

# **PUBLIC ECONOMICS**

**Online Lecture Notes**

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# **UNIT- 1**

## **RATIONALE FOR PUBLIC ECONOMICS**

## **Lesson-1**

**Public economics** is the study of government policy through the lens of economic efficiency and equity. At its most basic level, public economics provides a framework for thinking about whether or not the government should participate in economics markets and to what extent its role should be. In order to do so, microeconomic theory is utilized to assess whether the private market is likely to provide efficient outcomes in the absence of governmental interference. Inherently, this study involves the analysis of government taxation and expenditures. This subject encompasses a host of topics including market failures, externalities, and the creation and implementation of government policy. Public economics builds on the theory of welfare economics and is ultimately used as a tool to improve social welfare.

### **SOCIAL CONTRACT THEORY OF HOBBS AND LOCKE'S**

The social contract theory which dominated the European political thought in the eighteenth century has played a very important part in the development of the modern political theory and practice of all the speculative theories, the social contract theory is the most important. It is one of the oldest theories. This theory came into being as a result of reaction against the theory of Divine origin. Example of this theory is available in many countries both the east and the west.

According to this theory, the state was not created by God on the contrary under the compulsion of circumstances, people contracted with the rulers and as a result the state was organized.

#### **Views of Thomas Hobbs (1588-1679)**

Thomas Hobbs, once a tutor to Charles II of England was a great English Philosopher. He was born in 1588 and lived in the stirring times of the great Rebellion and Commonwealth. He witnessed the civil war (1642-49) in England and was deeply affected by its miseries. He was so much shocked by the after effects of the civil war that he concluded that the salvation of the country lay in the absolute system of the Govt. He used the doctrine of social contract for the purpose. This is reason why he sought to justify the absolute power of the sovereign in his book "Leviathan". He never had a mind to propound a theory regarding the origin of the state. His Sole object was to define the deppotion of the staurt and support despotic monarchy.

## **Hobbe's Description of the State of Nature**

According to Hobbs, the state of nature was the state of sovereignty and human as he says, was "Solitary poor, nasty, British and short". To Hobbes the state of nature was a state of war; a war of all against all and state in which nothing can be just and force and fraud were two cardinal virtues. So that in the nature of man, says Hobbs, "We find three principles of quarrel firstly competition secondly difference thirdly glory. The first makes the man invasle for gain, the second for safety and third for Reputation".

## **Hobbs Contract and its Implication**

According to Hobbs, since the ruler is not the part of this contract, he cannot be compelled to act according to the condition of the contract. In this way, this contract of which Hobbs is the exponent enables the ruler to become a despot. In addition to this, the following are other highlights of Hobbes social contract.

1. It is a social contract and so that the sovereign is not a party to it. People authorized and gave up right of governing themselves to the sovereign who came into being as a result of the social contract.
2. People cannot break the ties of the contract according to their will because it is based on the sentiment of fear to their will because it is based on the sentiment of fear people entered into the contract for entering their lives and safeguarding their interests. If people break the ties of the contract and act according to their will, they will degenerate into their primitive stage and their life will be in peril.
3. According to Hobbes if man by nature is not a social animal and so nourishes himself anti-social feeling which he suppressed only by absolute monarchy and so it become essential for the sovereign to become a despot. Consequently his right would be numerous and supreme.
4. Sovereignty is indivisible, this is to say, it cannot be divided.
5. The sovereign is the main source of law and his commands are law.
6. The sovereign possesses, this is to say, the authority to impart justice and deals with the mutual disputes.

7. This contract is both social and political because it establishes the society and the govt. at the same time.

The condition of contract clearly indicates that Hobbes supported the establishment of despotic monarchy and demanded the unlimited authority of sovereign. "If the sovereign command of man (though justly condemned) to kill would or main himself; or not to resist those assault him, or to abstain from the use of food, air, medicine or any other thing, without which he cannot live, yet hath that man the liberty to disobey".

Thus, it is quite clear that Hobbes allows the individual to disobey the commands of the sovereign only when his life is in peril, otherwise he expects the individual to obey the sovereign under every condition.

### **Importance Of Hobbes's View**

No doubt Hobbes's views are severely criticized by some political thinkers, yet their merits cannot be ignored and overlooked. Hobbes was the first Englishman who present a logical system of political philosophy. His theory became, from the moment of its appearance, the centre of controversy and had an enormous influme throughout western Europe.

1. Hobbes tried to prove this fact that lawlessness and monarchy can be put down by despotic monarchy and it is undoubtedly true.
2. It was Hobbes who first of all presented before us the concept of legal sovereign. His concept may be faulty. It may enable a ruler to become a crud monarch or despot, yet still it is realized that legally speaking as a sovereign should rule supreme and path should not be hindered by any one.
3. Hobbes's by making a clear distinction between natural and civil laws laid the foundation for the system of analytical, jurisprudence that was elaborated by Benham and Austin.

**Conclusion:** Thus the first modern philosopher to articulate a detailed contract theory was Thomas Hobbes. According to Hobbes, the lives of individuals in the state of nature were "Solitary, Poor, Nasty, Brutish and Short" a state in which self-interest and the absence of rights

and contracts prevented the social or society. Life was 'anarchic'. This state of nature is followed by the social contract.

The social contract was an occurrence during which individuals came together and ceded some of their individual rights so that others would cede theirs. This resulted in the establishment of the state, a sovereign entity like the individuals now under its rule used to be, which would create laws to regulate social interactions. Human life was thus no longer, "A war of all against all". But, the state system, which grew out of the social contract, was also anarchic with respect to each other. Just as the individuals in the state of nature had been sovereigns and thus guided by self interest in competition with each other. Just like the state of nature, states were thus bound to be in conflict because there was no sovereign over and above the state capable of imposing some system such as social contract laws on everyone by force.

### **John Locke's Contribution In Social Contract Theory**

John Locke, another English Political Philosopher, belonged to seventeenth century. He was an ardent advocate of constitutional monarchy in England. He expressed his view in his book "Two Treaties of civil government" published in 1689. In his book, he attempted to justify the glorious revolution (1688) and deposition of James II. As a matter of fact this theory was a justification of the glorious Revolution (1688) and the deposition of James II He was very aptly asserted that parliament reserved the right to dethrone the king. If he disobeyed the commands and overlooked or ignored the claims of public will.

In this way, he justified the deposition of James II and supported the co-ordination of king William and Queen Mary. This is the reason why John has called this contract social and political. The historical background of Hobbes and Locke's theories is very similar. "Hobbes impressed by the series of the Great Rebellion" says professor Gilchrist, "argued on the basis of the social contract for a system of absolute monarchy. Locke on the same basis tried to justify the deposition of James II and establishment of constitutional govt.

Like Hobbes, John Locke also begins his essay with the description of the state of nature. But his views are different from those of Hobbes. Locke descriptions of the state nature is different from what of Hobbes.

## **John Locke's Social Contract**

John Locke's conception of the social contract differed from Hobbes in several fundamental ways, retaining only the central notion that persons in a state of nature would be bound morally by the law of nature, not to harm each other in their lives or possessions, but without government to defend them against those seeking to injure or enslave them, people would have no security in their rights and would live in fear.

John Locke deals with social contracts i.e. social and governmental. Social contract leads to the formation of civil society and the governmental contract puts the primitive state to the end. In the word of John Locke, "The state of nature has a law of nature to govern it which obliges everyone; and reason, which is that law which reaches all mankind that begin all equal and independent, no one ought to harm other in his life, liberty and possessions". Thus, "Locke's state of nature with its sequence of recognized rights is already political society".

Society is organized for protecting human life and safeguarding his property and freedom. Man has authorized and given up not all of his rights to society but only that right of health, liberty or possession. Anybody who disobeys is liable to be punished by society. For this purpose, society transfer some of its powers to a selected few persons who form the govt. Such type of govt. established through a govt. contract. The ruler and the people entered into the contract. Locke argued that individuals would agree to form a state that would provide a "neutral judge" acting to protect the lives, liberty and property of those who lived within it.

Hobbes argued for near absolute authority. Locke argued for inviolate freedom under law in his second treatise of government. Locke argued that government's legitimacy comes from the citizens' delegation to the government of their right of self-defense. Thus the government acts as an impartial, objective agent of that self-defense, rather than each man acting as his own judge, jury and executioner the condition in the state of nature. In this view, government derives its "just powers from the consent of the government".

## **PUBLIC GOOD**

In economics, a public good is a good that is both non-excludable and non-rivalrous in that individuals cannot be effectively excluded from use and where use by one individual does not reduce availability to others. Examples of public goods include fresh air, knowledge, lighthouses, national defense, flood control systems and street lighting. Public goods that are available everywhere are sometimes referred to as global public goods.

Many public goods may at times be subject to excessive use resulting in negative externalities affecting all users; for example air pollution and traffic congestion. Public goods problems are often closely related to the "free-rider" problem, in which people not paying for the good may continue to access it. Thus, the good may be under-produced, overused or degraded. Public goods may also become subject to restrictions on access and may then be considered to be club goods or private goods; exclusion mechanisms include copyright, patents, congestion pricing, and pay television.

There is a good deal of debate and literature on how to measure the significance of public goods problems in an economy, and to identify the best remedies.

Paul A. Samuelson is usually credited as the first economist to develop the theory of public goods. In his classic 1954 paper *The Pure Theory of Public Expenditure*, he defined a public good, or as he called it in the paper a "collective consumption good", as follows:

...[goods] which all enjoy in common in the sense that each individual's consumption of such a good leads to no subtractions from any other individual's consumption of that good...

This is the property that has become known as non-rivalry. In addition a pure public good exhibits a second property called non-excludability: that is, it is impossible to exclude any individuals from consuming the good.

The opposite of a public good is a private good, which does not possess these properties. A loaf of bread, for example, is a private good: its owner can exclude others from using it, and once it has been consumed, it cannot be used again.

