropriation subcommittees, which play the dominant role in congressional action, are likewise specialized by activity. Each of these groups feels justified in considering only the direct needs of theparticular activity.

2. Fragmentation: The overall budget isfragmented into small pieces for most of the work, both at the level of preparation and at the congressional committee level-and even at the level of overall action by Congress, since there are a number of appropriation bills rather than one.

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[1] "Government Finance Economics of the Public sector": J.F. Due A.F. Friendlaender: Richard D. Irvin (1931); Fifth Edition. p. 154.

3. Incremental Nature of Action: Existing programmes are not reviewed in detail each year. The presumption is that existing activities will continue unless there is strong evidence that their existence should be reconsidered, and the principle that newappropriations should be similar to the existing ones is accepted with little questions.

Thus the budgetary process becomesmanageable. The basic co-ordination is provided by the competition of the various programmes for funds in face of strong legislative resistance to continuous increases in taxes and the competition among various agencies for money. The department head, the Secretary exercises some restraining influence over the divisions so that overall requests of the department will not appear completely unreasonable. The Office of the Management and Budget (OMB), as representative of the chief executive, seeks to hold down overall spending, and the congressional committees do likewise. Despite the absence of direct, centralized decision making about the relative activities, there is downward pressure on all and particularly on those that appear to conform least with-estimates of society's preferences. Each unit, each sub- committee of appropriations, is well aware of the overall constraints and makes its own decisions in the light of them. The chief pressure to eliminate, obsolete activity is the desire of the agency or department to use the funds for expansion of other activities.

Types of Budgets:

Public sector budgets exist for two substantially different purposes.

1. The accounting function-An orderly arrangement for control of expenditures and for their relationship to governmental receipts is essential for every large financial operation. Government is no exception. This purpose of Public Sector budgetting however, is not, directly connected to the four goals or objectives of Public finance. It is merely a book keeping function.

2. In the second sense, the purpose of governmental budgeting relevant to public finance centresupon the economic problem of resources, scarcity and the related issues that derive from it. In this context, the budget is viewed as an economic means where by resources allocation, income and wealth distribution; economic stabilisation and economic growth can be affected as a whole through governmental budgetary activities.

The federal government does not possess a single budget type which meets all requirements for rationality in affecting the allocation, distribution, stabilisation and economic goals. Instead a variety of budget types exist or have been proposed. These include the (1) administrative; (2) consolidated cash; (3) national income accounts; (4) full employment; (5) capital; (6) Performance and programme budgets.

1. The Administrative Budget: At times this is also called as 'convensional budget. Essentially, it is this budget which reflects the general tax, and expenditure flows to and from the Federal Treasury. It excludes specially earmarked taxes and expenditures. The administrative budget, among the various budget concepts, receives the most attention from various agencies of the government and public.

This budget forms the basis for congressional supervision of federal taxing and spending activities. The administrative budget is essentially an accounting budget. It takes statistics directly from the accounting records of federal agencies. It does not serve well as a guide to economic policy because of inherent problems of 'incompleteness' and 'timing'.

2. The consolidated Cash Budget: It is in official use by the federal government. Generally, this budget attempts to measure all' cash flowing into and out of the Treasury including special trust and deposit fund activities. Like the administrative budget, it does not distinguish between

current and capital expenditures. Moreover, it likewise does notindicate tax receipts on an accrual basis, but only on a collection basis.

3. The National Income-Accounts Budget: In recent years increased attention has been given to the national income accounts budget as a budget well suited for policy making decisions. The data for the national income account budget are derived from the system of national income and product accounts provided by the Department of Commerce.

It also does not distinguish current from capital expenditures. The National Income Accounts budget concentrates upon income creating and resource absorbing activities instead of cash flows.

4. The Full Employment Budget: This is the newest of the budgetary concepts. The full employment budget essentially consists of the national income accounts budget as projected to conditions of full employment, given current federal tax rates and expenditure patterns.

Specially; the full employment budget 'surplus' may be defined as 'the federal budget, on a national income accounts basis. That would be generated by a given budget programme if the economy has operating at full employment with stable prices throughout the entire fiscal year.

Full employment is usually defined as a situation where 4 percent or less of the seasonally adjusted labour force is involuntarily unemployed. When the full employment budget shows surplus the surplus represents, the quantity of federal government 'saving', as measured through the national-income-accounts, that will exist under conditions of full employment. The full employment budget possesses considerable potential for successful usage as policy making tool.

5. The Capital Budget: A capital budget separates total government expenditure into current and capital items. This type of budget was suggested for the federal government as long ago as the Budget and Accounting Act of 1921. The 'current' part of the Budget reflects expenditure on recurring items such as salaries for government worker and office supplies. The'Capital' component of the budget reflects non- recurring expenditure on capital assets of a durable nature.

According to the capital budget concept the budget is balanced if current tax collections equal expenditures, current including depreciation allowances for existing durable goods. It is thus implied that long term capital items should be financed through borrowing (debt-creation) activities.

The capital budget concept for central government was popular in scandinavia, especially in Sweden, during the 1930's and now is used mother countries e.g., Netherlands, England, India, Union of South Africa, etc. also.

6. The Performance and Programme's Budget: In 1949, the Commission on Organization of the Executive Branch of the Government popularly called as the Hoover Commission, made many significant recommendations in the federal fiscal process e.g., the Commission recommended that the whole budgtary concept of the federal governments should be refashioned by the adoption of a budget based upon functions, activities and projects. This referred to what has come to known as 'Performance' and 'Programme' budgets. A 'performance' budget is based upon activities, function and projects. The performance units-the activities, functions and projects are parts of a broader and more comprehensive programme.

Though the two budget concepts the 'performance and programme' budgets are similar, they are not synonimous. The performance budget concentrates upon the efficiency of input-output relationships directed towards a particular budgetary goal. The particular performance goal is a component of a broader, more comprehensive programme. Performance and programme budgets may follow either a 'maximisation' or 'minimisation' approach, that is, they can either achieve the greatest

output results from a given resources. input, or can minimize resource costs for the attainment of a given output or goal, Actually aprogramme budget ordinarily includes several performance units.

A government agency may participate in several different programmes, but performing units within the agency are responsible for the efficiency of serving any particular programme.

Programme and performance budgeting may also be distinguished according to a time dimension. Budgetary progammes are forward looking or ex-ante plans and projections; while performance budgeting looks backwards or ex- post at the efficiency of action already taken.

Programme budgets which relate to broad programmes can assist policy making decisions at the top levels. Performance budgets are more useful for efficiency control within a particular government agency.

Thus a greater employment of performance budgeting is one of the several specific improvements most often mentioned recently to improve budgetary practice. In a fundamental sense, performance budgeting embodies an economist's approach to the budget. The proposal is that the marginal approach to decision making be explicitly recognised.

The idea behind performance budgeting is to increase efficiency in decision making. In order for decisions to be made properly, the decision maker needs to understand as fully as possible the results of the alternative courses of action open to him. As applied to the budget, this suggests that the decision maker needs to know relative costs and benefits of the various choices that might be made. The decision maker needs to know just what he will be giving up on the one hand what he is gaining on the other.

Performance budgeting at lower levels of policy administration represents an attempt to reduce alternative expenditure programmes to be measurable or quantifiable units of service that can be more correctly weighted against each other. Choices need to be known concerning the alternative means of achieving a paritcular objective. Social benefits and costs need to be related. In general, these budgeting techniques involve the use of scientific methodology topublic sector decision making.

Performance budgeting techniques: A scientific approach to decision making helps in making more rational decisions as the analyst provides full information concerning the consequences of action. Thus, a scientific approach to decision making can do much towards introducing greater efficiency into the budgetary process.

Operations Research: Such approach in scientific decision making is operations research. This has grown to be a specialised branch of study since its introduction in the World War II. Operations research represents the effort of specialists to examine exhaustively and completely the alternatives open to the decision maker. One of the major functions of operations research is that of searching for new methods, new schemes of organisation operations.

System Analysis: The operations research approach to budgeting decisions being at the lowest levels of decision making where the objectives of governmental policy can be quite clearly specified, attempts to extend this approach to higher levels in the decision making hierarchy and are sometimes defined as system analysis. Systems analysis involves the examination of a single operation in isolation.

The degree to which system analysis as a scientific aid to decision making can be helpful will vary with the particular characteristics of the problem.

Cost Benefit Analysis: Besides themilitary budget the scientific approach to the budget has been more often applied to those expenditures on natural resource development. Attempts have

frequently been made in recent years to evaluate spending programmes for irrigation projects, rivers and harbour improvements, the construction of dams, and water resource development.

Cost-benefit analysis involves the ascertainment of the economic desirability of a government project a project yielding its return over a period of years with analysis of costs and benefits over the entire economic life of theinvestment Cost benefit analysis seeks to take all benefits and costs direct and indirect, into consideration and to evaluate alternative approaches as well as the overall project in the light of objectives.

The Elements in a Cost-benefit Study

Cost-benefit studies are typically undertaken within a particular government department as a preliminary to budget preparations or as a continuing progranune to ascertain optional expenditure patterns and budget recommendations. The major steps involved in the cost-benefit study are:

1. Statements of Objectives: The goals of the particular programmes must be defined. The goal may be very specific as in an irrigation project, with the immediate objective of bringing 2,000 acres under cultivation by providing adequate water. Other projects have multiple goal e.g., dams may have flood control, irrigation, navigation, and recreational objectives. Others may have goals much more difficult to define specifically. The more sharply the goal can be defined, the greater the contribution that cost-benefit analysis can make to decision making.

2. Statement of alternatives: With many types of activities, there are various alternative ways of attaining the goals: different locations for irrigation facilities, different timings for parts of the projects (one large dam now versus many small dams built successively over a period of time) different methods of constructions.

Cost-benefit analysis seeks to determine relative benefits and costs of the major alternatives. Obviously, all possible alternatives are not considered. Since many are so clearly inferior that they do not warrant attention. Cost benefit analysis is iteself costly, therefore, the number of alternatives considered must be tolerable.

3. Analysis of Benefits: After defining objectives and establishing alternatives, the third step involves the consideration of benefits. They may be defined as the present value of the time stream of contribution to the objectives.Determination of benefits involves two major questions. Which benefits are to be included and how the benefits are to be valued?

(a) Direct and Indirect Benefits: Most of the projects provide two types of benefits:

(i) Direct benefits-those occuring directly to the users of the service provided.

(ii) Indirect benefits externalities-those occuring to others.

For example, a new transit line offers direct benefits to those who use it, and indirect benefits to others, such as reduced congestion for those who continue to drive on less crowded streets.

Obviously, the direct benefits to the users must be included. In case of indirect benefits, concentration must only be on major categories.

(b) Problems in the valuation of benefits:

(i) For various series, the direct benefits provided by them can be calculated on the basis of the revenue that would be obtained from the sale of the services with perfect discrimination. This measures the consumer's surplus, or the difference between aggregate willingness to pay and the costs of the project. For example, in case of city power and water systems, the amounts can be

calculated accurately in advance. However, in case of recreational projects. there is no real way of assessing monetary benefits to the projects.

(ii) Another valuation problem arises from the lack of perfect competition in the market for the activity or in the markets for the products produced as a result of the programme. If the government charges for the service and prices on a monopoly basis then measure of benefit will differ from the competitive market figures. Moreover, in developing economies, the government project may have such great impact upon the whole price structure that valuation of benefits at either old or new prices gives a misleading picture of the actual benefits.

(iii) Besides, valuation difficulties, estimation of benefits is always coloured byuncertainties about future conditions. For example, benefits from irrigation facilities will depend upon future trends in population and farm outputs. In case of certain activities, uncertainities are so great that any precise conclusions are impossible.

(iv) Valuation of externalities encounters even more difficult problems. For example, the task is much more difficult with such benefits as reduced air, water, and noise pollution. With purely public goods, the task is paritcularly difficult as there is no accurate way of estimating what the community as a whole is willing to pay for the services.

4. Costs: Determination of costs is the fourth step in cost benefit analysis. Project costs may be defined as the present value of resources that will be used in the project, valued at their opportunity cost, i.e. the amount that would be paid for them for alternative use.

Analysis of cost involves the same type of problem as that of benefit, although costs are more easily calculable. The direct costs include capital costs and operating and maintenance-cost over the years. Indirect cost include those created for other governmental agencies and overall costs to society not directly borne by the government.

Without cost benefit analysis, indirect costs are not often taken into account. There are obviously measurement and valuation difficulties, just as there are with benefits. Air pollution provides an excellent example.

The need for Discounting: Cost-benefit estimates are usually applied to projects which involve a considerable period of construction and are expected to yield benefits only over a long period. The projects are in the nature of public capital investments.

Because time preference benefits in subsequent years are of less importance than benefits in the current year; cost incurred now are more significant than costs incurred in later years because of the existence of interest Therefore, the process of discounting is used to adjust benefit and cost figures on the basis of theyear in which they occur.

The Cost-benefit Ratio and Choice and Method of Evaluation:

Cost benefit ratio is the device that has been developed recently as a means of selecting the separate possible projects to be undertaken. There are several alternative approaches whichare:

1. **Determination of the present value of the project, by discounting the net excess of benefits over costs (B-C) for each year back to the present year.** A project having a positive current value is justified.
2. **Determination of the ratio of the present value of total benefits to the present value of total costs (B-C) with the same discounting procedure as in the first method.** All projects that are not mutually exclusive with a benefit cost ratio in excess of 1 are justified.

3. **Internal rate of return :** The first two methods require explicit use of a social discount rate. Hence emphasis has been given to the use of the internal rate of return method. The internal rate of return is the rate of discount that will equate the net benefits over the life of the project with the original cost. While this method ranks various projects; however, it does not indicate which projects are justified except by comparison with a social rate of discount.

If there are no capital constraints and no projects are mutually exclusive, all the three criteria give the same answer about the justifibility of various projects.

The Discount rate: The benefits from projects that are subjected to cost-benefit analysis. e.g., water and transport development,

are obtained over a period of years. Some costs are incurred at the time the programme is undertaken and others in subsequent years. But a Rupee of benefits now is worth more than a Rupee of benefits 10 years from now, because interest can be earned on money. In order to evaluate a particular project and to compare alternatives, a discount factor must be used to determine the present value of benefits and costs. The various possible alternative rates are:

(a) **The Marginal Productivity of Capital in Private Investment**: The opportunity cost may be defined as the amount of funds that capital would earn in private investment. The approach is favoured by persons who seek to minimise government investment activity.