A good which is rivalrous but non-excludable is sometimes called a common-pool resource. Such goods raise similar issues to public goods: the mirror to the public goods problem for this case is sometimes called the tragedy of the commons. For example, it is so difficult to enforce restrictions on deep sea fishing that the world's fish stocks can be seen as a non-excludable resource, but one which is finite and diminishing.

	<i>Excludable</i>	<i>Non-excludable</i>
<i>Rivalrous</i>	<b>Private goods</b> clothing, cars, personal electronics	<b>Common goods</b> fish stocks, timber, coal, national health service
<i>Non-rivalrous</i>	<b>Club goods</b> cinemas, private parks, satellite television	<b>Public goods</b> free-to-air television, air, national defense

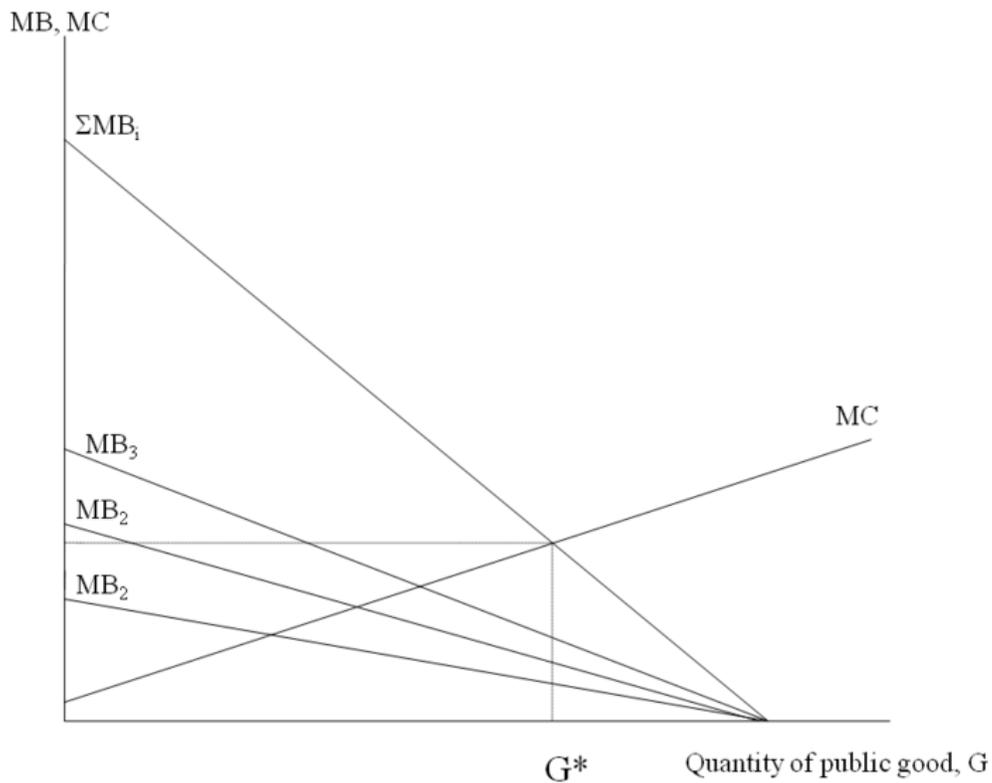
The definition of non-excludability states that it is impossible to exclude individuals from consumption. Technology now allows radio or TV broadcasts to be encrypted such that persons without a special decoder are excluded from the broadcast. Many forms of information goods have characteristics of public goods. For example, a poem can be read by many people without reducing the consumption of that good by others; in this sense, it is non-rivalrous. Similarly, the information in most patents can be used by any party without reducing consumption of that good by others. Creative works may be excludable in some circumstances, however: the individual who wrote the poem may decline to share it with others by not publishing it. Copyrights and patents both encourage the creation of such non-rival goods by providing temporary monopolies, or, in the terminology of public goods, providing a legal mechanism to enforce excludability for a limited period of time. For public goods, the "lost revenue" of the producer of the good is not part of the definition: a public good is a good whose consumption does not reduce any other's consumption of that good.

Debate has been generated among economists whether such a category of "public goods" exists. Steven Shavell has suggested the following:

...when professional economists talk about public goods they do not mean that there are a general category of goods that share the same economic characteristics, manifest the same dysfunctions, and that may thus benefit from pretty similar corrective solutions...there is merely an infinite series of particular problems (some of overproduction, some of underproduction, and so on), each with a particular solution that cannot be deduced from the theory, but that instead would depend on local empirical factors.

The economic concept of public goods should not be confused with the expression "the public good", which is usually an application of a collective ethical notion of "the good" in political decision-making. Another common confusion is that public goods are goods provided by the public sector. Although it is often the case that government is involved in producing public goods, this is not necessarily the case. Public goods may be naturally available. They may be produced by private individuals and firms, by non-state collective action, or they may not be produced at all.

The theoretical concept of public goods does not distinguish with regard to the geographical region in which a good may be produced or consumed. However, some theorists (such as IngeKaul) use the term 'global public good' for public goods which is non-rival and non-excludable throughout the whole world, as opposed to a public good which exists in just one national area. Knowledge has been held to be an example of a global public good, but also as a commons, the Knowledge commons.



Aggregate demand ( $\Sigma MB$ ) is the sum of individual demands ( $MB_i$ )

Graphically, non-rivalry means that if each of several individuals has a demand curve for a public good, then the individual demand curves are summed vertically to get the aggregate demand curve for the public good. This is in contrast to the procedure for deriving the aggregate demand for a private good, where individual demands are summed horizontally.

### **Social goods**

Social goods are defined as public goods that could be delivered as private goods, but are usually delivered by the government for various reasons, including social policy, and funded via public funds like taxes.

Examples

Common examples of public goods include: defense, public fireworks, lighthouses, clean air and other environmental goods, and information goods, such as software development, authorship, and invention. Some goods (such as orphan drugs) require special governmental incentives to be produced, but can't be classified as public goods since they don't fulfill the above requirements (Non-excludable and non-rivalrous.) Law enforcement, streets, libraries, museums, and education are commonly misclassified as public goods, but they are technically classified in economic terms as quasi-public goods because excludability is possible, but they do still fit some of the characteristics of public goods.

The provision of a lighthouse has often been used as the standard example of a public good, since it is difficult to exclude ships from using its services. No ship's use detracts from that of others, but since most of the benefit of a lighthouse accrues to ships using particular ports, lighthouse maintenance fees can often profitably be bundled with port fees (Ronald Coase, *The Lighthouse in Economics* 1974). This has been sufficient to fund actual lighthouses.

Technological progress can create new public goods. The most simple examples are street lights, which are relatively recent inventions (by historical standards). One person's enjoyment of them does not detract from other persons' enjoyment, and it currently would be prohibitively expensive to charge individuals separately for the amount of light they presumably use. On the other hand, a public good's status may change over time. Technological progress can significantly impact excludability of traditional public goods: encryption allows broadcasters to sell individual access to their programming. The costs for electronic road pricing have fallen dramatically, paving the way for detailed billing based on actual use.

There is some question as to whether defense is a public good. Murray Rothbard argues, "'national defense' is surely not an absolute good with only one unit of supply. It consists of specific resources committed in certain definite and concrete way and these resources are

necessarily scarce. A ring of defense bases around New York, for example, cuts down the amount possibly available around San Francisco." Jeffrey Rogers Hummel and Don Lavoie note, "Americans in Alaska and Hawaii could very easily be excluded from the U.S. government's defense perimeter, and doing so might enhance the military value of at least conventional U.S. forces to Americans in the other forty-eight states. But, in general, an additional ICBM in the U.S. arsenal can simultaneously protect everyone within the country without diminishing its services."

Moreover, public goods are not restricted to the human species. Indeed, it is one aspect of the study of cooperation in biology.

### **Free rider problem**

Public goods provide a very important example of market failure, in which market-like behavior of individual gain-seeking does not produce efficient results. The production of public goods results in positive externalities which are not remunerated. If private organizations don't reap all the benefits of a public good which they have produced, their incentives to produce it voluntarily might be insufficient. Consumers can take advantage of public goods without contributing sufficiently to their creation. This is called the free rider problem, or occasionally, the "easy rider problem" (because consumers' contributions will be small but non-zero). If too many consumers decide to 'free-ride', private costs exceed private benefits and the incentive to provide the good or service through the market disappears. The market thus fails to provide a good or service for which there is a need.

The free rider problem depends on a conception of the human being as homo economicus: purely rational and also purely selfish—extremely individualistic, considering only those benefits and costs that directly affect him or her. Public goods give such a person an incentive to be a free rider.

For example, consider national defense, a standard example of a pure public good. Suppose homo economicus thinks about exerting some extra effort to defend the nation. The benefits to the individual of this effort would be very low, since the benefits would be distributed among all

of the millions of other people in the country. There is also a very high possibility that he or she could get injured or killed during the course of his or her military service.

On the other hand, the free rider knows that he or she cannot be excluded from the benefits of national defense, regardless of whether he or she contributes to it. There is also no way that these benefits can be split up and distributed as individual parcels to people. The free rider would not voluntarily exert any extra effort, unless there is some inherent pleasure or material reward for doing so (for example, money paid by the government, as with an all-volunteer army or mercenaries). The free riding problem is even more complicated than it was thought to be until recently. Any time non-excludability results in failure to pay the true marginal value (often called the "demand revelation problem"), it will also result in failure to generate proper income levels, since households will not give up valuable leisure if they cannot individually increment a good. This implies that, for public goods without strong special interest support, under-provision is likely since benefit-cost analyses are being conducted at the wrong income levels, and all of the ungenerated income would have been spent on the public good, apart from general equilibrium considerations.

In the case of information goods, an inventor of a new product may benefit all of society, but hardly anyone is willing to pay for the invention if they can benefit from it for free. In the case of an information good, however, because of its characteristics of non-excludability and also because of almost zero reproduction costs, commoditization is difficult and not always efficient even from a neoclassical economic point of view.

### **Assurance contract**

An assurance contract is a contract in which participants make a binding pledge to contribute to building a public good, contingent on a quorum of a predetermined size being reached. Otherwise the good is not provided and any monetary contributions are refunded.

A dominant assurance contract is a variation in which an entrepreneur creates the contract and refunds the initial pledge plus an additional sum of money if the quorum is not reached. (The entrepreneur profits by collecting a fee if the quorum is reached and the good is provided.) In

game-theoretic terms this makes pledging to build the public good a dominant strategy: the best move is to pledge to the contract regardless of the actions of others.

### **Coasian solution**

A Coasian solution, named for the economist Ronald Coase, proposes that potential beneficiaries of a public good can negotiate to pool their resources and create it, based on each party's self-interested willingness to pay. His treatise, "The Problem of Social Cost" (1960), argued that if the transaction costs between potential beneficiaries of a public good are low—that it is easy for potential beneficiaries to find each other and organize a pooling their resources based upon the good's value to each of them—that public goods could be produced without government action.

Much later, Coase himself wrote that while what had become known as the Coase Theorem had explored the implications of zero transaction costs, he had actually intended to use this construct as a stepping-stone to understand the real world of positive transaction costs, corporations, legal systems and government actions.

, . . . I examined what would happen in a world in which transaction costs were assumed to be zero. My aim in doing so was not to describe what life would be like in such a world but to provide a simple setting in which to develop the analysis and, what was even more important, to make clear the fundamental role which transaction costs do, and should, play in the fashioning of the institutions which make up the economic system and the world of zero transaction costs has often been described as a Coasian world. Nothing could be further from the truth. It is the world of modern economic theory, one which I was hoping to persuade economists to leave. What I did in "The Problem of Social Cost" was simply to shed light on some of its properties. I argued in such a world the allocation of resources would be independent of the legal position, a result which Stigler dubbed the "Coase theorem." . . .

Thus, while Coase himself appears to have considered the "Coase theorem" and Coasian solutions as simplified constructs to ultimately consider the real 20th-century world of governments and laws and corporations, these concepts have become attached to a world where transaction costs were much lower, and government intervention would unquestionably be less necessary.

A minor alternative, especially for information goods, is for the producer to refuse to release a good to the public until payment to cover costs is met. Author Stephen King, for instance, authored chapters of a new novel downloadable for free on his website while stating that he would not release subsequent chapters unless a certain amount of money was raised. Sometimes dubbed holding for ransom, this method of public goods production is a modern application of the street performer protocol for public goods production. Unlike assurance contracts, its success relies largely on social norms to ensure (to some extent) that the threshold is reached and partial contributions are not wasted.

One of the purest Coasian solutions today is the new phenomenon of Internet crowd funding. Here rules are enforced by computer algorithms and legal contracts as well as social pressure. For example, on the Kick starter site, each funder authorizes a credit card purchase to buy a new product or receive other promised benefits, but no money changes hands until the funding goal is met. Because automation and the Internet so reduce the transaction costs for pooling resources, project goals of only a few hundred dollars are frequently crowd funded, far below the costs of soliciting traditional investors. Other crowd funded projects have raised over a million dollars, like the Arkyd-100 space satellite telescope funded on Kick starter in June 2013. It would seem to be a clear instance of a Coase solution when a public good that always required government sponsorship in the 20th century can be efficiently organized from 18000 individuals' self-interest (including rewards such as an orbital "selfie", and five minutes of observation time donated in their name to find potential killer asteroids).

### **Government provision**

If voluntary provision of public goods will not work, then the obvious solution is making their provision involuntary. This saves each of us from our own tendency to be a free rider, while also assuring us that no one else will be allowed to free ride. One frequently proposed solution to the problem is for governments or states to impose taxation to fund the production of public goods. This does not actually solve the theoretical problem because good government is itself a public good. Thus it is difficult to ensure the government has an incentive to provide the optimum amount even if it were possible for the government to determine precisely what amount would be optimum. These issues are studied by public choice theory and public finance.

Sometimes the government provides public goods using "unfunded mandates". An example is the requirement that every car be fit with a catalytic converter. This may be executed in the private sector, but the end result is predetermined by the state: the individually involuntary provision of the public good clean air. Unfunded mandates have also been imposed by the U.S. federal government on the state and local governments, as with the Americans with Disabilities Act, for example.

### **Subsidies and Joint Products**

A government may subsidize production of a public good in the private sector. Unlike government provision, subsidies may result in some form of a competitive market. The potential for cronyism (for example, an alliance between political insiders and the businesses receiving subsidies) can be limited with secret bidding for the subsidies or application of the subsidies following clear general principles. Depending on the nature of a public good and a related subsidy, principal-agent problems can arise between the citizens and the government or between the government and the subsidized producers; this effect and counter-measures taken to address it can diminish the benefits of the subsidy.

Subsidies can also be used in areas with a potential for non-individualism: For instance, a state may subsidize devices to reduce air pollution and appeal to citizens to cover the remaining costs.

Similarly, a joint-product model analyzes the collaborative effect of joining a private good to a public good. For example, a tax deduction (private good) can be tied to a donation to a charity (public good). It can be shown that the provision of the public good increases when tied to the private good, as long as the private good is provided by a monopoly (otherwise the private good would be provided by competitors without the link to the public good).

### **Privileged group**

The study of collective action shows that public goods are still produced when one individual benefits more from the public good than it costs him to produce it; examples include benefits from individual use, intrinsic motivation to produce, and business models based on selling complement goods. A group that contains such individuals is called a privileged group. A

historical example could be a downtown entrepreneur who erects a street light in front of his shop to attract customers; even though there are positive external benefits to neighboring non-paying businesses, the added customers to the paying shop provide enough revenue to cover the costs of the street light.

The existence of privileged groups may not be a complete solution to the free rider problem, however, as underproduction of the public good may still result. The street light builder, for instance, would not consider the added benefit to neighboring businesses when determining whether to erect his street light, making it possible that the street light isn't built when the cost of building is too high for the single entrepreneur even when the total benefit to all the businesses combined exceeds the cost.

An example of the privileged group solution could be the Linux community, assuming that users derive more benefit from contributing than it costs them to do it.

Another example is those musicians and writers who create music and writings for their own personal enjoyment, and publish because they enjoy having an audience. Financial incentives are not necessary to ensure the creation of these public goods. Whether this creates the correct production level of writings and music is an open question.

### **Merging free riders**

Another method of overcoming the free rider problem is to simply eliminate the profit incentive for free riding by buying out all the potential free riders. A property developer that owned an entire city street, for instance, would not need to worry about free riders when erecting street lights since he owns every business that could benefit from the street light without paying. Implicitly, then, the property developer would erect street lights until the marginal social benefit met the marginal social cost. In this case, they are equivalent to the private marginal benefits and costs.

While the purchase of all potential free riders may solve the problem of underproduction due to free riders in smaller markets, it may simultaneously introduce the problem of underproduction due to monopoly. Additionally, some markets are simply too large to make a buyout of all beneficiaries feasible this is particularly visible with public goods that affect everyone in a country.

### **Introducing an exclusion mechanism (club goods)**

Another solution, which has evolved for information goods, is to introduce exclusion mechanisms which turn public goods into club goods. One well-known example is copyright and patent laws. These laws, which in the 20th century came to be called intellectual property laws, attempt to remove the natural non-excludability by prohibiting reproduction of the good. Although they can address the free rider problem, the downside of these laws is that they imply private monopoly power and thus are not Pareto-optimal.

For example, in the United States, the patent rights given to pharmaceutical companies encourage them to charge high prices (above marginal cost) and to advertise to convince patients to persuade their doctors to prescribe the drugs. Likewise, copyright provides an incentive for a publisher to act like The Dog in the Manger, taking older works out of print so as not to cannibalize revenue from the publisher's own new works.

These problems with the club-good mechanism arise because the underlying marginal cost of giving the good to more people is low or zero, but, because of the limits of price discrimination those who are unwilling or unable to pay a profit-maximizing price do not gain access to the good.

If the costs of the exclusion mechanism are not higher than the gain from the collaboration, club goods can emerge naturally. James M. Buchanan showed in his seminal paper that clubs can be an efficient alternative to government interventions.

On the other hand, the inefficiencies and inequities of club goods exclusions sometimes cause potentially excludable club goods to be treated as public goods, and their production financed by some other mechanism. Examples of such "natural" club goods include natural monopolies with very high fixed costs, private golf courses, cinemas, cable television and social clubs. This explains why many such goods are often provided or subsidized by governments, co-operatives or volunteer associations, rather than being left to be supplied by profit-minded entrepreneurs. These goods are often known as social goods.

Joseph Schumpeter claimed that the "excess profits," or profits over normal profit, generated by the copyright or patent monopoly will attract competitors that will make technological innovations and thereby end the monopoly. This is a continual process referred to as "Schumpeterian creative destruction", and its applicability to different types of public goods is a source of some controversy. The supporters of the theory point to the case of Microsoft, for example, which has been increasing its prices (or lowering its products' quality), predicting that these practices will make increased market shares for Linux and Apple largely inevitable.

A nation can be seen as a club whose members are its citizens. Government would then be the manager of this club.

### **Efficient production levels of public goods**

The Pareto optimum provision of a public good in a society is at the level where the combined sum of the marginal rate of substitution between private goods and a given public good of all individuals is equal to the marginal rate of transformation. This contrasts to the Pareto optimality condition of private goods, in which each consumers marginal rate of substitution is equal; as is the societies marginal rate of transformation.

When should a public good be provided? To illustrate the basic principle, consider a community composed of just two consumers. The government is considering whether or not to provide a park. Arthur is prepared to pay up to \$200 for use of the park, while Julia is willing to pay up to \$100. The total value to the two individuals of having the park is \$300. If it can be produced for \$225, there is a \$75 gain on its production since it provides services that the community values at \$300 at a cost of only \$225.