(b) **Social Rate of Time Preference:** According to this, the discount rate should be the figure of the rate of time preference, the compensation necessary to induce consumers to refrain from consumption and saving.

(c) **Government Borrowing Rate Without Reference :** To Time Preference: It refers to the rate of interest at which the particular government can borrow, without any effort to justify this figure on the time preference basis. In a sense it is the direct cost to the government of obtaining funds.

Limitations of Cost-Benefit Analysis:

1. It does not solve all problems of determination of governmental investment expenditure.
2. In evaluating programmes of relatively broad scope and in comparing programmes with different objectives, the cost benefit analysis is of limited usefulness. For example:
   (a) it does not solve the problem of optimal output of social goods:
   (b) it does not assist in the establishment of priorities for various goals, for example, national defence v/s education.
3. The problems of measurment and uncertainties are so great with many of the programmes that quantification is almost impossible. This is particularly true with public goods. The technique tends to overemphasize those benefits and costs that can be quantified compared to those that cannot.
4. The cost-benefit analysis makes no contribution toward the establishment of the social welfare function that provides answer to the relative desirability of various patterns of income distribution.

Merits of Cost-Benefit Analysis;

1. It may help in measuring distributional effects of alternative programmes.

2. Its greatest specific usefulness is foundat lower-levels of the governmental decision-making process. It stresses the need forconsidering costs as well as benefits in selecting among alternative means of accomplishing given ends and thus provides some reasonable basis for the quantification of benefits in certain activities.

3. Where objectives are clearly defined and benefits and costs are measurable, the analysis gives specific assistance in ascertainingdecisions that are most advantageous in terms ofthe accepted objectives.

4. The cost-benefit approach, in general, stresses the importance of economic considerations and of quantification of making implicit judgements more explicit, of lessening the influence of bias and of at least eliminating the worst projects.

Thus it makes significant contributions toward governmental decision making.

Suggested Readings :

1. Due and Friendlaender (1973): Government Finance-Economics of the Public Sector.
2. Bernard P. Herber (1967) : Modern Public Finance.
3. J. Burkhead (1956) :Government Budgeting.
4. J. M. Buchanan (1965): The Public Finance.
5. However Commission Report (Feb. 1949)-"Commissions on the organization of the ExecutiveBranch of the Government "Budgeting and Accounting."
6. P.E. Taylor : The Economies of Public Finance ch. 2.

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LESSON-15

FISCAL POLICY

Dear Student,

Fiscal policy is one of the instruments of macro economic policy. Macro economic policy is the normative counterpart of macro economic theory. When we speak of macroeconomic policy, it immediately raises the question, policy to attain what objectives. In other words, before we talk of any macroeconomic policy, we should be clear about the objectives of such a policy. The objectives of any Policy cannot be decided by economists alone because this requires value judgements. In practice also they are generally decided through the political process. Given the ends, the economists can analyse the various alternatives to suggest the optimum policy. In fact, all the objectives of macro economic policy are not simultaneously attainable to their fullest extent. Attainment of one objective may involve sacrifice of some other objectives to some extent as some of the objectives may be mutually conflicting, yet the choice need not take the form of choosing any particular objective with the complete elimination of all others. More likely, it may take the form of combining the various objectives in an optimum manner.

It is generally agreed that there can be broadly speaking six objectives of macroeconomic policy. The first and perhaps the foremost among them is the attainment of full employment of productive resources of a nation including its labour force. The other possible objectives are, price stability: economic growth; balance of payments equilibrium; balanced regional development; and equity.

As stated above, the objectives of macroeconomic policy can be attained with the help of certain instruments. These are: the fiscal policy, the monetary policy, the debt management policy, and prices and incomes policy. Since we are dealing here with a course on Public Finance, out concern is with fiscal policy alone.

No other branch of economics hasperhaps undergone such revolutionary developments in recent years as the fiscal theory and policy. Here, as in most other fields, all the recent innovations and developments have been with reference to the problems associated with the functioning of the developed & market economies. Only forty five years ago, fiscal policy-'a policy under which the government uses its expenditure and revenue programmes to produce desirable effects and avoid undesirable effects an the national income, production and employment, was practically unknown. Under the impact of depression and war, however, the theory of fiscal policy has made great strides during the last four and a half decades. In his development, Keyne's The General Theory of Employment Interest and Money has played an important part. The older objectives of minimum interference and avoidance of deficits have given place to the objective of promoting stability. In the immediate post-Keynesian period the emphasis was on short run stability. More recently, however, there seems to have taken place a shift in favour of long-run stability. This shift is in accord with recent theoretical developments initiated by Harrod and Damar. Broadly speaking it can be said that the primary objective of fiscal policy in advanced economics is conceived to be one of *promoting conditionsof stable growth.*

A more precise definition of fiscal policy may be given in the words of G.K. Shaw, who defined it, "to encompass any decision to change the level, composition or timing of government expenditures or to vary the burden structure or frequency of tax payments." This policy may thus be considered as a

double barrelled instrument with both barrels being discharged simultaneously when required. Since it normally influences the size of budget surplus or deficit, the latter is commonly looked upon as an index of fiscal control. Such a view, however, must be regarded as fallacious since both expendituresand receipts will normally fluctuate in response to changing income levels whilst in no way indicating a policy measure. Any decision to change the responsiveness of either expenditures of fiscal receipts to the changes in the level of economic activity, however, is very decidedly a part of the fiscal policy.

It should be noted that the changes in the government expenditures and taxes are of two types: changes which work automatically without any active decision of the government and the changes which are the result of an active decision taken by the government and are, therefore, discretionary in nature. Strictly speaking, it is the latter changes which truely make up fiscal policy, as should be obvious from Shaw's definition given above. However, the former changes have an importance of their own in relation to the level of economic activity, and they cannot, therefore, be ignored. We start the discussion with the automatic type of changes.

Automatic or Built-in Stabilisers: The contracyclical changes in tax revenues and expenditures of the government, which take place independently of any discretionary policy decision by the government, are known as automatic or built-in stabilisers. On account of the fiscal character of a modern economy, tax revenues are positively related with changes in the level of national income, while government expenditures of certain types are inversely related with the changes in the level of national income. On account of these functional relationships budgetary surplus tends to increase, or if there is a deficit it tends to decrease during the upswing of a business cycles thus reducing the inflationary potential of the economy. On the other hand, budgetary surplus tends to be reduced or a deficit tends to be increased during the downswing, thus restraining the deflationary potential. And, all this takes place without any active fiscal decision by the government. This explains the name, automatic or built-in stabilisers, given to them. They are generally found in the form of taxes, social security contributions, and unemployment insurancebenefits and agricultural subsidies etc.

Tax revenues increase and decrease withan increase or fall in economic activity, even when the rates remain unchanged. This will take place even when the tax system is a proportional tax system: the tax revenues in this case, change in direct proportion with changes in the level of income. However, in almost all the countries in modern times, the income-tax system, at least is a progressive system in which higher incomes are taxed at progressively increasing rates with an exemption limit, incomes below which are not taxed. As incomes go on during an upswing. more and more individuals cross the exemption limit and fall into the income tax net. Secondly. incomes already subject to taxation rise to come within the higher brackets subject to higher rates. Consequently tax revenues increase, in fact more than proportionately with increasing income during the upswing. Other things remaining the same, it has the effect of automatically increasing the budgetary surplus or if there is deficit in the budget reducing the budgetary deficit as the case may be. The above mechanism works in the reverse direction during the downswing (The student is advised to spell the above argument in the case of a downswing). The result is that, other things remaining the same the, budgetary surplus is reduced or if there is a deficit, the budgetary deficit is increased. This acts as a brake on the downward movementin the level of economic activity.

Modern states prefer to be welfare states, and, in such states, social security contributions and social security benefits are a common feature. During upswings of economic activity, social security contribution by workers and employers increase in amounts, linked as they are with wage and wage bill. They automatically decline with falling wages and increasing unemployment during the downswing.

The automatic changes in taxes and social security contributions, described above reduced the disposable income during the upswing and they tend to increase the disposable income during the

downswing, and thus thesechanges tend to stibilise the fluctuations in the consumption expenditure of the community. Ultimately, it contributes to stabilise the aggregate expenditure too. Similarly, due to increasing tax payments and social security contributions of firms during the upswing, their net profits rise less than they would otherwise, and during the downswing, the tax payments and social security contributions of firms decrease: and thus their net profits are made higher than they would be otherwise. All this causes contracyclical changes in private investment expenditure and thus helps to stabilise economic activity.

The government expenditure on account of social security benefits, particularly on account of employment relief, tends to decrease during the upswing, when unemployment goes on decreasing. During the downswing, on the other hand, the expenditure increases for unemployment is then on the increase. Many governments are usually committed to support agricultural prices or give subsidies to the farmers, if the agricultural prices fall below a fixed minimum. Obviously, government expenditure on this account generally decreases during the upswing, and increases during the downswing. Thus, the government expenditure under these heads varies in a contracyclical manner on account of which fluctuations in economic activity are reduced.

Although there is an opinion, as represented by a few economists like. Milton Friedman (cf. his "A Monetary and Fiscal Framework for Economic Stability"), according to which only automatic stabilisers should be relied upon yet, as we shall presently see, such a policy suffers from serious limitations on account of which it might prove to be quite ineffective.

In the first place, automatic stabilisers respond with a time lag. In-so-far-as fluctuations are caused by changes in expectations which, if not checked in time, get momentum a check would be required before the aggregate expenditure actually begins to decline, and theaggregate expenditure would require a shot in the arm before the automatic stabilisers begin to operate during a downswing. Secondly, the, lagged response of automatic stabilisers might accelerate rather than decrease fluctuations. This lag is greater, when income taxes to be paid in the current year are assessed on the income of the previous year. If the level of income in the current year has fallen, the individuals and firms have to pay taxes assessed on the basis of the higher level of incomes of the previous year. This will tend to aggravate rather than lessen the decline in the level of income and employment. Thirdly, we know it from the fiscal model of the multiplier, discussed in an earlier lesson (Lesson 9) that due to taxes the value of the multiplier is reduced but it cannot be Zero, for the multiplier is $\frac{l}{l-b+t}$ where *b* is the marginal propensity to consume disposable income and is the marginalpropensity of tax revenue. Unless the value of *t* is very high, the value of the multiplier cannot be substantially reduced. And very high tax rates for the aggregate income, as distinguished from a microscopic part of it which falls within the top bracket, are seldom to be found. This means that the damping effect of taxes on the fluctuations in the level of income and employment, caused by some autonomous change in, private investment or government expenditure, is generally, very feeble. Fourthly, the proportion of the total government expenditure that varies inversely with changes in the level of economic activity, such as expenditure on social security benefits and agriculture subsidies, is rather too small. It is because a good deal of government expenditure is dictated by policy, as, in the case of education, health and notably defence, or is contractual, as in the case of interest payment on public debt. Thus a very huge portion of public expenditure isindependent of the level of economic activity.

The effectiveness of a automatic stabiliser is somewhat enhanced through 'formula flexibility', according to which tax rates and expenditure rates are varied according to a predetermined formula such that tax rates areautomatically increased and expenditure rates automatically decreased according to the stipulated formula, during expansion; and tax rates are automatically decreased and

expenditure rates are automatically increased during contraction. But the difficulty is that cyclical fluctuations often vary in intensity as well as cause. Therefore, a formula which might be right in one situation might not be right in the another situation.

It follows, therefore, that discretionary fiscal policy is indispensable for reinforcing or modifying the effect of the built-in stabilizers, including the built-in formula flexibility. This brings us to the discussion of the discretionary fiscal policy.

Discretionary Fiscal Policy *refers to the deliberate manipulation of government expenditure and taxes, on the basis not of a previously determined formula, but of the judgement of the fiscal authorities, so as to influence the level of aggregate expenditure of the economy in the desired direction.* The discretionary fiscal measures may take any of the following three forms or some combination of them:

(i) Changes in the tax structure which influence indirectly the private consumption as well as private investment.

(ii) Changes in the level of taxation which influence the disposable income with consumers and the net profits (net of taxes) of business firms.

(iii) Changes in the level of government expenditure.

Changes in the tax structure alter the distribution of income and wealth. and they may thus cause a shift in the consumption function. During contractions and depressions, the tax structure can be made more progressive so that its burden falls much more on the classes, which predominantly do the savings, and less on, the classes, which, largely consume their incomes. This pushes up the consumption functionindicating that a larger proportion of the community's income would be spent on consumption. In theory, the consumption function can be shifted down during booms by imposing a greater tax burden on the low-income groups who have higher marginal propensity to consume and less tax burden on high-income groups-whose marginal propensity to consume is less. But, in practice, such a policy will not be politically feasible. Even in the case of depression, such a measure may not be quite effective. In-so-far as the investors generally belong to the rich classes of the society, shifting of an increasing burden of taxation to them might discourage investment expenditure. If it is so, what is gained on the consumption front is lost on the investment front and thus there might be little or no increase in the aggregate expenditure and the economy might not pick up. It is, therefore, generally inadvisable to depend on changes in the tax structure in order to influence the aggregate expenditure. It is better and more practicable to influence it through changes in the level of taxation.

Changes in the level of taxation influence the aggregate expenditure through their effects on the disposable income, on the one hand, and on net profits (net of taxes) on the other. When the level of economic activity is at a low ebb, the situation may be sought to be remedied through a reduction of the overall level of taxation; some taxes might be abolished, while the rates of others might be reduced. The reduction of tax rates, on personal incomes, increase the disposable income, and consequently, 'the total' consumption expenditure increases. The abolition and/or reduction of taxes on corporate incomes increases profits, net of taxes, which may raise the marginal efficiency of capital. Besides various types of refinements can be introduced in the tax system so as to encourage investment expenditure; for example, rebate might be given in taxes in respect of profits which are reinvested. If successful, these policies increase investment expenditure. Thus, tax policy may be mobilised to increaseconsumption as well as investment expenditure. If the government expenditure is not decreased correspondingly, the aggregate expenditure in the economy increases, which pulls, up the economic activity in general. This precondition, in fact, implies that the fiscal authority should deliberately allow tax revenues to fall below government expenditure and, thus, should adopt a policy of

deficit budgeting, when fall of economic activity is to be checked or when eco- nomic activity is to be rescued from the slough of depression.