Regardless of the method of providing public goods, the efficient level of such provision is still being subjected to economic analysis. For instance, the Samuelson condition calculates the efficient level of public goods production to be where the ratio of the marginal social cost of public and private goods production equals the ratio of the marginal social benefit of public and private goods production.

"If the amount of a public good can be varied continuously, the optimal quantity to produce is that quantity for which the marginal cost of the last unit is just equal to the sum of the prices that all consumers would be willing to pay for that unit." This equilibrium guarantees that the last unit of the public good costs as much to produce as the value that it gives to all of its consumers.

## **Merit Good**

The concept of a **merit good** introduced in economics by Richard Musgrave (1957, 1959) is a commodity which is judged that an individual or society should have on the basis of some concept of need, rather than ability and willingness to pay. The term is, perhaps, less often used today than it was in the 1960s to 1980s but the concept still lies behind many economic actions by governments which are not performed specifically for financial reasons or by supporting incomes (e.g. via tax rebates). Examples include the provision of food stamps to support nutrition, the delivery of health services to improve quality of life and reduce morbidity, subsidized housing and arguably education.

In many cases, merit goods provide services which it is argued should apply universally to everyone in a particular situation, a view that is close to the concept of primary goods found in work by philosopher John Rawls or discussions about social inclusion. On the 'supply' side, it is sometimes suggested that there will be more support in society for implicit redistribution via the provision of certain kinds of goods and services, rather than explicit redistribution through income. Alternatively, it is sometimes suggested that society in general may be in a better position to determine what individuals need (such arguments are often criticised for being paternalistic, often by those who would like to reduce to a minimum economic activity by government).

Sometimes, merit and demerit goods are simply seen as an extension of the idea of externalities. A merit good may be described as a good that has positive externalities associated with it. Thus, an inoculation against a contagious disease may be seen as a merit good. This is because others who may not now catch the disease from the inoculated person also benefit.

However, merit and demerit goods can be defined in a different way which makes it different from externalities. The essence of merit and demerit goods is to do with an information failure to the consumer. This arises because consumers do not perceive quite how good or bad the good is for them: either they do not have the right information or lack relevant information. With this definition, a merit good is defined as good that is better for a person than the person who may consume the good realises.

Other possible rationales for treating some commodities as merit (or demerit) goods include public-goods aspects of a commodity, imposing community standards (prostitution, drugs, etc.), immaturity or incapacity, and addiction. A common element of all of these is recommending for or against some goods on a basis other than consumer choice.<sup>[3]</sup> However, there is no reason why governments should not consult their populations on such issues as they increasingly do in a number of economic contexts (e.g., development planning by the World Bank or resource allocation in health systems using information on health-benefits).

In the case of education, it can be argued that those lacking education are incapable of making an informed choice about the benefits of education, which would warrant compulsion. In this case, the implementation of consumer sovereignty is the motivation, rather than rejection of consumer sovereignty.

Public Choice Theory suggests that good government policies are an under-supplied merit good in a democracy.

A merit good can be defined as a good which would be under-consumed (and under-produced) in the free market economy. This is due to two main reasons:

1. When consumed, a merit good creates positive externalities (an externality being a third party/spill-over effect which arises from the consumption or production of the good/service). This means that there is a divergence between private benefit and public benefit when a merit good is consumed (i.e. the public benefit is greater than the private benefit). However, as consumers only take into account private benefits when consuming merit goods, it means that they are under-consumed (and so under-produced).
2. Individuals are myopic, they are short-term utility maximisers and so do not take into account the long term benefits of consuming a merit good and so they are under-consumed.

### **Market failures: Imperfections, Decreasing costs and Externalities:**

## **Market Failure**

In economics, market failure is when the allocation of goods and services by a free market is not efficient. That is, there exists another conceivable outcome where a market participant may be made better-off without making someone else worse-off. (The outcome is not Pareto optimal.) Market failures can be viewed as scenarios where individuals' pursuit of pure self-interest leads to results that are not efficient that can be improved upon from the societal point of view. The first known use of the term by economists was in 1958, but the concept has been traced back to the Victorian philosopher Henry Sidgwick.

Market failures are often associated with time-inconsistent preferences, information asymmetries, non-competitive markets, principal-agent problems, externalities, or public goods. The existence of a market failure is often the reason that self-regulatory organizations, governments or supra-national institutions intervene in a particular market. Economists, especially micro-economists, are often concerned with the causes of market failure and possible means of correction. Such analysis plays an important role in many types of public policy decisions and studies. However, government policy interventions, such as taxes, subsidies, bailouts, wage and price controls, and regulations (including poorly implemented attempts to correct market failure), may also lead to an inefficient allocation of resources, sometimes called government failure.

Given the tension between, on the one hand, the undeniable costs to society caused by market failure, and on the other hand, the potential that attempts to mitigate these costs could lead to even greater costs from "government failure," there is sometimes a choice between imperfect outcomes, i.e. imperfect market outcomes with or without government interventions. But either way, if a market failure exists the outcome is not Pareto efficient. Most mainstream economists believe that there are circumstances (like building codes or endangered species) in which it is possible for government or other organizations to improve the inefficient market outcome. Several heterodox schools of thought disagree with this as a matter of principle.

Different economists have different views about what events are the sources of market failure. Mainstream economic analysis widely accepts a market failure (relative to Pareto efficiency) can occur for three main reasons: if the market is "monopolised" or a small group of businesses hold significant market power, if production of the good or service results in an externality, or if the good or service is a "public good".

### **Externalities:**

A good or service could also have significant externalities, where gains or losses associated with the product, production or consumption of a product because it differs from the private cost. These externalities can be innate to the methods of production or other conditions important to the market. For example, when a firm is producing steel, it absorbs labor, capital and other inputs, it must pay for these in the appropriate markets, and these costs will be reflected in the market price for steel. If the firm also pollutes the atmosphere when it makes steel, however, and if it is not forced to pay for the use of this resource, then this cost will be borne not by the firm but by society. Hence, the market price for steel will fail to incorporate the full opportunity cost to society of producing. In this case, the market equilibrium in the steel industry will not be optimal. More steel will be produced than would occur were the firm to have to pay for all of its costs of production. Consequently, the marginal social cost of the last unit produced will exceed its marginal social benefit.

Traffic congestion is an example of market failure that incorporates both non-excludability and externality. Public roads are common resources that are available for the entire population's use (non-excludable), and act as a complement to cars (the more roads there are, the more useful cars become). Because there is very low cost but high benefit to individual drivers in using the roads, the roads become congested, decreasing their usefulness to society. Furthermore, driving can impose hidden costs on society through pollution (externality). Solutions for this include public transportation, congestion pricing, tolls, and other ways of making the driver include the social cost in the decision to drive.

Perhaps the best example of the inefficiency associated with common/public goods and externalities is the environmental harm caused by pollution and overexploitation of natural resources.

Climate change is the greatest market failure the world has ever seen, and it interacts with other market imperfections. Three elements of policy are required for an effective global response. The first is the pricing of carbon, implemented through tax, trading or regulation. The second is policy to support innovation and the deployment of low-carbon technologies. And the third is action to remove barriers to energy efficiency, and to inform, educate and persuade individuals about what they can do to respond to climate change.

Examples of Externality:

- River pollution: - To given by Louis Gevers.
- Traffic James.
- Pecuniary externality.
- The rat-race problem.
- The tragedy of the commons.
- Bandwagon effect.

## **Lesson-2**

### **ROLE OF GOVERNMENT AS AN AGENT OF PLANNING AND DEVELOPMENT:-**

Prof. B.P. Adarkar, in his book on “Principle and Problems of federal finance” Lays down three principles which should govern the working of federal finance system.

Economic development has been closely linked with planning. In a developing country like India is rampant and the quality of life is low, the Government undertook the responsibility of the economic development of the country through the medium of five year plans. This involved a

larger role of the public sector and a limited place for the market. For this purpose, India adopted planning in 1951. The most important reason for the adoption of planning was that it was considered a superior way of developing the economy. It is rightly thought that planning was essential to ensure a quick building of the productive capacity of the country. This was possible because a large and a pre- determined proportion of national resources could be devoted to the construction of infrastructure facilities (like roads, railways, communication, etc.) and of capital goods industries (like machines, tools, etc.) Regarding the problem of inadequate supplies of consumer goods, it could be tackled by an equitable distribution of the same, to protect the interests of the low income groups. Again long term planning could enable the government to plan for a long gestation periods and for a big projects on the basis of large resources over long period time span. Further, it becomes possible to achieve the balanced regional development and sectoral growth of the economy. The government could mobilize the resources for investment, taxation and other non-tax sources of revenue. The government can tap foreign resources. It could fill up the information gap in respect of natural resources and other facets of life. The deficiency in the infrastructural facilities like water supply, drainage, transport, etc. could be fully provided by the government. In brief, a government can do a lot of things in remaining many shortcomings of the economy and facilitate the economic development. The Government can take big tasks through planning, for example, pulling up the very low investment rate to a sizeable figure in a given period of time, the planning can be used to mobilize foreign resources from the government and international financial institutions. It also helps to change a large single- dimensional trade into multi- directional trade.

The role of govt. as an agent of planning and development are discussed as follow:

- 1. Interdependence and Responsibility:** In the first place of Prof. B.A. Adarkar said that 'Freedom of financial operation' must be extended to both central as well as state govt. in order that they might not suffer from a feeling of cramp in the discharge of their normal activities and the achievement of their legitimate aspirations for the promotion of social and economic (development) advancement. It means that the central and state govt. must each have under it, its own interdependence central financial resources sufficient to carry out its exclusive functions.

2. **Adequacy and Responsibility:** (It stand for sufficiency of resources for the discharge of functions and duties assigned. By elasticity of govt. – finance, means that resources should be capable of expansion in response to rapidly growing needs and responsibilities of the govt. concerned.
3. **Administrative Economy and Efficiency:** For the success of central – state financial relations. It is very much required that the administrative cost should be minimum and there should be no fraud and tax evasion in matter of finances. It should also be taken into account at the time of allocating resources as to whether a certain source can be better administered by federation or state govt. corruption and inter-regional smuggling are to be avoided and the sources of revenue are to be fully exploited.
4. **Equity:** As for as equity is concerned, the govt. plays an important role for the development. In the assignment of allocation of function there is.

For inequality to creep and may spoil the entire structure basically. Different state of federation may have disparity in the level of economic development and therefore, according to it, the burden of taxation will be inequally distributed as the marginal sacrifice will be different in different states. The marginal sacrifice of the tax payers of richer states will be less as compared to those of the poor states.

5. **Accountability:** Federation and democracy are sister institutions in a federal system. Therefore, in federal system such govt. should be accountable to its own legislature for it having and spending decisions and should make those decisions with due regards for their effect on other govt.
6. **Integration and Co-ordination:** The govt. should be well integrated and each layer of financial system of federation should not be taken as completely isolated from the other layers of financial system of federal and state govt. is necessary in contemporary federation. There should be done in all way that promote economic development, co-ordination is also important for smooth and efficient working of federal financial system. The co-ordination of federal state should not be in taxation alone but in every aspect of finance.

**Conclusion:** Finally, it may be stated that with so many conflicting claims on the limited resources, the government could alone lay priorities for the resource use in social terms. And the way of resolving the conflicts and moving on the long term development path is planning. The government can raise the productivity in the economy in general and can provide growth and equity through public sector programmers by adopting the objectives i.e. targets of planning.

## **PROBLEM OF ALLOCATION OF RESOURCES**

In a market economy, resources are allocated according to price mechanism. The price mechanism is able to allocate resources efficiently. Efficient allocation of resources can be achieved when prices act as a signal to both consumers and producers in resource allocation. The prices decide what and how much to produce, how to produce and for whom to produce. On the case of what and how much to produce, consumers express their valuation of a good through prices. When there is increase in demand for good there will be increase in the price of the good. Producers then allocate the more resources to the production of the good then to the alternate good with lower price using the same amount of resources. Consumers welfare is maximized as goods that are valued more will be produced in the free market. The price differences across the goods thus signal the quantity that should be produced.

Given the assumption of perfect competition producers would adopt the least-cost technique of production to produce the goods and services, thus ensuring that productive efficiency are achieved.

Goods are produced for those who are able willing to pay. The ability to pay determined the factor price while the willingness to pay determined the product price. Consumers would be willing to pay more for the goods that they value more. This ensure that consumer's welfare is maximized as they get to enjoy the goods that given them most satisfaction. As resources are allocated to the production of goods and services that society value more, society's welfare is maximized. Hence, allocation efficiency is achieved. A market determined allocation of

resources may be economically efficient is an important one. But unfortunately the condition under which a market allocation is efficient are often not met, and market fails in many ways to achieve efficient of resources. It has been discussed as below:-

- **1. Allocation of resources and the distribution of Income:-**The efficient allocation of resources depends how the resources are distributed among individuals. Suppose that X represents necessities food, housing etc and Y represents luxuries, cosmetics etc. Given a particular distribution of income, efficient output of X and Y are QX & QY. If some income of the rich is transferred to the poor the demand for X increases and the demand for Y falls. Resource also shifts from the production of Y good to the production of X good. Since the real world market systems do not correspond with the real distribution of income and therefore, it is said that the market does not achieve an efficient allocation of resources.
- **2. Allocation of Resources in Market and Decreasing Cost:-**Besides a pure public good possesses the characteristics of that it is subject to the law of decreasing cost. Decreasing example is transportation, hospitals, postal services and power generation. There are key sectors in any economy. Market processes are likely to result in production of commodities in these sectors of the economy are subject to decreasing cost conditions and the producers may find it profitable to produce less and charge a higher price. The exception occurs when discriminatory pricing is feasible and at a sufficiently low cost otherwise, market process fails and there is potentially a welfare gain from government action that increases output.
- **3. Allocation of resources in Market and Public Wants: -** Allocation of resources may not be efficient in case of certain public wants. In the market place a person will not be able to satisfy his wants unless he offers to purchase at market price. Thus the market is capable of excluding a person from benefit unless he pays the market price for the product. But in this case of many of the most important social wants, a person cannot be excluded from wants, a person cannot be excluded from benefits e.g.: national defense, a

citizen cannot be excluded from the benefits of defense matter what he offers to pay. Prof. Musgrave called such want a social want.

- **4. Profit System Fails to Achieve the Social Goal of Income Stability :-**Profit system fails to achieve the social goal of economic stability even under the best of private enterprise condition reaction of an individual to prospective decline in demand normally to reduce investment in plant and inventory accentuates to decline.

## **TIEBOUT HYPOTHESIS**

The Tiebout model, also known as the Tiebout sorting, Tiebout migration or Tiebout hypothesis, is a positive political theory model described by an economist Charles Tiebout in his article 'A Pure Theory of Local Expenditures' in 1956. The essence of the model is that there is in fact a non-political solution to the free rider problem in local governance.

Tiebout first proposed the model informally in a seminar with Richard Musgrave, who argued that the free rider problem necessarily required a political solution. Later, Tiebout fully described his hypothesis in an article in 1956 by the journal of political economy.

Tiebout describes municipalities within a region by offering varying baskets of goods (Govt. Services) at a variety of prices (taxes). Given that individuals have differing personal valuations on these services and varying ability to pay the attendant taxes. The individual will move from one local community to another until he finds the one community which maximizes their personal utility. The model states that through the choice process of individual jurisdiction and residents will determine an equilibrium position of local public goods in accord with the tastes of residents, thereby sorting the population into optimum communities. The model has the benefit of solving two major problems with government provision of public goods as preference revelation and preference aggregation.

Tiebout observed that pure public goods leads to market failure because of difficulties connected with information transmission since the true valuation by a consumer of a public good cannot be observed and a pure public good is non-excludable, free-riding occurs and private provision is inefficient.

The significance of the efficient result which is commonly called the Tiebout Hypothesis has been debated.

### **Assumptions:-**

The Tiebout model relies on a set of basic assumptions which are:

1. Consumers are free to choose where they live. There is no cost associated with moving.
2. Complete information.
3. There are many communities to choose from.
4. Community is not an issue.
5. Public goods do not spill over in terms of benefits/ costs from one community to the next.
6. An optimal city size exists: economies of scales.
7. Consumers are rational try to keep the public bad consumers away.

Critics say it as simply another empty demonstration of what is possible unrealistic assumption certainly the Tiebout Hypothesis has much the same foundations as the two theorems of welfare economics. Since both the theorems concern economies with no rigidities and large number of participants. But there is one important difference between the two as formulating the Tiebout Hypothesis is more difficult task.

The Tiebout hypothesis depends on the freedom of consumers to move to preferred location. This is only possible if there is no transaction costs involved in changing location. In practice, such transaction costs arise in the commission that has to be paid to estate agents in legal fees, and in the physical costs of shipping furniture and belongings. These can be significant and will cause friction in the movement of consumers to the extent that suboptimal levels of provision will be tolerated to avoid paying these costs.

To sum up, the Tiebout hypothesis provides support for allowing the market by which is meant the free movement of consumers, to determine the provision of local public goods. By choosing communities, consumers reveal their tastes. They also have to abide by local tax law. So free riding is ruled out. Hence efficiency is achieved although apparently simple, there are number of difficulties when the practical implantation of this hypothesis is considered. The population may not partition neatly into the communities envisaged and employment his may blind consumers to localities whose local public good supply is not to their linkage.

Transactions cost in housing markets are significant and these will limit the freedom of movement of this key to the hypothesis. The hypothesis provides an interesting insight into the force at work in the formulation of communities, but it also not guaranteed efficiency.

### **Lesson-3**

#### **SAMUELSON'S OR PURE THEORY OF EXPENDITURE:**

##### **Theories Of Public Expenditure:**

Classical theorist did not play much attention to frame any theory regarding the increase of public expenditure. They simply regarded it as an administrative institution which only concerns with performing certain protective functions. The state has to do very little with the provision of public services, the modern state is termed as welfare state in which the Govt.-has enormous functions to perform. For the first time Adloph Wagner, a fiscal theorist propounded an empirical theory to effect the govt. inequality grows larger.

##### **Samuelson Theory**

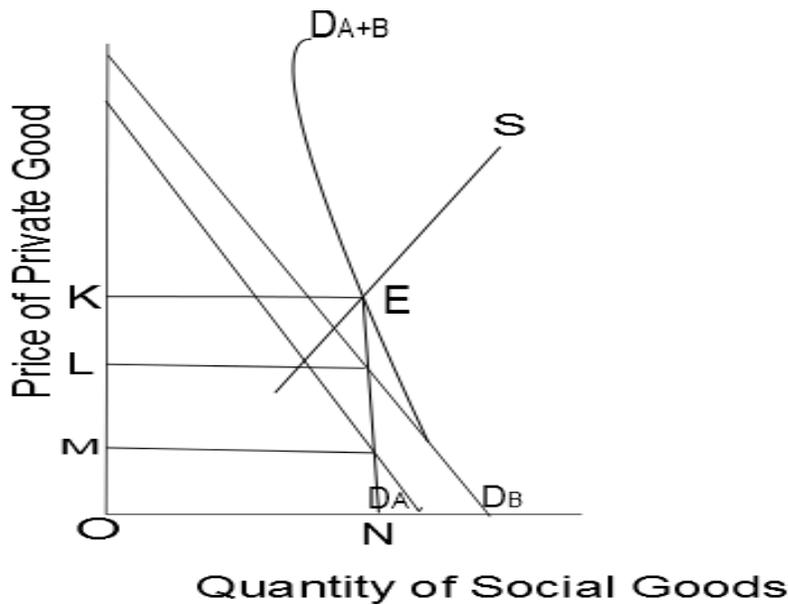
Samuelson's pure theory of public expenditure goes back to Italian and Australian writers who are responsible for the renaissance of the benefit approach.