When there is boom and aggregate expenditure of the economy over-reaches the aggregate full employment level of real income, 'inflationary gap' develops, which might engender a serious inflationary process. In order to prevent the emergence of such a situation, the measures mentioned in the preceding paragraph might be employed in the reverse gear. New taxes may be imposed and the rates of existing taxes may be increased. This has the effect of reducing disposable income, on the one hand, and diminishing net profits, on the other. The former tends to reduce the private consumption expenditure, while the latter tends to reduce the private investment expenditure. If the government expenditure is not correspondingly increased at the same time, it is expected to reduce the aggregate expenditure in the economy and given the proper extent of the rise in the level of taxation, the boom might well be brought under control. You might easily see that the policy, adumbrated in this paragraph, implies a fiscal policy, which deliberately allows tax revenues to exceed government expenditure; in other words it implies a policy of *'surplusbudgeting'*.

It should be realised that a deficit or a surplus can be created by manipulating either taxes or government expenditure or both. But, in the preceding paragraphs, we had the first of these alternatives in our mind.

The above simple account or the policy of changing the level of taxation to control the level of economic activity might suggest it to bea very simple affair. But, the fact is that there are various limitations of such a policy, on account of which the actual effects of such a policy might fall short of desired effect. Firstly, there is the practical difficulty in view of the general convention of having annual budgets, which means that major adjustments, can be made only infrequently. Apart from this practical difficultly, this policy will have the desired effect of changing private consumption expenditure, if spending changes directly with changes in the disposable income. If there is depression, for example, and taxes are reduced to increase the disposable income, aggregate expenditure will increase only if, other things remaining the same, consumption expenditure increases. The Keynesian theory of consumption function does predict this result. But this theory also suggests that the extent of such an effect might be insignificant, if the main beneficiaries of the policy are only the richer classes. On the other hand, during booms, the policy might prove to be ineffective, if a reduction in disposable income, concomitant with a rise in the level of taxation, results not in a decrease of consumption expenditure, but in a drawing down of savings.

When we come to consider the effect of this policy on investment expenditure we may find the limitations to its effectiveness much more serious than in the case of the consumption expenditure. During depressions, when business expectations are extremely pessimistic, incentives, in the form of reduced tax rates might fail to revive optimism among the investing class, which is necessary for the revival of the investment activity. During booms, on the other hand, profits might be too high and business expectations rather too optimistic for increased taxation to have any significant effect on investment.

In addition to the above difficulties, there is also the problem of timing. As in the case of the monetary policy, the problem of timing is extremely important and, at the same time very difficult too. A change in the level of taxation, if it comes about a little too soon or a little too late,might cause contrary effect. Tax changes have their effects after a time-lag. If appropriate allowance for such time-lag is not made, this policy may quite well aggravate rather than alleviate fluctuations in economic activity.

There is the further difficulty, namely, that the attempt to influence aggregate expenditure of the economy through the manipulation of the level of taxation might conflict with some other policy

objective. For example, surplus budgeting via a rise in the level of taxation might adversely affect incentives jeopardising the desired rate of growth of the economy.

Furthermore, the aggregative analysis of the effects of changes in the level of taxation blinds us of the problem of directing the aggregate demand into particular regions and sectors. If unemployment, for example, is heavily concentrated in particular industries or particular regions, the over all aggregative tax policy may not prove to be effective. This consideration may call for a policy other than a more fiscal policy manipulating taxes or public expenditure or both.

The third type of changes in fiscal policy, which can be employed to influence aggregate expenditure of the economy and thus to stabilise the level of economic activity, are the deliberate contracyclical changes in the government expenditure.

Ever since the Second World War, the share of government expenditure in the aggregate expenditure has been increasing and has become quite substantial even in those modern economies which are professionally based on private enterprise. Consequently, manipulation of government expenditure has become, an important instrument of controlling the aggregate expenditure and the level of economic activity. You will recall from the fiscal model of the multiplier that any change in government expenditure is subject to the regular multiplier effect. Therefore, if it is adjudged to be desirable in the interest of stability that the aggregate expenditure of the community whichotherwise is falling, or is inadequate to maintain a stable full or near-full employment level of income, should be increased, the government can bring about this result by increasing its own expenditure, which, through the multiplier effect, will increase the aggregate expenditure and income of the economy manifold times the increase in the government expenditure. Similarly, when it is adjudged to be desirable in the interest of stability to curb the rising aggregate expenditure of the economy, this objective can be achieved by decreasing the government expenditure. The multiplier, then, operates downward, and, the level of aggregate expenditure and national money income and bought dawn to the proper level. It can be seen, therefore, that the changes in the government expenditure serve the purpose of removing the "Inflationary gap' or filling up the 'deflationary gap' in order to stabilize the full employment level of income.

Government expenditure may be changed, and, yet, the budget may be balanced one, if taxes are also changed so, as to leave the revenue and expenditure of the government to be equal. You should, again, be able to recall from the fiscal model of the multiplier that the multiplier in such a case will not be zero but unity. In any case, it will be too weak to be a useful tool, of manipulating the aggregate expenditure. It is, therefore understood that when government expenditure is increased in order to raise the level aggregate effective demand, taxes will not be increased to meet the increased expenditure. Similarly, when the government expenditure is decreased to curb the increased aggregate expenditure, it is understood that taxes will not be reduced along with it. Thus, it also amounts to the adoption of a policy of 'deficit budgeting during depressions of contractions and of 'surplus budgeting' during booms and expansion. How, then, is it different from the tax policy which too, as we have already noted, results in 'deficit budgeting', during depressions and contractions, and 'surplus budgeting', during booms and expansion? The difference lies in thiswhile one policy operates through changing the government expenditure, leaving taxes more or less unchanged. The other policy implies the reverse of it, and this difference is quite important. If a given amount of deficit is created by reducing taxes, the multiplier effect is less than when the same amount of deficit is created by increasing the government expenditure alone. In the former case, the multiplier is $\frac{b}{l-b}$, whereb is the marginal propensity to consume, but, inthe latter case, it is $\frac{l}{l-b}$ which is greater than $\frac{b}{l-b}$, because 1 > b. This

is the one reason on which other things remaining the same, a policy of manipulating government expenditure may be preferred to a policy of manipulating taxes in order to bring about a given amount of 'deficit' or 'surplus' in the budget. However, this observation is made only to highlight the difference between the strengths of the multiplier effect in the two extreme cases. In practice it is always judicious and, to some extent, even unavoidable to combine the two instruments, government taxes and government expenditure, to achieve a given objective.

It should be noted that taxes are not the only means of financing a budgetary deficit, it can also be met through public loans. If it is so, a policy of 'deficit budgeting' will have the full multiplier effect, only if the funds received from the public as loans would have been hoarded rather than invested by the public. In fact, we pointed out a number of limitations of a simple fiscal model of the multiplier in Lesson No. 11. It will be useful to go back to this lesson, and take note of their limitations.

A public expenditure policy aimed at varying the government expenditure on public works, such as roads, canals, hospitals schools, or varying the investment expenditure in nationalised enterprises, is much more effective than a public expenditure policy aimed at stimulating the private investment and, consumption expenditure through measures likesubsidies and interest free loans. The reason of the relative ineffectiveness of the latter is that here the initiative is left to the private agencies. Even if it is assumed that the initiative would, in fact, be taken by the private individual and firms, the multiplier effect in this case would be less than in the case of direct expenditure by the government of public works or investment in nationalised industry subsidies or interest-free loans are just transfer payments, any change, which is subject to multiplier effect $\frac{b}{l-b}$, which is less than the government (direct) expenditure multiplier which is, $\frac{l}{l-b}$

Apart from the limitations on the fiscal multiplier mentioned in lesson No.9, this policy of varying public expenditure in a contracyclical manner suffers from the following practical difficulties: (i) Some government expenditure may simply substitute private expenditure. Government expenditure on health services and education may have this type of effect. To the extent it actually happens, the total increase in aggregate expenditure may be little. (ii) An policy of public works must be planned in advance, and it is essential that no time is lost in stimulating demand when a recession begins. But, in practice, some delay is inevitable, because plans have to be prepared and approved, land has to be acquired, and contracts are to be given, which may involve quite a long time-lag between the conception and the inception of the public works programme. (iii) In so-far as this policy suggests the postponing of public works during booms and shelving them till the times of contraction in economic activity, this is not always practicable. For example, road, hospitals, schools, dams and canals, and investment in public enterprises cannot be postponed till private expenditure begins to fall off. Such a policy may conflict with the long-term goals of the society. (iv) However, the greatest danger may come from the unavoidable time-lag between the conceiving of a public works programmes and its actual execution. Themultiplier effect of an increase in government expenditure may show itself, when the expansion is already under way, thus accentuating the upward instability. Similarly, due to the wrong timing, a decrease in government expenditure may show itself, when contraction is already in full swing, thus aggravating the deflationary process.

In view of the limitations of the various policy tools, it is now generally recognized that none of these tools can be usefully employed, ifit is to be used to the exclusion of all others. All these policy tools will have to be judisiously combined in an effective macro-economic policy aiming at stability. There has to be a proper combining of public expenditure policy with the tax policy, which should take

care of not only the level of taxation but also the tax structure. And the fiscal policy as a whole, must be used in conjunction with the monetary policy such that each reinforces rather than stultifies the other.

SUGGESTED READINGS:

1. F. S. Brooman: Macroeconomics, Ch. 9.
2. Dernberg and McDougall: Macroeconomics, Ch. 6.
3. M.G. Muller (ed.): Readings in Macroeconomics. Reading No. 25 by A.P. Lerner.
4. R.A. Gordon: Business Fluctuations. Ch. 20.
5. G.K. Shaw: An Introduction to the theory of Macro-Economic Policy, London Martin Robertson & Co., 1971, Chs. V & VI.
6. Raja J. Chelliah, Fiscal Policy in Underdeveloped countries: With Special Reference to India, Bombay, George Allen & Unwin (India)); 1969, Ch. 1.

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LESSON-16

FISCAL POLICY IN DEVELOPING COUNTRIES AND DEFICIT FINANCING

Dear Student,

A developing country needs specialaccelerating factors to cope with the needs of rapid growth. It has to overcome the shortage of capital and technical know-how. These two resources are very vital for economic development. While under-developed countries have human resources, they do not have sufficient savings for investments on new projects. The private sector, in under-developed countries, lacks incentive to make required investments needed for industrialisation on large scale. The State, therefore, has to take up the increasing role in economic life of the nation. Resources have to be diverted to savings by applying restraints on consumption and to divert investments from non-development projects to development projects. In order to have maximum rate of growth and to ensure that it proceeds along desired lines, a great part of the investmenthas to be made in the public sector.

Objectives of Fiscal Policy in Developing Countries

In a developing economy, the main taskof fiscal policy is to divert more resources for investment and to restrain consumption. In such countries, the rate of growth is not autonomous, hence the role of fiscal policy is to raise the ratio of saving to national income in order to accelerate growth. As compared to developed countries the nature of fluctuation in developing countries is also different. Since there is lack of diversification in the economy, the supply remains inelastic in agriculture sector, therefore, there is a great fluctuation in income and prices than in employment and output. When under- developed countries are caught by depression most of the labourers return to their previous occupation and increase disiguised unemployment in agriculture. The level of income in under-developed countries is significantly low and only maintenance of stability cannot bring about economic growth.

In context of the above discussion, the main objectives of fiscal policy for developingcountries are given 'below:

(1) To lay stress on higher rate of capitalformation:

Capital formation provides the base fordevelopment. The capital formation in most of the developing countries is relatively less than what is required for economic development. Therefore, the object of fiscal policy is to increase the rate of capital formation. It would appear on the whole that in under-developed countries with low standard of living and, rapidly increasing population, a rate of growth commensurate with needs cannot be achieved until the rate of capital formation comes upto around 20 per cent of the national income.

A study of relationship between the rate of capital formation 'and economic growth in some of the developed countries confirms this view-point. In Britain during the period of 1870- 1913, the net investment on an average was 10 to15 per cent of national income. The estimated average of Japan between 1900-1909 was around 12 per cent of national income, In United States the rate of capital formation was. relatively higher over the period 1869-1913; the net investment varied from 13 to 16 per cent ofnational product. In U.S.S.R., the net investment during the decade 1928-39 was recorded at 20 per cent of the national income. The examples of these countries bear testimony that the object of fiscal policy should be to increase the rate of capital formation to achieveeconomic progress.

(2) To modify the pattern of Investment:

In order to bring about economic development the pattern and composition of investment must be changed. In under-developed countries, the existing pattern of investment differs from optimum pattern of investment. It is the responsibility of the Government to bring about the desired change most beneficial or economic growth. In under-developed countries, there exists mounting pressure of population on land and disguised unemployment. Investments are to be modified in such a way that non- agricultural occupations are. developed in order to draw the surplus population dependent on agriculture and at the same time provide elliploymentto additional labourers which are the cause, of increasing rate of population.

It is experienced that most of thedeveloping countries rely heavily on the import of foreign capital goods which are necessary for development. They also import foodstuff which is the basic requirement. In order to remove these difficulties, the objective of the fiscal policy is to provide measures for controlling imports, increasing exports and increasing industrial and agricultural production. These measures will lead not only to balanced economic growth but will also diversify the growth.

Investments in economic and social overheads are necessary to raise the productivity of labour and at the same, time to reduce the cost of production. Investment in medical, health, education and technical training increase the productive capacity of the labour. Similarly, investments in transport and irrigation facilities are examples of economic overheads which fail to attract private capital because they do not provide quick returns. Therefore, the Government should come forward to contribute the major part of finance in order to develop economic and social overheads. Such investments will increase, the rate of return which will prove a great source of attraction to private capital investment.

(3) To reduce inequalities in the distribution of income and wealth:

The economists, in 19th century, maintained that increase in production was relatively more important than distribution. They argued that in the absence of production what is to be distributed; is it poverty? They failed to forecast that the economic and political condition would undergo such a vast change in the twentieth century. Modem economists argue, increase in production has no value unless and until it is equitably distributed. The objective of increasing production and equitable distribution cannot be left to be determined by free market forces.

Apart from this, increase in national product cannot succeed in enhancing social welfare unless equal distribution of growing national income is assured. Thus, the aim of fiscal policy is to encourage production andequitable distribution.

(4) To avoid inflation in order to ensure stability

Because of heavy expenditure inflationhas become a common feature with most of the developing countries which results in rising spiral of prices and monetary instability as well. The problem of inflation arises, because of inflationary gap. It is gap between income generation on one hand and the volume of goods and services available for purchase at the existing prices on the other.

The inflation is caused because of rise in Government expenditure on public administration, development expenditure, increasing welfare activities and occurrence of natural calamities which results in the increase of income. Wages and salaries because of the collective bargaining by trade union organisations both in private and public sector increase significantly raising the prices ultimately. The inflation can be checked only by increase in the supply of goods and services on one hand and mopping up the additional purchasing power from the public on the other. The use of fiscal policy as an instrument can prevent both up and down trends in the general price level and can maintain economic stability.