Samuelson's theory of public expenditure takes into account both allocation and distribution facets of the problem and thus provide a unified system of general equilibrium analysis of the theory of public expenditure.

According to Samuelson, public goods are provided collectively. They cannot be provided by private enterprise. Private goods are provided on the basis of preferences revealed freely by individuals in the market. Individual preferences are not known in the case of public goods. So, how can a market principle be applicable to the provision of public goods? The answer to this problem is that in a 'democratic society' ultimate justification of government provision of public goods or other activities is the desire of the members of the society for such goods and activities, rather than an authoritarian determination that such action is desirable. Though government may largely influence the preferences of the individuals for the public goods, yet it may be assumed that such preferences are the ultimate source of justification for the governmental activities.

**Diagrammatic explanation:**

Figure



In this figure  $D_A$  and  $D_B$  are demand curves for private good X for A and B.  $D_{A+B}$  is the market demand for X which is obtained by the horizontal addition of  $D_A$  and  $D_B$ . S is the supply curve of X. Price of X is OC for both A and B which is determined by the intersection of market demand  $D_{A+B}$  with market supply S at the point E. Quantity purchased by A and B together is OH. A will purchase OF while B buys OG so that  $OF+OG=OH$ .

In fig  $D_A$  and  $D_B$  again are the demand schedules for A and B and  $D_{A+B}$  which is obtained by the vertical addition of  $D_A$  and  $D_B$  is the market demand for the social good (G). Since G consumed in the same quantity by all tax payer consumers, market demand for social goods require vertical addition of individual demand curves. S is the supply of G. Equilibrium between demand for and supply of G is given at E. So, consumption of G by both A and B are/is ON and the combined price is OK of which OM is paid by A and OK by B. So that  $OK= OM+OL$ .

### **Musgrave's View On Pure Theory Of Public Expenditure:**

Samuelson's pure theory of public expenditure solves two problems under the assumption of given preferences and distribution of income. They are:

- i. The division of total output between the public good and private good.
- ii. Division of the total supply of private goods between two consumers 'a' and 'b'.

All his solutions are Pareto optimal because any departure from them involves a loss to either 'a' or 'b'. The optimum of all such optima is then decided on the basis of a social utility function as part of the general problem of welfare maximization.

According to Musgrave, "This formulation meets the test of theoretical rigour and sweeping elegance and ranks among the great contributions to the theory of welfare economics, as applied to public finance". Yes, Samuelson's does not satisfy those who intend to apply fiscal theory to partial problems and specific issues. From the implementation point of view it is far from satisfactory. Johnson has tried to remove some of these difficulties as was done earlier by Lindahl and Musgrave. Musgrave is of the view that Johnson's formulation may be considered as a special case of Samuelson's broader framework. But this formulation is more attractive since it directly deals with the question of tax shares. "At the same time, it leaves open the

question of why the initial state of resource endowment was considered proper we are still left with an inconsistency which is successfully removed in Samuelson's general formulation".

### **Adolph Wagner's Hypothesis:**

Adolph Wagner a famous German theorist believed that there exist a functional cause and effect relationship between the growth of an industrializing economy and the relative growth of its public sector. According to Wagner, the relative growth of the public sector is an inherent characteristic of industrializing economy. The intensive and extensive growth of the public sector, according to Wagner, was not only in Britain, which essentially had completed its industrial revolution, but also other countries such as United States, France, Germany and Japan whose industrial revolution were contemporary to his life. Hence, the Wagner's Hypothesis of increasing governmental activity holds that as the per-capita income and output increases in industrializing nations, the public sectors of these nations necessarily grow as a proportion of total economic activity.

Wagner argued that social progress brought increasing state activity which in turn meant more government expenditure. He gave three points/ reasons for this growth of state activity.

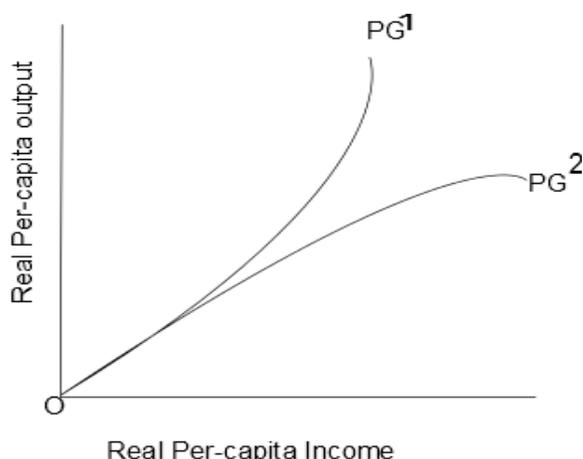
Firstly, with economic development and increasing division of labor economic life would grow more complex and therefore the causes of friction increases, for the state to maintain law and order and an efficient economy would require more resources on public and legal services.

Secondly, new technology would create the need for large amount of capital in production which could only be provided by the joint stock companies or public corporations. According to Wagner, public corporation was superior to the joint stock companies. In particular the state had an increasing role of production where technical conditions formed monopoly.

Finally, Wagner saw increasing state activity in the fields of health and education where the social benefits of the service were not susceptible to economic evaluation.

### **Diagrammatic Representation:**

The Wagner's Hypothesis of increasing governmental activity is depicted in the figure 15.1. In this figure the real per-capita output (PG) is measured on the vertical axis and the real per-capita income (Y) is measured on the horizontal axis.



Time is an important third dimension implicit in the figure, because the growth in the real per-capita output of public goods and real per-capita income is realistically assumed to take place on a horizontal basis over an extended period of time.

As real per-capita income increases due to economic development of the society, the real per capita output of public goods remains constant at the same proportion of the total economic activity. Thus,  $PG^1$  the equation is

$$PG_a / Y_a = PG_o / Y_o$$

Where, the subscript 'a' refers to the 'later' and subscript 'o' refers to 'earlier' point of time. The constant proportion line,  $PG^1$ , can be used as a reference point of Wagner's Hypothesis in figure 15.1. But when the proportion of resources devoted to the output, public goods are expanding over time i.e.,  $PG^2$ , the equation is

$$PG_a / Y_a > PG_o / Y_o$$

In other words, the income elasticity of expenditure for public goods is elastic.

## **THE PEACOCK-WISEMAN HYPOTHESIS**

Peacock and Wiseman conducted a new study based on Wagner's Law. They studied the public expenditure from 1891 to 1955 in U.K. They found out that Wagner's Law is still valid.

Peacock and Wiseman further stated that :-

1. "The rise in public expenditure greatly depends on revenue collection. Over the years, economic development results in substantial revenue to the governments, this enabled to increase public expenditure".
2. There exists a big gap between the expectations of the people about public expenditure and the tolerance level of taxation. Therefore, governments cannot ignore the demands made by people regarding various services, especially, when the revenue collection is increasing at constant rate of taxation.
3. They further stated that during the times of war, the government further increases the tax rates, and enlarges the tax structure to generate more funds to meet the increase in defence expenditure. After the war, the new tax rates and tax structures may remain the same, as people get used to them. Therefore, the increase in revenue results in rise in government expenditure.

Wagner's law and Peacock-Wiseman hypothesis emphasize on the fact that public expenditure has tendency to increase overtime.

## **Musgrave and Rostow's Development Model**

The economist, Musgrave, and the economic historian, Rostow, (separately) suggested that the growth of public expenditure might be related to the pattern of economic growth and development in societies. Three stages in the development process could be distinguished:

(a) The early development stage where considerable expenditure is required on education and on the infrastructure of the economy (also known as social overhead capital) and where private saving is inadequate to finance this necessary expenditure (in this stage, government expenditure must thus be a high proportion of total output);

(b) The phase of rapid growth in which there are large increases in private saving and public investment falls proportionately; and

(c) High income societies with increased demand for private goods which need complementary public investment (e.g. the motor car and urbanisation).

The increasing need in high-income societies for skilled labour leads education to become increasingly an investment good for society as a whole. Increased population movements lead to the development of urban slums. Such factors and others lead once again to an increase in public expenditure in relation to total output.

These views are interesting in relation to theories of growth and development but are rather too general to provide much of a guide to recent experience in developed industrial countries.

### **Critical-Limit Hypothesis**

Another hypothesis is known as critical-limit hypothesis, and concerned with the tolerance level of taxation, was enunciated by the British economist Colin Clark immediately after the World War II. Analysis of the empirical data of several western countries for the inter-war period results in the critical-limit hypothesis that when the government sector taxes and other receipts exceeds 25 per cent of aggregate economic activities, inflation necessarily arises, even when the budget is balance. Clark lays down that

1. When government tax system extricates increasing proportions of additional income from taxpayers, whose incentives are harmed and whose productivity falls.

2. People become less resistant to inflationary methods of government financing. While the aggregate demand expands as a result of inflationary financing techniques, aggregate supply falls due to loss of incentives and, hence, inflation results.

As the hypothesis is based upon institutional factor like the tolerance level of taxation, it resembles the displacement effect. In quite other respects, the two hypotheses are quite different. Whereas this hypothesis has received very little support from academic circles, it has received popular support from business circles. Recent decades have however, proved that many countries have crossed the 25 per cent limit without much inflationary tendencies.

#### **Lesson-4**

### **POLITICAL ECONOMY OF PUBLIC ECONOMICS:**

#### **Voting and Rent Seeking**

**Voting** is the most commonly employed method of resolving a diversity of views or dictating expression of preference. It is used to determine the outcome of elections from local to super natural level within organizations, voting determines who is elected to committees and it governs the decision making of those committees. Voting is a universal tool that is encountered in all sphere of life. The prevalence of voting, its use in electing governments and its use by these govt. elected to each decisions, is the basis for the considerable interest in the properties of voting. The natural questions to ask of voting is whether it is a good method of mapping decisions.

There are two major properties to look for in good method.

First, is the success or failure of the method of achieving a clear cut decision.

Second, is the issue of whether voting always produce an outcome that is efficient. Voting would be of limited value if it frequently left the choice that was clearly inferior to other alternatives whether voting satisfies these properties is shown to be somewhat dependent on the precise method of voting adopted. Ordinary majority voting is very familiar but it is only one among a number of voting several of these methods of voting will be introduced and analyzed along side the standard form of majority voting.

Stability voting is an example of collective choice the process by which a group reaches a decision. A major issue of collective choice is stability. By stability we mean the tendency of the decision making process to eventually reach settled conclusion and not to keep jumping around between alternatives.

Impossibility: Determining the preference of an individual is just a matter of accepting that an individual's judgment cannot be open to dispute. In contrast, determining the preference of a group of people is not a simple method and that is social choice theory is all about social choices take a given set of individual preferences and tries to aggregate them into a social preference.

The central result of the theory of the social choice, Arrow's Impossibility theorem, says that there is no way to devise a collective decision making process that satisfies common sense requirements and works in all circumstances. If there are only two options, majority voting works just fine, but with more than two we can get into trouble. Despite of all the talk about the will of the people it is not easy. In fact, the theorem proves it impossible to always determine what that will is. This is the remarkable fact of Arrow's Impossibility theorem.

Now suppose we use majority rule to select one of these options. We see that two out of three voters prefer 'a' to 'b', while two out of three prefers 'b' to 'c' and two out of three prefers 'c' to 'a'. At the collective level there is cycle in preference and no decision is possible. We say that such collective preferences are intransitive, meaning that preference for 'a' over 'b' and for 'b' over 'c' does not imply 'a' is preferred to 'c'. As the example shows intransitivity of group

preferences can arise even when individual preferences are transitive. This generation of social intransitivity from individual transitivity is called the Condorcet paradox.

### Condorcet paradox

Voter-1	Voter-2	Voter-3
a	c	b
b	a	c
c	b	a

The general problem addressed by Arrow in 1951 was to seek a way of aggregating individual rankings over options into a collective ranking. In doing so, difficulties such as the Condorcet paradox had to be avoided. Arrow's approach was to start from a set of requirements that a collective ranking must satisfy and then consider if any ranking could be found that met them all. These conditions are now listed and explained.

**Condition-I (Independence of irrelevant alternatives):** Adding new options should not affect the initial ranking of the old options, so the collective ranking over the old options should be unchanged.

**Condition-N (Non-dictatorship):** The collective preference should not be determined by the preferences of one individual. This is the weakest equity requirement.

**Condition-P (Pareto criterion):** If everybody agrees on the ranking of all the possible options, so should the group, the collective ranking should coincide with the common individual ranking.

**Condition-U (Unrestricted domain):** The collective choice method should accommodate any possible individual ranking of options/upholding of liberty.

**Condition-T (Transitivity):** If the group prefers 'a' to 'b' and 'b' to 'c' then the group cannot prefer 'c' to 'a'.

Arrow's impossibility theorem states choosing among more than two options there exists no collective decision making process that satisfy the conditions I, N, P, U, T.

**Majority rule (May's theorem):** It says when choosing among only two options there is only one collective decision making process that satisfies the requirements of anonymity, neutrality, decisiveness and positive responsiveness. This process is called majority rule.

**Median voter theorem:** When the policy space is one dimensional, sufficient conditions for the existence of a Condorcet winner are given by the median voter theorems. One version of these theorems refers to single peaked preference while the other version refers to single crossing preferences. The two conditions of single peaked and single crossing preference are logically independent; but both conditions give the same conclusion that the median position is a Condorcet winner.

Some other techniques were:

**Under majority rule:**

- a) Multidimensional voting.
- b) Agenda manipulating.

**Alternative majority rule:**

- a) Boarda voting.
- b) Plural voting.
- c) Approval voting.
- d) Run-off voting.

**Rent Seeking :-** Rent seeking received a number of different definition in the literature. Whether the resources used in rent seeking are directly wasted and in whether the term can be applied only to rents created by govt. It is not the purpose here to catalog these definition. It instead to motivate the concept of rent seeking by govt. and draw out the common standard of the definition. The idea that behind the rent seeking can be seen by considering following two situations.

Firm is engaged in research intended to develop a new product. The research is successful, the product will be unique and the firm will have a monopoly position, and extract some rent from the firm, until rival products are introduced.

A firm has introduced a new product to the home market. A similar product is manufactured overseas the firm hires employees to lobby the govt. to prevent imports of overseas products. If it is successful it will enjoy a monopoly position from which it will earn rent.

These comments now allow us to distinguish between two companies. Profit seeking is the expenditure of resources to create a profitable position that is ultimately beneficial to society. Profit seeking is exemplified by the example to research is what diverse progress in the economy and is the motivating force behind competition. Rent seeking is the expenditure of resources to create a profitable opportunity that is, ultimately damaging to society. Rent seeking as exemplified by the use of layers hinder the economy and limit competition.

### **Forms of Rent seeking:**

It can be inferred from the above discussion that rent seeking can take many forms. All lobbying of government for beneficial treatment, be it protection from competition, or the payment of subsidies is rent seeking. Expenditure on advertising is rent seeking and so is the argument for tariffs to protect infant industries. These activities are widespread and thus rent seeking becomes an important issue.

**Government policies for Rent seeking:** There are two channels through which the government is connected with rent seeking. Thus channels are:

- **Lobbying:** It is well known that the developed countries like USA have a large number of professional lobbyists. These lobbyists try to change government policies in favor of the interests that employ them. If the lobbyists are successful, rents are created.
- **Bureaucrats and Politicians:** Bureaucrats and politicians in government are able to create rents through their policy choices. These rents can be sold to the parties that benefit. Selling rents generates income for the sellers and gives an incentive for earners to be made in politics and bureaucracy.

**Distinction Between Profit Seeking And Rent Seeking:** From the above mentioned two situations we can now distinguish between two concepts of profit seeking and rent seeking.

Profit seeking is the expenditure of the resources to create a profitable position that is ultimately beneficial to the society. Profit seeking can be explained through the example of research which drives progress in the economy and is the motivating force behind the competition.

Rent seeking is the expenditure of the resources to create a profitable opportunity that is ultimately damaging the society. Rent seeking is exemplified by using the services of lawyers which hinders the economy and limits competition.

### **OBJECTIVE OF PUBLIC EXPENDITURE:**

Public expenditure is not merely a financial mechanism but it helps in securing economic and social objectives in an economy. The traditional objective of Public expenditure in developed countries are said to be

- a) Increase in income and employment.
- b) Better distribution of income.
- c) Proper allocation of socially desirable channels.

Recently Prof. Musgrave pointed out that the public expenditure in matured economies is increasing.

- a) For maximizing economic welfare through allocation of resources.
- b) For achieving full employment and economic stability.
- c) For making equitable distribution of income.
- d) For accelerating economic growth.

Thus he assigned four functions to the public expenditure in mature economies namely.

- i) Activities to secure re-allocation of resources.
- ii) Redistribution activities.
- iii) Stabilizing activities.
- iv) Commercial activities.

A modern democratic govt. has to incur public expenditure on these activities because of

- 1. The imperfection in the market economics or the presence of monopolistic tendencies.
- 2. Full employment or economic equitable distribution of income may not be attained.
- 3. Economic stability may not be automatically achieved.
- 4. Operation of certain enterprises by private sector may not be socially desirable.

Prof. Musgrave pointed out the following reasons for increasing trends of public expenditure in developed economies.

### **1. Activities to Secure A Reallocation Of Resources**

If there are imperfections in the market economies and the government has to intervene to eliminate the imperfections such economies by means of spread of knowledge and employment exchange etc. The Government has to encountered expansion of output of such industries by means of subsidies to the producer with the view to making it available large amount of the masses. Thus government has to encourage an expansion of such output

The production and use of certain goods like liquor create additional cost to the society in the form of traffic accidents and more govt. has to take measures to restrict the investment in such industries regulating output or by imposing high taxes on the production of such goods. Thus the value of public expenditure has increased.

Certain goods or services like health facilities, education, transportation and defense must be provided to the govt. because they cannot be provided by private producers.

**2) Redistributive Activities:** -Inequalities in the distribution of income are an important feature of a modern economy. Such inequalities are sought to be reduced by means of taxes and transfers of expenditures as also by means of legislations so as to raise the economic welfare of masses. This objective can also be achieved by means of public works, minimum wage legislation, price, support, tariffs, such activities provide minimum standard of living – desirable thereby reducing the adverse effects of income-inequalities.

**3) Stabilizing Activities:** -As modern govt. is supposed to avoid business fluctuation and maintain economic stability i.e. maintain a high level of employment and price stability. During the period of depression, govt. expenditure must be increased. This can be done by reducing the taxes and maintaining the existing expenditure and by increasing its expenditure while keeping the taxation constant. It is inverse in the case of boom or an inflation.

When there is full employment and the stability the govt. expenditure should be maintained so as to prevent unemployment in the inflation.

**4) Commercial Activities:** -Certain services like transport services which are natural monopolies they are most efficiently provided by the govt. than by private enterprise. The case of rendering such services should be covered by taxes like vehicle taxes. Besides, the govt. may also invest in certain projects which are highly beneficial from point of view but because of the poor returns on such projects the private enterprise may not come forward to invest in such projects. It may also provide loans to farmers and small scale producers at low rate of interest.

Finally, it may be stated up that the aim of public expenditure is to control the depressionary tendency in the market economy, on the one side and maximization of welfare on the other side. It is designed to optimize the level of investment and maintain full employment with growth. It also tends to accelerate the rate of economic growth by making available the infrastructure and increasing capital formation.