Role of Fiscal Policy in achieving economic Development Stabilisation, Social Justice and Equality:

What role various fiscal instruments can play in achieving the above objectives have been spelled out as under:

Economic Development:

A developing country, which: is attempting to transform a backward and poor economy into a modem developed economy, requires huge amount of investment. Investment in social and economic overheads like education, medical facilities, construction of roads, dams, etc. are very essential to accelerate to rate of economic development Under-developedcountries are obliged increasingly to give a crucial role to taxation, because taxation is preferable to borrowing and. deficit financing. In practice, the latter two are also adopted, but taxation has its own unique importance. Deficit financing has some severe economic repurcussions, therefore, taxation alone remains the safest means ofmobilizing resources.

The striking features of under-developed countries is the low level of savings and investments and whatever savings are available they are diverted into unproductive channels. For instance/savings are used for the purpose of speculation, investments in real estate and jewellery and for various social and religious customs, instead of being utilised for development of, agriculture, transport and industry. As a result, required amount of savings and investments are not forthcoming. Taxation, therefore, is considered a powerful instrument in the hands of Government for transferring purchasing power from private sector to public sector.

It is also suggested that in search for additional resources, the vital objective of taxation which is to raise the rate of savings and investment, should not remain confined to Government sector only. Private sector should also be fully exploited. It needs no emphasis that private investment, which is one of the integral parts of the programmes of planning, should not be unduly restricted. Savings of Government account have shown a decline to finance development programmes in most of the developing countries. Govermilents of such countries, therefore, have to rely more and more on private sector. It has been an experience all over the world that propensity to save on the part of Government is relatively lower than that of business sector. As against this the propensity to consume, in the private sector of under- developed countries, is. greater because of demonstration effect. The levy of taxation provides a wide scope. In restraining consumption over a fairely wide field to check domestic inflation which occurs while incUrring development expenditure. In this respect, taxation plays an important role in checking inflation by mopping up of excessive purchasing power. It also helps in restraining consumption by raising the prices of commodities. Taxation, therefore, according to A.P.. Lerner is, "important not as a means of raising money but as a means of cutting down private spending", because after all; "the Government can raise all the money it needs by printing it, if the raising of money is the only consideration."

In the process of attaining the objective of economic development, indirect taxes are also restorted to. They help Government in providing greater revenue for financing infrastructure and capital investment and permit comparatively a higher rate of growth that would otherwise be possible without the help of excessive money creation. They help in restricting consumption of luxury goods more effectively in: comparison to other taxes, allowing a higher rate of saving and capital formation. Indirect taxes may be less harmful to incentives than direct taxes, because most of the direct taxes are likely to be paid out of savings.

The economic conditions of under- developed countries is quite different to that of developed countries. Developed countries have achieved much what the developing countries are trying to achieve. Therefore, in addition to taxes the public expenditure policy of under-developed countries

should be such which may bring about structural changes in the economy. Developing countries are required to concentrate not only on growth but also on building up the potential for growth and, therefore, the Governments of under-developed countries are bound to make heavy expenditures on these long-term development schemes which do not bear fruits in the near future. As a matter of fact, the principle of public expenditure in under-developed countries should be a principle of public investment because without increasing investment for productive purposes, the economy of such countries cannot take a significant turn. In order to achieve long-term economic development, the investments have to concentrate on the development of investment goods sector which will not definitely, result in increase in production in the immediate future but would lead to a more rapid rate of growth of investment in the long period, because in these sectors there is a long time gap between the investment expenditure and reaping of fruits and also because the involvement of 'capital output ratio' is too high.

In developing countries, there is a limit beyond which rates of taxation cannot be raised without affecting adversely the level of investment and production. When the expenditure exceeds its current revenues, the method of financing deficit by the creation of new money may be inevitable but its continuation in underdeveloped countriesbecomes inflationary. The Governments of these countries, therefore have to float loans at home and abroad the relative share of taxation and Government borrowing should be well-defined. Taxation should 'cover only the current expenditure. Borrowing is appropriate to finance Government expenditure which results in the creation of capital assets or which is otherwise directly productive.

Economic Stability:

Fluctuations do not originate in developing countries. They are the phenomenon of developed countries and transmitted to less developed countries through foreign trade multiplier. Most of the developing countries are foreign trade oriented and fluctuations in demand for their goods abroad influence the internal demand and price.

In developing countries, the level of income is significantly low, structure of capital is small but marginal propensity to consume is high. The last characteristic creates inflationary situation which is quite different from the inflation that characterises advanced countries. *In developing countries, inflation, under- employment and under-utilisation of resources exist simultaneously*.

Attempts to force the pace ofdevelopment often tend to push up prices. This is because limited resources of under-developed countries are deliberately diverted into greater investments, so that the availability of consumer goods is reduced. This may take an acute from if the investments are diverted to projects having long gestation period. Apart from this the limited foreign exchange resources do not permit the import of goods from foreign countries. The shortage of goods thus leads to rise in prices. Inflation thus causes carries with it not only hardships to larger sections of the populations but also upsets calculations of proposed expenditure on planned programmes. Inflationside by side discourages saving also.

If deficit financing is adopted which is often unavoidable or even may be desirable, the pressure on prices become still greater. Apart from, steps to increase production, fiscalmeasures that can be adopted are taxation and borrowing to syphon off the purchasing power available in the hands of public. In addition to influencing general price-level, fiscal policy can also be used to influence the prices of specific commodities. If consumption of certain commodities is sought to be discouraged in order to mobilise savings, they can be heavily taxed.

A situation of falling prices is not a prominent characteristic of developing economies as that of rising prices but if such a situation, develops then the appropriate fiscal policy is a deficit.

There is no doubt that stability is a prerequisite for economic progress in developing countries. Only compensatory fiscal policy to tackle economic stability will not be enough. Economic development is a multi-dimensional process and for this, action on both structural and monetary fronts is needed. Therefore, monetary and fiscal policy mix is necessary to combat inflation and recession. If they are not co-ordinated they could off set each other. *In this context, it is relevant to quote the words of Harold A. Wolf, "a tight monetary policy to combat inflationary price pressures could be nullified by a fiscal policy which consisted of a deficit." Thus monetary-fiscal policy mix, according to "Harold A. Wolf, is "probably the most hopeful single weapon that we have against instability of the traditional business cycle type and against the waste of secular unemployment."*

Social Justice and Equity:

In context of developing countries redistribution of income and wealth from the point of view of social justice is of greater importance. "Social economic and political stability is not possible without... the welfare of weaker section of the community..... therefore, measures have to be devised which while adding momentum to productive forces also provided welfare to needy and poor persons, of the community."

The concept of inequality comprises three-aspects according to RJ. Chelliah. Theyare inequalities of income inequalities of wealth and the creation of a growing rentier class. [Inequalities in incomes lead to disparities inconsumption, standard of living, accentuate unequal distribution of wealth and economic power. When amassed wealth is transferred through inheritance and bequests a "rentier class is created who secure, undesirable benefit which social justice does not permit. Taxation can prove a powerful instrument in mitigating these evils. Some economists argue that unequal distribution of income and wealth tends to increase propensity to save which helps capital formation. There is some truth in the argument. In the words of W.A. Lewis, "The less developed countries have awakened into a centuary where everybody wishes to ride two horses simultaneously, the horse of economic equality and the horse of economic development. The U.S.S.R. has found these two horses will not go in the same direction and has, therefore, abandoned one of them. Other less-developed countries will have to make their own compromises."

There are two important fiscal instruments which can be utilised in reducing inequalities. The first is to reduce incomes at the tap by steeply progressive income tax and levying indirect taxes on luxury consumption goods. The other instrument is public expenditure through which the incomes of lower income groups can be raised through subsidies.

Through the device of publicexpenditure, Government can secure a better distribution of income which would help to increase social welfare. Pigou has Jointed in very clear terms, *"since a man's economic welfare is made up of his utilities, transfer of money, income from rich to the poor, similar desire attitudes will increase economic welfare. Dalton too has supported, that system of public finance is best which has the strongest tendency to reduce inequality of income."*

Deficit Financing:

By and large, there is agreement among economists that deficit financing leads toinflation or is one of the causes of inflation. Let us therefore, try to explain the meaning of deficit financing and some of its implications to understand its nature and limits. The word deficit financing is, generally, used to denote any of the following:

1. Deficit occurs because public expenditure including capital expenditure exceeds public revenue. This gap can be bridged by public borrowing. When deficits, thus occuring, are fully met by public debt in a year or year in and year out as and when they occur, it is known as "the Public Debt concept of the deficit.

2. Deficit can also occur because of the depreciation of the net assets or to make additions to net capital assets and when such deficits are covered by public debt, it is known as the Net Worth Concept of deficit.

The above two concepts of the deficit rely upon public debt for its financing. This has been an age-old method of meeting deficits in the budgets of countries. There is, however, a third concept of deficit and its financing which has been adopted in our country;

3. The deficit also occurs when the total receipts of the Government from all sources including transactions on revenue and capital accounts, remittances, deposits andmiscellaneous items fall short of its total outgo and the government makes good deficit by running down the cash balances and the issue of fresh currency or loans from the Central Bank. The government is, thus, able to incur an outlay in excess of its current resources. The government is, thus, able to raise resources without imposing taxes or raising public loans. Unlike public debts, which are raised to meet deficits corresponding to the public debt concept or networth concept, the government does not incur the liability to pay interest on the loan raised. It is true that government borrows money from the Central Bank and it pays interest thereon but the profits of the Central Bank, a. in India, are passed on to the government and, therefore, it involves no net cost to the government. This concept of deficit is based on the fact that while concluding the actual, deficit all possible sources of revenue of Central and State budgets, revenue capital and budget, should be taken in into account and secondly, when this deficit is financed as described above (running down of cash balances, issue of fresh currency, loans from Central Bank) it will lead to an increase in the money supply. For this reason, it is described as the money supply concept of deficit financing.

In our country, the concept of deficit financing that is in vogue is the money supply concept. Deficit financing does not imply deficits in the ordinary sense 'of the term. In our country, "the. term deficit financing is used to denote the direct addition to gross national expenditure through budget deficits, whether the deficits are on revenue, or capital account and they lead to an increase in the supply of money in circulation. The essence of such a policy lies therefore, in Government spending in excess of the revenue it receives in the shape of taxes earning of state enterprises loans from the public deposits and funds and another miscellaneous sources. The Government may cover the deficit either by running down its accumulated balances or by borrowing from the banking system (mainly from the Central Bank: of the country and thus creating money): In actual practices, the Central Bank of the country, in our case the Reserve Bank of India, receives securities from "the government, on their basis the Central Bank prints notes and thus additional money comes into circulation, This has been occuring in Indiain the planning era since 1951.

The first two concepts of deficit or deficit financing are in vogue in western countries. The third concept is in vogue in our country. What is the similarity or dissimilarity in the concept of deficit financing as adopted in India as compared with the concepts in other countries? There is one similarity. The concept as understood in western countries (public debt concept and/or net worth concept) and the concept as understood in our country are similar in as much as deficit financing under all concepts will lead to an increase in public expenditure than before. There is no other similarity. There is, however, a basic difference. *The concept as adopted in our country leads to increase in money supply directly whereas the concept used in western countries does not lead 'to any' direct increase in money supply. Besides, deficit financing, as understood in our country refers to financing of planned deficits, whereas deficits under the former, two concepts need not be and are, generally, unplanned deficits.*

Deficit Financing: Its objects in Developed and Under-developed countries.

Deficit financing has been used in developed countries to achieve the following objectives:

The depression of the Thirties witnessed unprecedencted decline in employmentproduction and prices. The need of the hour was to reverse the trend. It was analysed that the depression was due to lack of effective 'demand and, the remedy, therefore, lay in increasing effective demand through public expenditure, though implied deficits. Thus, in developed countries, deficit financing came to be used as a measure against the depression.

Keynes suggested it to prevent deflation. Lack of private spending was to be made good through public spending.

However, the chief cause of depression being lack of effective demand, it was realised that deficit financing can set right temporary disequilibria in the economy arising out of lack of effective demand. Therefore, whenever, it wasfelt that private investment was falling and effective demand was sagging, deficit. financing, was resorted to, to keep up aggregate effective demand.

Thus, in developed countries, deficit financing came to be adopted as a counter- cyclical measure to set aright the employment, production and price situation in the economy. However, there is one objective which is commonly sought to be achieved by developed and undeveloped countries when they resort to deficit financing. To meet the tremendous cost of war of other emergency situations arising' in the country, developed and undeveloped countries resort to deficit financing. Under such conditions, finance being an immediate necessity, any country, whether developed or under-developed, would resort to deficit financing.

There is, however, one peculiar use of deficit financing in under-developed countries. They use deficit financing as development finance also. Under-developed countries need huge sums of money to initiate a process of development. They have to build up an infrastructure for the economy and heavy investment in the agricultural and industrial sectors for their development: it is not possible to raise adequate resources for such huge programmes through normal methods of taxation and public borrowing. The government of an under-developed country; therefore, resorts to deficit financing. It is the use of deficit financing which distinguishes its role in developed countries as compared with under-developed countries. But in this situation, unless proper steps are taken, it will lead to inflationary price increases.

Deficit Financing: Its effects:

Deficit financing, as it is being resorted to in our country, has the immediate effect of increasing money supply. An increase in money supply, unless accompanied by a corresponding - increase in output. is bound to push up prices and lead to inflation in the economy.. Deficit financing in the absence of an increase in output,will become inflationary finance. If it turns out to be inflationary, the objective of development will be set at naught. The effectiveness of deficit financing for development depends upon its being non inflationary. Let, us therefore, discuss the factors which will counter the inflationary effect of deficit financing.

1. Inflation is characterised by lack ofavailable output as compared with effective demand. Effective demand is composed of private, government and foreign spending on consumption and investment goods in relation to the available output. The inflationary impact of deficit financing will, therefore, depend upon the period it takes in making additions to the available output. If, a result of inflationary finance the additions to output take a long time, deficit financing will make a positive inflationary impact. If it takes a very short time, it will have no or very little inflationary impact. The time that a project takes in turning output is known as gestation period. If deficit financing is used in projects with short gestation period, the inflationary impact will be negligible; for which a

corresponding increase in money supply the quantity of available output will also increase early. If it is used in projects with long gestation periods, it is likely to result in an increase in money supply without corresponding increase in available output in a short time, with the result that prices will tend to rise and inflation will set, in. Thus, under- developed countries need to make a very careful choice with regard to the use of deficit financing in various projects lest it may result in inflation. For instance, money raised through deficit financing may be utilized for digging wells in rural areas so thateffects will the produced in a short period in raising agricultural output. If, however, multipurpose river projects are started, production will come, years after. Meanwhile, the raising money supply will increase demand pressures on the existing sources of supply, leading to a rise in the price level as is happening in India now.

2. The inflationary impact of deficitfinancing also depends upon the monetisation of an economy. If an economy is hundered percent monetised the impact of a given amount of deficit financing will be less inflationary as compared with an economy which is only partly monetised. Let us illustrate it with the help of an example. Suppose an economy has Rs.100/- as its national income and this constitutes its money supply. Suppose the available output against it is 25 units. You may, therefore, expect that general Price Level will be Rs. 100/25 i.e.. Rs. 4/- per unit of output. If a part of the economy is non-monetised, say 20 per cent, then it means 20 units of output enter into monetary trasactions and 5 units of output do not enter into monetary transactions. Thus, the money supply of Rs.100/- has to be viewed against 20 units of output and, therefore, the general price level will be a little higher i.e. Rs.100/20 = Rs.5/- per unit. Let us resort to deficit financing of Rs.100/- so that the money supply is doubled. In the case of hundred per cent monetized sector, the price will double itself and rise to Rs.8/- per unit from Rs.4/-.per unit If there is a non-monetised sector as mentioned above, the increase in money supply has to be viewed against that output which enters intomonetary transactions. Thus, as against a money supply of Rs.200/20 we shall have only 20 units of output i.e. the price will rise and be Rs. 200/ 10/- per unit. It is higher than the rise in the case of fully monetised economy. Although in the simple example given above, the relative rise is the same; yet in terms of actual price level obtaining, one finds that it is higher when a part or the economy is non-monetised. And this higher price level obtaining, in an economy will further lead to price rise and greater inflationtary pressure, as, compared with a monetised economy with similar conditions of income and deficits.

The propensity to consume also effectsthe inflationary impact of deficit financing. A, low propensity to consume reduces the inflationary impact, whereas a high propensity to consume intensifies the impact. But propensity to consume is a factor not amendable to change in the short run, for it depend upon the standard of living and per capita income of the people. Therefore, administration of inflationary impact is not possible through the marginal propensity to consume. Conversely, if the marginal propensity to save is high, the inflationary impact will be less than when it is low.

The inflationary, conditions generated by deficit financing also depend upon the proportion which deficit finance bears to the total national income. The lower the deficits as a proportion of national income, irrespective of the amount, the lower will be the inflationary impact, In other words, assuming a corresponding rise availability of output as a result of deficit financing, the percentage rise in prices will behave more or less proportionally and hence inflationary impact will be lower.

If deficit financing leads to. utilisation of unused resources in the economy and thereby leads to an increase in output the inflationary impact will be reduced or offset completely. Inother words, if deficit

financing is used in a manner that it increases the available output to match the rise in effective demand on account of deficit financing, inflationary influences will be reduced to minimum.

The nature of public expenditure also influences the inflationary character of deficit financing. If public expenditure only adds to money incomes without an increase in output, the inflationary impact will be higher. To illustrate the point, let us suppose that a large part of government expenditure goes to meet the increased wage pockets of the people, the inflationary impact will be higher than it would be when it goes to the actual production of goods and services.

We have discussed above in factors which generally influence the inflationary impact of deficit financing under given conditions. This is by no means an exhaustive. The management of inflation on account of deficit financing also depends upon the effectiveness of government controls, public co-operation and the outlook towards future.

A NOTE ON ZERO BASE BUDGETING

The fiscal innovation "Zero Base Budgeting" was designed by Peter Pyhrr in the. early 1970s in the context of corporate industrial organisations. This idea caught the imagination of Jimmy Carter who. after becoming the President of USA applied it for the preparation of the budget for the year 1979. Thereafter, various governments have been adopting Zero Base Budgeting (ZBB) in various degrees depending upon their local requirements.

ZERO-BASE BUDGETING (ZBB) *insists forthe justification of each item of expenditure and thus recognizes on base or minimum expenditure presumed for any activity. ZBB means the past is cut-off the present is regarded as a clean state and all departments, have to start from a scratch(hence zero-base).*

As against conventional budgeting; ZBB has three distinguishing features:

Firstly, in conventional budgeting, department prepare a budget, which consists ofseveral activities wider one head, making it difficult to scrutinize each and every activity individually. This is described as aggregative approach. Under Zero Base Budgeting, each and every activity is X-rayed. For example, the health department may prepare a budget for controlling epidemics like plague, cholera. Under the ZBB approach, the question that would be asked is: What, if the Polio Eradication Programme is not funded by the State. ZBB approaches will insist on more concrete answers in quantitative terms, like the, increase in medical bills of the guardians of polio patients, increase in deformities of young children. Thus the social costs of incurring expenditure on polio eradication are compared with its social benefits. This 'implies' that each department has to justify its existence and continuance' on the basis of cost-benefit analysis. *Such exercises are intended to cut down deadwood and help more promising departments to strengthen their activities*.

Secondly, ZBB insists that even if each. activity has to be supported, can it be financed at a lower than current level. In other words, economy in public expenditure in the raison d' etre of ZBB. Thus, each programmed in closely examined and public spending is cut without affecting the current level of benefit of various public services.

Thirdly, ZBB, requires prioritizing among competiting services for budgetary allocation. The ranking is done by listing all elements of a 'package' in decreasing order of importance. The various elements of the package are funded in order to priority till resources are exhausted. May be some low priority items at the bottom of the priority list may be just eliminated on account of shortage of funds,

Thus ZBB has three essential principles: (i) Should we spend ? (ii) How, much should we spend? and (iii) Where should we spend?

Limitations of ZBB Approach

Although Mr. Yashwant Sinha has indicated the use of ZBB approach next year, still it should be clearly understood that ZBB hasseveral imitations in its application:

Firstly, in India, the emoluments of the President of India, Speaker, Deputy Speaker, Chairman and Deputy Chairman of Rajya Sabha, Supreme Court and High Court Judges are beyond the vote of the Parliament. Consequently, ZBB approach cannot be applied, to them.

Secondly, certain public services defy application of cost-benefit 'analysis. Defence, law and order and maintenance of foreign relations are such services, which cannot be brought under the scrutiny of ZBE. It would be unrealistic to ask: Why should defence expenditure on the Northern border be made when we have Himalayas to protect? The futility of such questions was realised during the Chinese invasion of India. Obviously, some questions would defy the *ZBB lense-eye. How to estimate the cost and benefit of maintaining Embassies and High Commissions by India in various countries of the World. This would pose several limitations on ZBB approach being made universal*.

Thirdly ZBB approach would be seriously opposed by bureaucracy because itevaluates the effectiveness of their decision. May be that the utility of some departments may be visible today, but in some Crisis, their utility would be more clearly realised. It may also be questioned that the scrutinisers may also be biased, their vision may be narrow and they may be looking at issues from a purely utilitarian point of view to the present and may not have long-term vision.

Lastly, ZBB approach assumes that finance department is all-powerful to dictate other departments. It also assumes cultural flexibility, but in practice the vested interests may put up arguments defending the continuance of certain expenditures.

Despite all the limitations of ZBB approaches, it has to be accepted that the basic idea behind the ZBB is to optimize the benefits of expenditure in every area of activity. As such, this is unexceptional. In any case, ZBB is long- term budgetary reform and its implementation has to be spread in a phased manner over a number of years. But basically, it is founded on sound logic.

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LESSON-17

CENTRE-STATE RELATIONS

Dear Student,

This lesson seeks to explain the evolution of financial relations between the Union and the Federation States of India, the actual devolution of resources between these two layers of government, and inter-se, distribution of resources among the States.

In India, we have federal form of government with Centre arid States with independent functions and sources of finance. The Constitution of India has made the followingprovisions:

(i) Financially strong centre: Under the constitution, the centre has been made financially stronger than the States. It has been given greater and more elastic sources of finance. It has also been given the exclusive power of deficit financing. All the residuary powers are also with the centre.

(ii) Resource Transfers: There are three sources of transfer from centre to states-taxes, duties and grants-in-aid.

(iii) Division of Financial Power: Various functions have been divided into three lists (a) Union list(b) State list (c) Concurrent list.

(iv) Finance Commission: The constitution provides for appointment of Finance Commission every five years to suggest resource transfer from the centre to state.

Finance Commission:

Under the provisions of the Constitution, the President of India is required to appoint a Finance Commission every 5 years to make recommendation in regard to the distribution of net proceeds of the taxes between the Centre and the State, the allocation of the same amongst various States, and the principles governing the grants-in-aid.

Finance Commissions have varied, although their basic functions remain the same. For example, the ninth Finance Commission has been asked to adopt a normative approach in assessing the receipts and expenditure on the revenue account of the States and the Centre and in doing so, kept in view the special problems of each State, if any, and the special requirements of the Centre such as defence, security, debt servicing and other committed expenditure or liabilities.

The recommendations of the FinanceCommissions may be grouped under three heads: (a) Tax Sharing: They include income tax, excise duties and estate duty. Under the constitution, the sharing of income tax between the Centre and the State is obligatory while the sharing of excise duties is not so; it is discretionary. The criteria for allocation of tax proceeds among the States include population, collection of taxes, efficiency in resource mobilization and fiscal discipline in a State and the degree of its economic backwardness. The State's share of income tax has been progressively increasing from 55% to 85% while that of excise duty remains more or less constant (around 40%)

(b) Grants-in-aid: They are unilateral transfers of funds from the Centre to States to meet their special financial needs arising out of budgetary gaps, for financing social services or public activities of national interest. The basic purpose of grants-in-aid was to allocate adequate resources for the States which did not get enoughby way of tax devolution.

(c) Centers' Loans to States: Various Finance Commissions, in accordance with specific terms of reference, made suggestions for governing Central loans to States to reduce their growing indebtedness and unauthorized overdrafts.

Twelfth Finance Commission Award (2005-10)

The twelfth finance commission was appointed by the President under Article 280 of the Indian Constitution in November 2002, withDr. C Rangarajan as the Chairman. TheCommission Submitted its report on November 30, 2004 and covered the period 2005-2010.

Terms of Reference:

The terms of reference of the 12th F.C. were the same as those of 11th, except the last one which was actually added later through a special notification. The terms of reference of the 12th FC were (i) The distribution between the Centre and the States of the net proceeds of taxes which are to be divided between them, and the allocation between the states of the respective shares of such proceeds;

(i) The principles which should govern the grant-in-aid of the revenues of the States out of the Consolidated Fund of India and the sums to be paid to the States which are in need of assistance by way of grants-in-aid of their revenues under Article 275 of the Constitution.

(ii) The measures needed to augment the Consolidated Fund of a State to supplement the resources of the Panchayats and Municipalities in the State;

(iii) Review the Fiscal Reform Facility introduced by the Central Government on the basis of the recommendations of the 11th FC and suggest measures for effective achievement of its objectives;

(iv) Assess the debt position of the States at the end of March 2004 and suggest necessary corrective measures Consistent with marco-economic stability and debt maintainability.

(v) Review the present arrangements as regards financing Management; and of Disaster

(vi) To recommend whither the non-tax income of profit petroleum to the Centre, arising out of contractual provisions, should be shared with the States from where the mineral oils are produced, and if so, to what extent.

Main Recommendations of the Twelfth Finance Commission:

The transfers from the centre to the States in the form of tax devolutions and grants- are meant to achieve the basic twin objectives of equity and efficiency. Thetransfers are meant to correct both the vertical and horizontal imbalances. The share of the states in the total collection of income tax is known as vertical division while the principles which govern the share of each state in the divisible pool is known as horizontal division.

Distribution of Tax Proceeds-Vertical Devolution:

In India, vertical imbalance has alwaysexisted because the central government has been assigned more revenues while the State Governments have been assigned more and larger responsibilities. Accordingly there is a need to transfer resources from centre to states to correct vertical imbalance. The 12th Finance Commission was convinced with the argument that grants provide a more effective mechanism for achieving the equalization objective and therefore the 12th FC recommended an increase in the share of the States by one percent from 29.5 percent to 30.5 percent in the shareable pool of central taxes.

As far as, the over-all transfers are concerned, the 11th finance commission has fixed it at 37.5 percent of Centre's gross revenue receipts while 12th FC fixed it at 38 percent-just 0.5 percent more than the percentage fixed by 11th FC.

Horizontal Sharing:

In India, there are considerable horizontal imbalances-States differ in area, size of population, income tax base, forest and mineral wealth, etc. There are differential capacities and needs of the States. Thus, horizontal imbalances have to be corrected while distributing central resources among all the States in the country. The 12th FC considered the criteria recommended by previous Finance Commissions and also the memorandum given by various States. Ultimately, considering all suggestions, 12th FC adopted the following criteria and weights for inter-se determination of share of States.

Criteria	Weight%
Population	25
Income distance	50
Area	10
Tax Effort	7.5
Fiscal discipline	7.5
Total	**100.00**

The 12th FC concluded; "We have tried to evolve a formula that balance equity with fiscal efficiency. Equity considerations, however, dominate, as they should, in any scheme of federal transfers trying to implement the equalization principle." Under this formula, the following five States would get the largest share of the total shareable revenue. The rest fo 23 states would share the balance 48.5 percent of the sharable pool.

State	% age share
D.P.	19.3
Bihar	11.0
Andhra Pradesh	7.4
West Bengal	7.1
Madhya Pradesh	6.7
Total	**51.5**

Grants-in-aid:

As in the case of the previous FCs, the 12th FC has recommended non-plan revenue deficit grants, under Article 275 of the Constitution to be given to 15 States whose total non-plan revenue deficit was assessed at Rs.56,856 crores for the period 2005-10. The Twelfth FC awarded the tax devolution to the tune of 81% as grants- in-aid to the tune of 19%.

Local Bodies-Panchayats and Municipalities

For the first time, 11th FC suggested the measures needed to supplement the financial resources of Panchayats and Municipalities. The commission argued that the municipalities had greater access to tax and not-tax resources of their own, and therefore, it were the Panchayats which required substantial support.

Hence the 12th FC grants-in-aid was based on the ratio of 20:80. That is 20% of the grant would go to Municipalities and 80% would go to Panchayats.

The 12th Commission has emphasized that, of the grants allocated to Panchayats, priority should be given to expenditure on the operation and maintenance cost (O & M) of water supply and sanitation and at least 50 percent of the grants provided to each State for the urban local bodies should be earmarked for the scheme of solid waste management. Besides, expenditure on the O& M costs of water supply and sanitation in rural areas and on the scheme of solid waste management in Panchayats and urban local bodies should, out of the grants allotted should be given high priority to expenditure on data base and maintenance of account.

Natural Calamity Relief TO States:

The 12th FC has also recommended continuance of the scheme of NCCF in its present form with core corpus of Rs.500 crores. The outgo from the NCCF may continue to be replenished by way of collection of National Calamity Contingent Duty and levy of specialsurcharges.

Debt Relief to State:

The 12th FC recommended the following scheme of debt relief:

(a) Rescheduling of all Central loans outstanding as on end-March 2005 into fresh loans for 20 years carrying 7.5 percent interest with effect from the year a State enacts the Fiscal Responsibility Legisiation.

(b) A debt write-off linked to reduction in revenue deficit of every State. The quantum of write-off of repayment would be linked to the absolute amount by which the revenue deficit is reduced in each successive year during the award period.

The twin objectives of the 12th FC were to give debt relief to the State and urge them to reduce and completely eliminate revenue deficit.

Sharing of Profit Petroleum

After a careful analysis of all the pointsgiven by Centre as well as State, the 12th FC awarded:

(i) The Centre should share profit petroleum, from NELP areas with the States from where the mineral oil and mineral gas are produced and the share should be 50:50

(ii) The revenue earned by the Central Government on contracts signed under the coat bed methane policy should also be shared with the producing states in the same manner as profit petroleum.

Conclusion:

The award of the Twelfth Finance Commission has been accepted by the Government, though in some cases, the Finance Ministry has added some conditional ties as, for example, the total share of the States in the Central Government's gross revenue should not exceed 38%. The award, broadly, was on predictable lines. In going through the whole award and the arguments given by both the Centre

and the States, two Important points arise which will have to be discussed and solved by future commissions:

(a) The Centre has really no important functions of law and order and nation building, but has IAS bureaucrats have taken advantage of poor ministerial material, and have managed to create, expand and multiply departments just to increase Central expenditure, even in those areas which are the constitutional functions of the States. In other words, there is a legitimate case for the reduction of the Central Government expenditure. More Central revenues can and should be transferred to the States.

(b) Just as all central taxes are being shared with the States from the 11th FC, there is a legitimate case for the sharing of all non-tax revenues also with the State

The attitude of the Centre as Big Generous Brother distributing part of the common income to the poor cousins (the states) should stop. The sooner this is done, the better.

CENTRE-STATE CONFLICT ON FINANCES

In the last few years, there has been growing conflict and tension between Indian Union and the States in the matter of finance. This conflict has often been aggravated by political and ideological differences between the different parties governing the Centre and the State.

The framers of the Indian Constitutionprovided for grants and loans so that the Centre might come to the help of those States which were in difficulty and also to bring about balanced development of the different regions. The use of grants and loans in the last 40 years or so, however, has resulted in the complete domination and control of the States by the Centre and to a certain extent, even financial irresponsibility and indiscipline on the part of the States. The enormous increase in transferred resources from the Centre to the States, the phenomenal growth in loan assistance to the States, and the political pressure amounting to blackmail by the centre through the instrument of grants have frightened the State. Hence, there has been an insistent demand for a comprehensive review of Centre-State relations in general and Centre-State financial relations in particular. The J.K. Thavaraj Committee (Report of the Taxation, Enquiry Committee, Kerala Government), The Rajamannar Committee on Centre-State relations appointed by the DMK government of Tamil Nadu and the document on Centre-State relations (1978) adopted by the West Bengal cabinet led by the CPI-M United Front-all these has the same theme viz., political and financial autonomy for the State and drastic restriction of the power and financial resourcesof the Centre.

Responsibility and Resources of the Centre and of the State

According to the Constitution, the Centre has to concern itself with the most generalized features of the Indian economy such as the creation and maintenance of the banking system, railways and ports as well as facilities for national economic planning with the regulation and development of large-scale industries,exploitation of mineral resources, regulation of foreign trade, etc., besides, of course, the defence of the nation from foreign aggression. On the other hand, the States are concerned with important aspects of the life of the people, such as the maintenance of law and other, the construction and maintenance of irrigation, power, road transport, etc. the development of education and health facilities, the promotion of primary sector such as agriculture, fisheries, forests and secondary sector viz., tiny, small and medium industries. In order to carry out these responsibilities the Constitution provided for different types of financial resources. The Union is entrusted with taxes on personal incomes and profits of companies, excise duties and customs duties. In a rapidly developing economy, these are precisely the most productive taxes in the country. In the case of States, land, constitutes an important base of taxation. In a densely populated country like India, the volume of land coming under tax remains almost stationary. Therefore, land, as a source of revenue has been responsible for the inelastic nature of State revenue to a considerable extent. The various taxes on

commodities and services like VAT, state excise duties, duties in electricity rates, motor vehicle tax etc. can be quite productive.

On the other hand, taxation of industrial and commercial properties has been the preserve of the Centre, and tremendous expansion in the base of industrial and commercial property, income and wealth as a result of economic development has been responsible for raising the financial resources of the Centre. At the same time while rapid industrial development boosted excise duty collection, expansion of imports pushed up customs duty collections. This seems to have given buoyancy to the central revenues which is not available to any tax head assignedto the States.

The period since 1951 has witnessed an enormous expansion of financial powers of the Central Government whose dimensions have progressively increased in relation to the combined resources of all State Governments put together. The rate of growth of revenue of the Centre is much faster as compared to that of the State. But then, the Centre has limited functionsto perform while the functions of the States are almost unlimited.

In a way, the Constitution itself is responsible for the existence of a financially strong-Centre and weak-States. Until partition, there was a growing consensus in favour of the corporation tax and export duties to be included in the divisible pool. This was the case made out before the Sircar Committee known as the Expert Committee on Financial Provisions. It was partition which alerted the Constituent Assembly against possible dangers to the unity of India arising from the divisive forces. Its effect is reflected in the strong-Centre theme which runs through the Constitution. The financial provisions of the Constitution clearly reflect this strong-Centre bias.

Sources of Conflict Listed by the States

West Bengal, Jammu and Kashmir, Punjab, Maharashtra and other Southern States are very much agitated over the question of state's autonomy. The Centre State conflict on financial relation is only a part of the overall Centre-State relations and the demand for political and fiscal autonomy. The sources ofconflict as listed by the states are as follows:

(i) The basic assumption of the Constitution in favour of a strong Centre and weak and dependent States is no longer acceptable and States like West Bangal insist that a strong Centre requires equally strong and autonomous States.

(ii) The nature of functions to be performed by the States and the necessity to promote cultural, linguistic and the special conditions of each State require that States should be autonomous.

(iii) Since Independence, the Centre has been gradually extending its functions in such a way as to keep the States completely dependent on it. This process has been encouraged in the first two decades after Independence by the Congress Party which was in power both at the Centre and at the States. The process was further strengthened during the period of Emergency. 1975-77.

(iv) The Centre has been duplicating unnecessarily a number of departments which have no real functions to perform i.e., education, public health, etc., which are all State subjects. There is even a move that these subjects should be put on the concurrent list.

(v) The Center has been interfering in the affairs of the State even in the field of law and order which is purely a State subject by setting up the Central Reserve Police, the Border security Force, the Industrial Security Force, etc.

(vi) The Centre, with too little to do, is entrusted with too much financial resources while the State Governments with so many vital functions to perform are starved of financial resources.

(vii) The financial resources of the Centre are highly elastic, while those of the States are relatively inelastic. Accordingly, the States have been forced to depend upon the Centre to a large extent for their financial requirements.

States' complaint on financial arrangements

As the share of taxes and duties was inadequate to meet the growing revenue, and capital expenditure (especially before the Seventh Plan award) the States had to resort more and more to grants-in-aid and loans from the Centre. There was a growing feeling of uncertainty and indecision, loss of initiative and irritation on the part of the State. The States have become further suspicious of the behaviour and motives of the Centre on the question of rising and sharing of tax revenues with the State.

(i) The Centre has not taken sufficient initiative to impose all the taxes under Article 269 whose proceeds would go to the States.

(ii) The corporation tax was excluded from the scope of sharing with the State from the very beginning. The States feel sore because their contribution to the development of the corporate sector is quite large. For example, they incur considerable expenditure in providing thedirect infrastructure facilities like power, water, raw materials, roads, lands etc. Besides they provide considerable financial incentives for the setting up of industries. It is, therefore, fair and appropriate that the States should have a share in the proceeds of the corporation tax as well.

(iii) The central excise duties have been expanded by including under it a growing number of items previously taxed by the State.

(iv) The divisible pool of excise duties has been limited to basic duties and additional excise duties; the special and auxiliary duties has been kept out of the divisible pool. The rates of additional excise duties which have to be shared with the States were kept low, while raising steadily the rate of excise duties and of special and auxiliary duties which are not to be shared with the states or to be shared only in smaller proportions.

(v) The railway passenger tax whose proceeds were to go to the States was abolished and the Centre fixed arbitrarily a grant in lieu of railway passenger tax. This grant is much less than what the railway passenger tax would have brought to the States.

(vi) The surcharges on income tax were imposed by the Central Government but the proceeds were not shared with the State. The Central Government raised the exemption limit of income tax gradually and reduced the divisible pool. The Central Government, however, did not suffer much loss, as the loss was more than offset by the increase in the surcharge.

(vii) The main source of revenue of the State is the sales tax which accounts for 60 per cent of the States' own tax revenue. The Centre abolished the sales tax by introducing value added tax (VAT). There are also proposals to abolish octroi duties and state excises. Again the Planning Commission has asked the states, to raise resources by enhancing electricity charges.But in the 1978-79 budget, the Centre decided to tap this source also by imposing excise duties on electricity, thus removing the scope for raising electricity tariff by the States (this was given up later). The States are thus left with no proper resources to raise their revenues. By depending upon the Centre, The States are running the risk of losing their economic independence.

While the revenues of the 'States are increasing only gradually, the expenses of the States are increasing at a fast rate. For instance, state plan outlays are increasing with every five year plan. Besides, the various policies of the Central Government (monetary, fiscal and general economic

policies) affect the price situation in the country. Whenever there is a rise in price level, there is naturally a demand for increased D.A. from the Government and semi- government employees. As the Central Government has vast financial resources to meet such demands, it has no problem; but the State Government find it difficult to meet such periodical demands from their staff. It is important therefore, that the Centre consults the State before agreeing to the grant of additional D.A. and also provide resources to the States for this purpose.

Too much dependence of the States on the Centre in the form of grants-in-aid and loans has four serious adverse consequences. Firstly, the Centre could be generous or mean to the different States. Some of the States have felt it humiliating to make frequent visits to New Delhi for funds. A second difficulty is the uncertainty in the budgeting of the States. For instance, in the absence of firm commitments of the Central Government in the matter of grants-in-aid, it is difficult for the State to decide about the various projects of development they have to undertake.A third difficulty is that the States are not able to fulfil the various electroal promises because of inadequacy of financial resources. Finally, most States have resorted to unauthorized overdrafts to finance plan projects.

Regional Imbalances as a Source of Conflict

A serious complaint of some of the States like Kerala and North-East States is about the regional imbalance in industrial development. The complaint is that the Centre has not used its fiscal dominance over States to correct regional imbalance. Nor has the Centre used other instruments at its disposal to narrow down the unevenness in regional development of the backward regions, location of the Central sector projects and even the location of private industries through licensing policy have not created much of an impression on the problem of regional imbalances. In fact, regional disparities have worsened during the plans. When the Planning Commission was set up, it was thought that it would bring about a closer economic integration of the country through rapid increase in national income, higher standards of living of the masses, reduction of inequalities between regions, expansion of agriculture, industry, power and transport. While some degree of economic development has been achieved in every direction, yet from the point of view of balanced regional development, planning may be said to be a dismal failure.

Now, with the acceleration of the planning process the responsibilities and commitments of States, have increased much more than their financial resources. The result was a kind of centralization at the federal level bringing the economic functioning of the State Governments under Central directive and control through the mechanism of grants and loans. Correspondingly, the financial powers of the States are far too meagre in relation to their clearly defined responsibilities. It was really unfortunate that the framers of the Indian constitution could not visualize the financial implications of large-scale programmes of planned development.

The States' demand

The Rajamannar Committee on Centre-State relations (it submitted its report in may 1971) and the West Bengal Memorandum have come out with a string of suggestions and recommendations aiming at autonomy of the states consistent with the integrity of the country. The suggestions of the West Bengal Memorandum, which have revived thecontroversy on the question, are as follows:

(i) The powers and functions of the Centre and the States should be clearly marked and specified, and if necessary the Constitution should be amended suitably.

(ii) The Centre's jurisdiction should be restricted to defence, foreign affairs and foreign trade, communications, currency and economic coordination. All other powers should be exclusively reserved for the States. There should be no interference or control by the Centre in the exercise of its powers by the States.

(iii) The present instrument of Centre's control and interference in the affairs of the States viz., the Indian Administrative and Policy services, the Central Reserve Police, the Border Security Force, the Industrial Security Force etc., should be removed forthwith.

(iv) The Planning commission and the National Development Council which have an important role in planning and economic coordination should be specifically referred to in the Constitution.

(v) 75 per cent of the central revenues should be automatically transferred by the Centre to the divisible pool of the State and the Finance Commission should have power only to recommend the principles for the distribution of this divisible pool among the States.

Other important suggestions made by the West Bengal Memorandum and the Rajamannar Committee on Centre-State relations include equal representation for all States in the Rajya Sabha, the maintenance of the special status of Kashmir in the Indian Union, the retention of English as the link language between the Centre and the States. The right to use mother tongue at all levels, industrial licensing to be vested with the States, except for large companies of national importance, inter-state water disputes to besettled by the Supreme Court, etc.

The problem of Centre-State financialrelations is thus a part of the general and more important problem of Centre-State relations. Let us now consider the problem from the angle of the Central Government.

The Centre's Case

All those, who are in favour of a strong Centre, reject the case of States for more functions and for more financial resources. The West Bengal Memorandum would allow the Centre to perform only three or four functions and leave the rest of the functions to the States. The States would like to have a say, at least indirectly, even in the limited powers and functions of the Centre. For example, the States would like to influence the location and distribution of defence industries, the use of foreign exchange reserves, allocation for the projects of communication and also monetary and fiscal policies, etc. At the same time, Centre should be left with only 25 percent of the revenue raised while 75 per sent of the revenue should go to the States automatically. All these things clearly indicate that the ultimate intention is to have strong states and a weak Centre.

Danger to National Integrity: There is also the fear that some of the States ideologically different from others might like to break away from the federation on some pretext or the other. The DMK ideology at one time, the Khalistan movement in Punjab and Assam agitation-all these have separatist tendencies. The supporters of strong states cite the example of USSR. It was the presence of a common political ideology and strong Central authority which help together the culturally diverse autonomy. When the common political ideology and the strong Central authority disappeared, USSR disintegrated. State autonomy can thus be dangerous to the national integrity. India cannot be allowed to go the USSR way.

The argument that 'State autonomy would liberate creative energies at present inhibited by constant central interference and domination and that state autonomy would promote rapid economic growth is highly questionable in the Indian context. It is the Centre's case that except for communist parties who are wedded to an economic ideology, other regional politicalparties are very parochial in their outlook. Most of them are financed by big business in industry, trade, transport, films, etc. They are corrupt to the core and destinies of these states are controlled by men, among whom some have very close links with smugglers and anti-social elements. These politicians cannot see beyond their noses and want to use state autonomy to further their selfish ends so as to remain in power. In any

case there is no positive correlation between state autonomy and the rapid development of different states.

In this connection it should be emphasized that the States do already enjoy considerable autonomy. They have exclusive control over such key sectors as agriculture, Irrigation and power, administration, social welfare law and other etc. But hot all States have performed these functions properly in any appreciable degree. The advanced states have continued to March ahead and the backward states have remained backward.

The States' complaint about inadequate financial resources and their demand for large taxation powers would sound more reasonable if they had fully exploited the resources they command. They are not only reluctant to tax agricultural incomes but have been abolishing land levies despite the gaping deficits in their budgets. The financial difficulties thus arise in part from their own lack of political courage. It is also an accepted fact State tax administration is hopelessly corrupt and inefficient. Still the Centre has been sympathetic to their pleas for assistance and their share of the divisible pool of Central taxes has progressively increased over the years.

States generally resort to alternative methods for overcoming their budgetary gaps and this way mostly done through grants-in-aid and loans from the Centre before 1967. After 1967, the non-Congress dominated States and even the Congress-controlled States ware in a rebellious mood and they resorted to unauthorised over-drafts on the Reserve Bank,which they insisted should be converted into regular loans. In spite of pressure from the Reserve Bank these over-drafts continued to create inflationary pressure in the economy and constituted serious financial indiscipline.

The inadequacy of financial resources was sought to be made up by the use of Central grants-in-aid. The grants-in-aid were also meant to help backward State to come up to the level of others. Besides grants, the States approach the Centre for loans and advances. The resources transferred from the Centre have accounted for over 45 per cent of the total expenditure of the States.

It is thus clear that the States have become increasingly dependent on the Centre for their expenditure. Such dependence is the natural consequence of the enormous command enjoyed by the Centre over relatively larger and expanding revenue resources. The massive indebtedness of the States had led to a kind of creditor debtor relationship between the Centre and the States breeding a seanse of irresponsibility among the borrowing States. In a sense, the position of dependence on the Centre has suited the States well. It has enabled them to avoid taking unpopular tax measures and to attribute their inefficiency and failure to the Centre.

By 1983, the Centre-State relations were almost at a breaking point-with Khalistan demand for a separate Sikh state, and the Southern States forming a regional council, and so on. It was to settle this problem once and for all that the Central Government appointed the Sarkaria Commission, with comprehensive terms of reference covering constitutional, legislative, financial and administrative aspects of Centre- State relations.

The Sarkaria Commission submitted its report to the Government in January 1988. According to the Commission, it is necessary to preserve the unity and integrity of the country and, accordingly, the Commission has rejected the various suggestions made before it either toreduce the functions of the Centre or modify them. The Commission has rejected the suggestion of transfer of subjects like preventive detention, education, labour and electricity to the state list or concurrent list on the ground that it would disturb the basic scheme of the Constitution. The Commission has called for a process of consultation by the Centre of all concurrent subjects. It has also made a strong case for inter-state councils, for the retention of National Development Council (NDC) and for activisation of zonal councils.

In the financial sphere, the Sarkaria Commission has favoured the amendment of the Constitution to provide for sharing of corporation tax between the Centre and the States but has rejected all other suggestions for enlarging the divisible pool. The Commission has also rejected the suggestion that the devolution of funds from the Centre to the States should be automatic. The Commission has recommended the setting up of expert committees to examine taxation reforms and resource mobilisation, to study in depth the agricultural income tax and to review the loan grant pattern. The Commission has accepted that the present division of functions between the Finance Commissions and the Planning Commission as reasonable and that it should continue. However, it has suggested that the terms of reference of the Finance Commission should be drawn up in consultation with the State Governments. Finally, the Commission has recommended legislation to levy consignment tax and constitutional amendment to enable levy of tax on advertisements and broadcasting.

The Central Government did not accept all the recommendations of the Sarkaria Commission. In any case, he Sarkaria Commission's recommendations are not the last word on the question of Centre-State relations. The question is still wide-open. However, on the question of Centre-State financial relations, the State welcome one recommendation of the Sarkaria Commission viz., the inclusion ofcorporation tax in the divisble pool. This has been a longstanding demand of the State before every Finance Commission till now. The Central Government has not accepted this important recommendation because of its own heavy revenue deficits in the last few years..

However, the suggestion of 10th FC of vertical devolution of all central taxes was accepted and in the light of it 80th amendment (2000) to the constitution was passed. The 11th and 12th F.C. have given awards under which states should share a percentage of all the tax proceeds of the Union. As a result, the conflict between the cetre and the states on the sharing of central taxes has almost disappeared. However, many serious problems still exist such as sharing of river waters. The UPA government has proposed the setting up of a new commission on the lines of Sarkaria Commission.

The Government of India has constituted the 13th Finance Commission under the chairmanship of Mr. Vijay Kelkar to recommend on the devolution of Central taxes to the states for the five year period, 2010-15. The Commission is expected to submit its award to the Central government by October 2009. fertilizer bonds into fiscal accounting and the impact of various other obligations of the Central government on the deficit tragets, the Commission may review the roadmap for fiscal adjustment and suggest a suitable revised roadmap with a view maintaining the gains of fiscal consolidation through 2010 to 2015".

Apart from the usual terms of reference to the Commission. the government of India has mandated the Commission (in July 2008) to come up with a revised road map on fiscal adjustment after reflecting Central Government's off-budget liabilities on oil, food, and fertilizer bonds in the mainstream fiscal accounting. There is a reason for this additional term of reference.

Currently, the bonds issued by the Central Government towards oil, food and fertilizer subsidies are kept off-budget and not counted towards the Centre's fiscal and revenue deficits.As a result, the fiscal and revenue deficits are, at present, understated to the extent that these liabilities in the budget. In his budget speech of 2008-09, the Finance Minister stated the 13th Finance Commission (FC) would be requested to (a) revisit the roadmap for fiscal adjustment, and (b) suggest a revised road map. Accordingly, the 13th FC is now given (in July 2008) the additional term of reference.

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LESSON-18

LOCAL FINANCE

Dear Student,

Till severity-third and seventy-fourth Amendments (in 1993), the Constitution provided for only two-level government-at the Centre and at States with provision for port trusts and cantonment areas etc. The remaining forms of local authorities, though of great variety, were assigned their functions and resources out of the State List. Each State Government assigned these to the local bodies situated within its territorial jurisdiction. There was no guaranteed uniformity in such resource and functions as between local bodies of even the same type. In a Union Territory, local bodies derived their origin, functions and resources from the Centre.

The development of the local self- government has been at a slow pace though it is considered to have many advantages and is supposed to be an integral part of an ideal governmental system. There are some functions which can be best performed by local authorities only. These functions need local attention and adaptation to circumstances. They cannot be standardised at a State or national level. For example, the laying out of parks, street lights, scavenging and similar other services are best left in the hands of the local authorities. They need variations and adjustments from city to city. and within a large city, even from locality to locality and street to street. The local residents can also express their specific difficulties, preferences and the like in these matters. In a meaningful modern governance, it is desirable to accomodate their aspirations and needs. Moreover, local self-governments lay the foundation for sensible and responsible training of the citizens in the matters of political, socialand economic rights and obligations.

Thus, the justification for a system of local governments flows from the theory of fiscal federalism. In a vast country like ours, there are many governmental and collective serviceswhich can be best performed at different levels of Government. The guiding factors in the allocation of services as between different governments should be efficiency, economy and uniformity of treatment. At the level of local self-government, a close link can be established between many governmental services and their financing through taxation etc. It is far easier to base local taxes on a judicious mixture of the benefits received principle, cost-of services principle and the principle of taxable capacity. While, it is quite difficult to determine relative taxable capacity of members of society at a national or a regional level, the task is much less difficult at the local level.

Pattern of Local Bodies

Seventy-third and Seventy-fourth Amendments have made it obligatory for each State to legislate for specified varieties to LocalBodies corresponding to the classification of local areas into villages, rural areas in transition from rural to urban ones and urban areas. For each specified category of Local Bodies, the State Legislature is to assign functions and resources out of the State List. In addition, there is a provision for a State Finance Commission (SFC) to be constituted in eachState every fifth year.

(1) To review the financial position of the Local Authorities.

(2) To make recommendationsGovernment of the State as to

(a) the principles which shouldgovern

(i) the distribution between the State and Local Authorities of the net proceeds of the taxes, duties, tolls and fees leviable by the State, which may be divided between them;

(ii) the allocation between the Local Authorities of their shares of such proceeds;

(iii) the determination of taxes, tolls, duties and fees which may be assigned to, or appropriated by the Local Authorities;

(iv) Grants-in-aid to the Local Authorities from the Consolidated Fund of theState; and

(b) any other matter referred to the Finance Commission by the Government of the State in the interest of sound finance of the Local Authorities.

Village panchayat is the primary unit of local selfgovernment. A village panchayat is generally for one village but may cover more than one village of smaller population. The body is usually an elected one and is therefore, responsible to the local population. Its main task is to meet the local needs of the population. Its functions include judicial services, social and community services and economic services and their list can be quite a long one. For example, community and social services include general vigilance, provision of watchmen, registration of births and deaths, being a general source of information, provision of education and health services and so on. Similarly, economic services include street lighting, scavenging, provision of drinking water and agricultural inputs, building and maintenance of minor irrigation works, drainage, bunding and terracing of lands, local roads, and the like. They may also take up activities in the fields of marketing, co-operative finance, godowns and warehousing, etc.

Nagar Panchayat is meant for an area which is in transition from a rural to an urban character. A Municipal Council/Committee is for a small urban area, while a Municipal Corporation is for a bigger one. The functions and resources of local bodies tend to widen as we move from rural to urban level. All these bodiesare primarily elected ones. In addition, there are notified area committees and cantonments which are, usually manned by nominated persons and primarily subsist on grants from the State or Central Government.

Coming to the urban local bodies, we have the Municipal committees for the towns and smaller cities and municipal corporations for the bigger cities. These bodies are elected ones. Quite often, the State or the Central Government concerned appoints and administrative officer as head of the executive wing of the corporation. It may also provide a number-of experts to a Municipal Corporation so as to contribute to its operational efficiency. A Municipal Corporation has generally more functions to perform than a Municipal Committee. For example, a corporation provides sanitation, water supply, street lighting, scavenging, local roads, drainage, education up to the middle level, and the like. Quite often, it is also entrusted with local transport, medical services including dispensaries and hospitals. In contrast, some local bodies like the port trusts, improvement trusts etc., tend to be specialised local bodies with specially demarcated functions. Their sources of finance are more or less determined by the statues bringing them into existence. Notified area committees are meant for those municipal areas from which sufficient income is not expected on account of predominance of government property, but for which local services are needed anyway, We can, think of cantonments in this connection. These committees usually consist of nominated persons and subsist primarily on grants from the State or Central Government.

Financial Resources and Needs

It should be noted that the responsibilitiesthe local bodies have been growing with the of passage of time, especially in the area of rural economic development Increasing functions imply

increasing need for resource. But unfortunately local bodies face a chronic problem of inadequate resources. This is in the very nature of things. The services to be provided by them are a varied lot and essential tothe life and health of the community. But their powers to raise revenues are limited. To a large extent the State Governments have retained the taxation powers mentioned in the Constitution while, in all fairness, some of the smaller departments should have been reserved for the local authorities. Better still, they should be assigned a specified proportion of some State taxes like sales tax. Moreover, with the development of the economy and increasing awareness on the part of the public, the responsibilities of the local bodies, are mounting up while their revenue resources are not increasing as rapidly. Several new services require huge initial capital outlays which these bodies cannot mobilise on their own. The result is that, just as the States are inherently dependent upon the Centre for financial aid, the local bodies are inherently dependent upon the States.

Local bodies are also notoriously inefficient. They lack the capacity to hire and retain highly paid experts and professionals. Consequently, certain potentially remunerative activities like land developent, generation and distribution of electricity etc. are being entrusted to special bodies created for the purpose.

Position Till 73rd and 74th Amendments

Historically, the financial experience of Local Bodies has not been a happy one and registered a deteriorating position since Independence. Since these local bodies do not have standardised resources of revenue, we can attempt only a general description of their func- tions and resources which are available to them.

Their financial resources may be divided into two categories, tax revenue and non-tax revenue. Non-tax revenue includes grants from the State Governments, earnings from public undertakings like water supply and transport, earnings from certain remunerative activities like leasing out of lands, buildings and plots etc. It also includes fees, fines and payments for certain services.

Tax Revenue

The Scheduled Tax Rates framed under the Government of Indian Act, 1919 containedan exclusive list of taxes to be utilised by or for the local authorities. The Government of India Act, 1935 allocated every local tax to Provincial Governments. The same scheme was in- corporated in our Constitution also whereby the tax resources are shared between the Centre and the states, and it is for the States to hand over sacified tax resources to the local bodies out of their own list. For example, in Gujarat, Maharashtra, Keral, Karnataka, Tamil Nadu and U.P., the entire land revenue goes to local bodies, but not in other States. The tax resources of the local bodies vary from State to State and from one body to the other. There is no standardised list in this connection. And, almost every tax which the local body can impose has a corresponding tax which the State Government can also impose. The local bodies cannot protest if a State Government encroaches upon the field in which local bodies are levying taxes or which is generally expected to be their privilege. Consequently, therefore, the local bodies also imbibe a lack of responsibility and requisiteeffort to improve their administration machinery.

The Taxation Enquiry Commission noted this state of affairs and thought that it needed remedying by assigning a definite tax field consisting of six areas to the local bodies.

(1) Taxes of Advertisements. It can be a very lucrative source of revenue for many local bodies, depending upon their size and location. Places of tourist and religious gatherings, and towns and villages located on heavy traffic junctions and along national highways canexploit this source.

(2) Octroi and Terminal Taxes. Octroi is a levy on goods which enter a municipal areafor consumption, sale or use in production. A terminal tax, on the other hand, is a tax on goods which are in transit through the area. It would be more appropriate to call it a transit tax on goods. While there

may be a provision for refund and remission of octroi in certain cases, terminal taxation does not admit of such exceptions. Octroi owes its origin in India to a regulation by the East India Company in 1805. At the end ofJune 1993, it was being levied in nine States. The Taxation Enquiry Commission was aware of its socio-economic drawbacks. But it happened to be in the State List and the Commission recommended its reservation for local bodies with necessary improvements in its rate schedule and administration.

(3) Taxes on Lands and Buildings. These taxes are both in the nature of general taxes and service charges. For example, some municipal bodies charge for street lighting, scavenging, water supply etc. on the basis of houses and other property situated in the locality and the valuation thereof. Another cases, a straight tax is imposed, which may sometimes be converted into a family tax for adminstrative convenience. For example, a tax on a house property is determined on the basis of its annual rental value on the assumption that it is a good, indication of the relative paying capacity of the owner. The rates of taxation are usually progressive.

In some cases, where the municipal services enchance the value of taxed properties, the authorities might decide to impose a betterment levy. This is usually in additional to the enhancement of the annual tax flowing from its increased rental value. It is often levied to meet the cost of the project/projects which caused, this unearned increment. Another form of taxes on lands and buildings is that on transfer of ownership. However, though potentially a lucrative source of revenue, property taxation poses a number of problems like those of valuation; and local bodies are mostly not well equipped to handle them with integrity and efficiency. It may also be recalled here that government property is exempt from municipaltaxation.

(4) Taxes on Vehicles. The Commission also recommended that taxes on vehicles other than those on motor vehicles should be reserved for the local bodies. This category includes taxes on hand-carts, animal, driven carts and other vehicles. Most local bodies are in fact, imposing these taxes and in some cases, they are alsobeing assigned a share of the Motor Vehicles Tax. However, the potential revenue from this source is highly limited.

(5) Taxes on Animals and Boats. Taxeson animals and boats was another category which the Taxation Enquiry Commission wanted to be reserved for the local bodies. However, the village panchayats usually find it difficult to levy a tax on animals because of its unpopularity. In urban municipal areas, of course, this tax is not met with any opposition. But shortage of space keeps the number of taxed animals low and, therefore, here also this tax does not bring a good amount of income.

(6) Tax on Professions. The Commission also recommended that taxes onprofessions, trades, callings and employments should be reserved for the local bodies. These taxes are basically for the State Government and it is for them to assign them to the local authorities. The maximum limit of professions tax was fixed at Rs. 250 (revised to Rs. 2,500 in 1989) per person p.a. On the whole, however, the total tax collections from this source are limited. In general, this tax, if imposed, should not be on a uniform basis since that would make it regressive. Instead, it should be related to the income of the assessee subject to a limit laid down in the Constitution.

Other Taxes. There are other sources of tax revenue also for the local bodies. They include theatre tax which might be levied on places of entertainment on the basis of a show. Different theatres maybe subjected to a differential rate depending upon their earning potential. Such a tax, generally, is to low rate and can be easily borne by the theatre owners. Some municipalities levy a teh-bazari on local sellers who do not have regular shops, or on those who come to weekly bazars as sellers. Teh-bazari rates are sufficiently low for those who use pavements to sell their wares, but they are slightly higher and are charged on monthly or annual basis from those who have push carts.

Non-tax revenue

The non-tax revenues of local bodieslacks uniformity as does the tax revenue. This category includes grants from the State Governments earning from public undertakings like water supply and transport, earnings from certain remunerative activities like leasing of lands, buildings and plots etc. It also include fees, fines and payments for certain services. There are, however, some important sources of non-tax revenue which are available only to bigger municipalities or corporations. Mention may be made of the electricity generation and distribution and transport. But it is found that these undertakings are mostly run inefficienctly and become a liability. As a result, their adoption by municipalities is not encouraged. Some municipal authorities have set up remunerative projects cells. They are undertaking various commercial ventures, like building markets, flats and developing land plots and leasing them out. In towns and cities, this can be a very good source of revenue, but it is still not exploited widely.

States given grants (both general and specific purpose) to local bodies to meet their revenue gaps, but these grants are generally on an ad hoc (though annual) basis, with all their attendent defects. The result is that the local bodies just cannot plan-an efficient utilisation of their resources on a long-term basis and adoption of several schemes is not found feasible. The grants are apt to be utilised in a wasteful manner and the local bodies develop a general tendency to be lethargic in raising their own resources or spending them economically. The situation is highly anomalous when we note that on the one hand, the State Governments are not in a position to force the local bodies to step up their revenue collection (Zakaria Committee), and on the other local bodies require the approval of the State Governments for every new tax or revision in the rates of an old one.

The Taxation Enquiry Commission, therefore, recommended that the basic grants, should be decided on objective principles involving the population. area, budgetary resources and requirements of the local bodiesunder consideration. They should be guaranteed on a long-term basis to enable the local bodies plan their affairs systematically. These basic grants should be adequate for their normal requirements. In addition specific grants should also be given on the merit of each proposal. The problem of grants has attracted the attention of numerous committees. The National Institute of Urban Affairs found in a study conducted by it for the Ninth Finance Commission, that in India grants constituted around 16.2% of the total municipal finances. From Sixth to Ninth Finance Commissions, all made specific-purpose grants that directly go to the services provided by the municipal bodies. Zakaria Committee recommended an inflation index grant for each municipal body with the basic amount determined on the basis of the size of population. Specific purpose grants were to be in addition to the general purpose ones.

Another non-tax income of the local bodies consists of loans and advances. A local body may borrow from the State Government or if it is situated in a Union Territory, from the Central Government Such loans are taken when in normal course, grants are inadequate to meet the expenditure requirements of a local body. These loans are of two types.

Firstly, they maybe in the form of ways and means advances. The local authority, like any other institute, is likely to find that at times, the inflow of revenue receipts does not match the outflow of payments and there are temporary deficits. Ways and mean & advances are expected to help the local body meet this temporary gap.

Secondly, the local body might be interested in taking up a project with a huge capital cost. Such a project may be of a type which is expected to generate an income for the local body. Depending upon the expected revenue from the project, the State (or the Central) Government may advance a loan to meet full cost of the project; or a part of the cost may be advanced as a grant and a part as a loan. But it should be remembered that, in the very nature ofthings, some local authorities like port trusts and improvement trusts are in greater need of loan funds. A number of their activities are likely to

create self-paying assets, for which, therefore, it is not thought desirable to levy local taxes. In- stead, it is though better to finance them through borrowings which again may come from the State (or Central) Government, or the local authority may borrow from the market Such loans may even be obtained from specialised financial institution. Generally, recourse to market or the financial institutions for funding of projects entails heavier interest cost.

A recent phenomenon emerging on the Indian scene is that of some local bodies opting for large scale market borrowings and having them rated by credit rating agencies. Examples are of Ahmedabad, Pune and Bangalore.

Octroi

Now, a word about octroi. The indirect Taxation Enquiry Committee. 1977 (Jha Committee) lists a number of drawbacks of octroi; It was found harmful and undesirable by every Committee that examined its working in the past, whether set up by a State Government or by the Centre. Mention may be made of the Masani Committee, the Kesar Committee, the Transport Development Council, Committee on Transport Policy and Co-ordination and the Rural Urban Relationship Committee, all of which were in favour of abolishing octroi. The Pandey Committee on National Transport (1980) suggested that it may be abolished even in a phased manner. Being generally specific in nature, octroi is regressive in its incidence. It is also administratively cumbersome and vexatious especially on account of the wide discretionary powers enjoyed by the municipal tax officials. This breeds corruption and tax evasion of high order. The cost of collection of octroi is also very high. A Study by NCAER estimated that the cost of collection of octroi was 83% of the revenue realized. The Jha Committee found that Octroi had the same type of cost-cascading effect as the sales tax, and this encouraged concentration of industries in urban areas so as to escape it.Moreover, this levy imposes a heavy economic cost on the society by obstructing quick transportation of goods. For example, the Kesar Committee found that on the Mangalore- Bangalore route of 400 km a motor vehicle had to spend 45 hours 10 minutes out of which 36 hours were on account of detentions. According to one estimate the detention of trucks at checkposts involved a fuel loss of 8.75 lakh kilolitres p.a. in 1980 amounting to a huge loss in foreign exchange. According to another estimate, loss of diesel at octroi checkpost was put at around 10% of total diesel requirements of the transport system. This is, in addition to the time wasted at checkposts. If, for example, there is a saving of upto 15% in the turnaround time of trucks, it would mean a phenomenal increase in national resources and foreign exchange. Removal of octroi would have the effect of reducing freight cost also. JHA Committee, therefore, strongly recommended the abolition of octroi and suggested various possible substitutes; but; at the same time, it insisted that its main emphasis was on getting octroi abolished rather than on any particular alternative to replace it if need be, the levy could be abolished in stages. There is a general agreement that octroi is an extremely bad tax. It creates artificial barriers for trade and commerce within the national economy. This stand is supported by the findings of a large number of enquiry committees and studies.

But the problem is to have a viable alternative source of revenue. The local bodies, with their meagre resources are not ready to abolish it because they derive between 23 to 46 per cent of their revenue from this source. All India Council of Mayors in 1986 promised to abolish it, provided the local bodies were compensated through a share in levies like excise, entertainment tax and motor vehicles tax. The State Governments are reluctant to abolish it because they would have to enhance their assistance to local bodies. Punjab and Haryana are committed to its abolition but have not actually done so. All States promised to abolishoctroi in 1987 but even now, it is being levied by several States. Of course, some States did abolish it and compensated the local bodies through other means. Octroi in four Union Teritories was abolished only in February 1993 entailing a revenue loss of Rs, 40 crore. Rajasthan abolished it by replacing it with a surcharge of 12% on sales tax. Madhya Pradesh Government transferred property tax to local bodies when it abolished octroi in 1977. Similarly, U.P.

Government levied a surcharge on sales tax in 1991 and abolished octroi. While States insist that Centre should provide them compensatory assistance, the Centre insists that the States should locate alternative sources of revenue of their own. Meanwhile, some states have not only enhanced octroi rates but also extended it to hitherto exempted items. The problem has assumed a sharper edge with the levy of path kar (a transit tax on trucks and not good, passing through a State, including halting charges even in the case of breakdown and necessary repairs). It is a highly burdensome and retrograde tax particularly when a truck passes through a number of States. The rates of path kar are heavy and near extortionist. At present, several States and levying it and more are planning to do so. Octroi, path kar or any other similar levy cannot be justified in the context of national, economic interest. These levies come in the way of effective implementation of a policy aimed at a low-cost and integrated Indian economy. The remedy lies in both the Centre and States realising their responsibilities in this context. Economic evolution demands phasing out of such levies and transferring of some other from local bodies to States and from States to the Centre. Consequently, the flow of resources from top to bottom has to be augmented adequately and in an assured manner.

Municipal/State Finance Commission

Persistent poor financial condition of local bodies never attracted sufficient attention till 73rd and 74th Amendments of the Constitution. The published figures of the last study of panchayat finances relate to only 1976-77, when their per capita resources averaged Rs. 1.75. This figure, as projected to 1992-93, reached Rs.54.87, thereby giving an approximate total of Rs. 3500 crore for entire rural India. In terms of 73rd Amendment of the Constitution several State functions are to be transferred to panchayats. This would enhance the expectations of the people and necessitate much larger transfer to local bodies.

For long, it was forcefully suggested by many that the chronic problem of local finance can be solved only through having an institution of municipal finance Commissions in line with the Finance commission provided for the States. These municipal finance commissions should make recommendations so as to ensure a steady and adequate flow or resources to the local bodies through grants and loans (in addition) to the assigned heads of revenue and shared taxes). These commissions should be appointed in each State well before the appointment of the Finance Commission by the Centre, and their recommendations should be made a part of the State proposals. This is meant to impart a stability to the financial resources of local bodies so that they also try to be more responsive to the questions of the economy and administrative efficiency.

The Constitutional Amendments in 1993 introduced the institution of State Finance Commission (SFC) for each State on an obligatory basis for revieweing the financial position of the local authorities and making appropriate recommendations. However, in the Constitution, will be there is a Clear cut listing of taxes which must be or which may be shared by the Centre with States; there is no such provision to govern the working of the SPCs. It appears that each Stare bas the authority to decide the taxes which have to be shared or which may be shared with local authorities. Also, such a SFC is to decide on its own the principles on which grants-in-aid from the State to local authorities are to be made. This type of non-uniformity as between different SFCs is more suitable to Indian conditions of widespread inter-Stateeconomic disparities, problems of resource availability and other connected issues. At the same time, it follows that the benefits of SFCs would depend upon the manner in which their terms of reference are drawn up and the manner in which they actually carry out their task. The overall situation can certainly be expected to improve, though it cannot be expected to become an ideal one.

Concluding Remarks

The fundamental problem of the local bodies is their inadequate resource position. This is compounded by their limited and unremunerative tax resources accompanied by niggardly grants from the States. The mounting problem of inflationary price rise is also there. Therefore, the institution of SFCs should help them out. One suggestion is that, while the local bodies should continue to enjoy their existing sources of revenue, the Constitution should be amended to assign them a given percentage of revenue from sales taxes, additional duties ofexcise in lieu of sales tax, the State excise duties and the States share in the Union excise duties; This would, also take care, to a large extent, of the perpetual problem of their increasing expenses on account of inflationary price rise. This way, the local bodies will also be able to enjoy the revenue buoyancy of expanding economic activities. The task of the State Finance Commission of a State will be mainly confined to recommending grants and determining the shares of individual local bodies within their collective share. Such a course can be accompanied with an outright abolition of the octroi/terminal taxes. The amount of resource relief, which the local bodies will enjoy in this manner, will be quite substantial. For example, the resources flowing from States to local bodies can at once increase four to five times if they get a mere 10% of State sales tax and 5% of States' share in Central taxes. Moreover, they would be able to automatically benefit from the buoyancy of resource availability to State governments.