## **UNIT-2**

# **PUBLIC DEBT AND TAXATION**

## **Lesson- 1**

### **Classical Economists On Public Debt:**

In the 18th century public debts was favored by economists as they had great faith in the role of state in economic activities and their favorable attitude towards public debt was a part of the mercantilist doctrine. But in the 19th century and early part of the 20th century public debts was condemned by the early classical economists mainly because of their lack of faith in the role of state in economic activities. Public spending was considered by them as a wasteful and unproductive expenditure. There was no state intervention in the economic activities rendering private enterprise and free competition was the order of the day. Argument for the Laissez fair economy was the (order of the day) maximizing private profit would lead to maximization of social welfare.

**Adam Smith** analyses the economic effects of public debt mainly in his fifth and last book of the 'Wealth of Nation'(1776), where he argues that government should not run budget deficits because these leads to the accumulation of public debt with destructive effects for the nation even if all of it was owed domestically. Hence, Smith takes issue with widely accepted in his times mercantilists view according to which the payment of interest on public debt innocuous redistribution of income with in the country- "the right hand which pays the left", kind if argument- and he characterized it as an apology founded altogether on the sophistry of the mercantile system". Smith based his view on the idea that the redemption of public debt in the future will entail increased taxation with negative effects on the investment potential of domestic producers and also the flight of capital to foreign countries. The debt, according to Smith, - undermines the "natural progress of a nation toward wealth and prosperity". Since resources that could be used productively from the private sector of the economy are divided by the state in order to finance its unproductive activities. Consequently, Smith's ideal would be balanced budgets and only under emergency situations (such as wars, natural calamities and the like) the government perhaps was justified to run budget deficits and accumulate debt. However, when

such emergency circumstances arise the preferred method of financing government expenditure is through taxation and not borrowing.

### **David Ricardo's View:**

David Ricardo shares Smith's views on the unproductive character of government expenditures and on the notion that their financing via public borrowings "consumers" the investible product, and therefore it becomes detrimental to society's capacity to accumulate wealth.

Ricardo in (Funding of system, 1820) evaluates three ways of financing a war of an annual cost of two crores. First, through direct taxation of 2 crores. Second, through a loan, where the government will pay annually a specified sum in perpetuity and in agreed interest rate; if for example the interest rate is 5 per cent and remain constant, then the annual payments of taxes will be counterbalanced with 10 lakhs, plus a sum, e.g., with two lakhs/ lacs for the settlement of loan, whose maturity date is calculated to 45 years. From these three ways of financing, Ricardo argued that the first is preferred over the others.

Ricardo further explains the two methods of financing (taxation vs. borrowings) "in point of economy, there is no real difference", and this has been taken, by some economists, literally to mean the economic effect of the mode of financing are equal. Buchanan (1976) has coined the term "Ricardian equivalence theorem" and attributed it to Barvo (1974), whose argument is that the policy of cutting of taxation through the issue of bonds in the effort to raise aggregate demand cannot but fail, because the public anticipates the future increase in taxation for the payment of interest on the public debt and thus consumption expenditure falls. As a consequence, the final effects of deficit spending are similar regard less of the mode of financing. This argument lends support to the idea of ineffectiveness of the government policies and became particularly popular in the 1980s. However, on the further examination of Ricardo's text it becomes abundantly clear that the equivalence refers only to the collection cost and not to the economic effects of the two alternative methods of financing of government expenditures. First, because with taxation people are less willing to engage in an expensive and lasting war and second, public borrowings means consumption of savings, and therefore slowdown in capital

accumulation. In the exceptional case, when the public deficit is financed through taxation it may be produce in the short run, the same results with those that would be caused from public borrowing. Ricardo argues that in the long run the ruinous results of public borrowing in society's capacity to accumulate are even worse than those causes by taxation. The rational is similar to Smith's that is borrowing doubtless "consumers" available while the incidence of taxation is on current income for which we do not really know whether they were to be invested or consumed.

### **J.S Mill and his Conjecture:**

J.S Mill argued along similar lines with Smith and Ricardo with regards to the alternative methods of financing of public expenditure. In fact, J.S Mill qualified his view by arguing that public debt might be beneficial for a country, when it is financed from excess foreign savings, also when government borrowing generates saving that would otherwise have not taken place and finally when government borrowing absorbs domestic savings that would be either invested unproductively or invested in foreign countries.

Moreover, J.S Mill argued that in so far as loans absorbs the investible product and under normal circumstances offset partially or wholly the falling tendency in the interest rate. In the unusual case of wars when the government urgently needs to finance its expenditures, as for example, was the case in the wars with France (1793-1815) the interest rate may increase. This increase in the interest rate, J.S Mill argued constitutes prima facie evidence that the government is in direct competition against the private sector for funds that were destined to be invested productively and the state with the power of its authority diverts these funds to finance its unproductive activities.

### **Conclusion:**

Summing up, classical economists (mainly Smith, Ricardo and J.S Mill) shares the views that countries should not run deficits and accumulated debt because of its pernicious effects on capital accumulation. Starting from the idea that saving are identical to investment ( $S=I$ ), it

follows that public borrowing encroaches directly upon savings, that is the income ready to be invested productively. Since government is in general, unproductive then public borrowing amounts to undermining of the economy's capacity to accumulate. If government expenditure is necessary, as in case of a war, then the preferred way of financing them is through taxation and only exceptionally through borrowing. This view was expressed with great clarity by Smith and Ricardo and it was further elaborated by J.S Mill, who describes the precise casual relationships among the four variables at hand, i.e., the rising public debt, the rate of interest, the real wage and the rate of profit.

### **Compensatory Aspect Of Public Debt:**

The classical view on public debt did not prevail in all quarters even in the 19<sup>th</sup> century. Malthus did not agree with the view of a blanket denouncement of public debt. He was of the view that the categories of person who sustained by borrowed funds and interest payments like statesmen, soldiers and land holders etc. contribute to the effective demand for the products in an economy. Keynes in his work "The general theory of employment, interest and money" did not agree with the idea that the free market economy is self-equilibrating at full employment level. On the other hand, he advocated that such an economy may tend towards under employment equilibrium. This is because of the reason that there are resources in the private sector that may be unemployed for relating long period of time in the absence of corrective or compensatory action of the government.

It means that the employment of resources by the state does not necessarily deprive private sector of anything. On the other hand, government expenditure either for current output or for transfers would raise the level of total production and income by putting resources into use which otherwise remains idle.

When we look at the financing of these government income generating expenditure the borrowings may be considered seriously, when these take the form of selling services to the banking system. The monetary authority can keep the banking systems supplied with reserves so that the banks' lending to government does not deprive the private sector of funds. This policy of the monetary authority provides an excellent chance that government spending may compensate

the fall in private effective demand. Thus, it follows that private spending is not affected by public debt. This is likely to follow from:

1. By borrowing idle funds of the public.
2. By borrowing from the banks in which case private financing will not suffer.
3. It is still better if the public debt is financed through borrowing from the central bank.

The expansionary or restrictive effects of a deficit or surplus depend on how much the deficit is financial and to what uses the surplus is put. Quite apart from the state of deficit or surplus exchange between different type of claims- money and various forms of debt may be used to increased or reduce liquidity and thus affect the level and structure of private expenditures. Stabilization policy thus involves a choice between fiscal and liquidity measures and among various types of measures under each of these categories.

Various types of stabilization measures which equally successfully in maintaining full employment and price level stability, may differ significantly in other respects incidence or distribution effects, as well effects upon the rate of growth and other aspects of resources allocation may differ in various stabilization measures such differences must be accounted for in choosing the proper mix of stabilization policy.

The purchase of Illiquidity: To begin with let us assume that taxes are to be adjusted so as to provide a given State of budgetary balance; and that a given degree of expansion in the level of private expenditure is to be accommodated by liquidity policy while maintaining given level of private expenditure or money and less liquid debts less money and more liquid debt, a larger and less liquid debt, a smaller and more liquid debt and so forth.

### **Criteria of policy**

The Government is never forced to borrow in the market or to maintain bound services outstanding debt. There is always the option of monetizing the debt, that is of printing notes and purchasing the outstanding obligation. If it is decided not to monetize debts, there should be a good reason since the setting of the debts must involve out sort of costs. An efficient liquidity policy which term is used to cover monetary as well as debt policy is one that seems the desired

degree of non-spending or illiquidity at the least cost. A policy that does not meet the requirement is inefficient. Such a policy contains element of subsidy that are not within legitimate scope of action for stabilizing branch.

### **Types of Debt Instruments**

In purchasing illiquidity, the govt. may enter into a wide variety of debt contracts. These may differ with regards to maturity, marketability and money other features.

Maturity most important perhaps is the choice between obligations of differing maturity classifying claims accordingly spectrum ranking from claims of zero maturity over claims of finite security including short and long term obligations to obligations of infinite maturity of consoles claims of zero maturity including money but may also include savings bonds payable at a specified price on demand. Alternatively, the maturity for the particular bonds may be determined each year on a lottery basis as it is the widely in batch or the debt contract may entitle the lender to refund on a later date into specified due to be made available at that time.

**Marketability:** Variations in the degree of marketability provides second dimension of debt policy. In the case of marketable issue the treasury contract is with the bearer, whenever he may be the identity of the individual investor being of no importance. A distinction in principle may be drawn between consideration of maturity and marketability on the one side and a policy of restriction on the other. The use of restriction on the other hand introduce a policy similar to that of price discrimination by a monopolists. This raises the nice question of whether the rules of the game or the concept of efficient policy should be defined so as to permit or exclude discriminatory pricing and eligibility may be applied. If it is derived to subsidize particular groups to investors thus combing policies of the distribution branch with those of the stabilizing branch.

**To clarify matters, let us distinguish between four types of debt policies.**

- 1) The treasury doesnot use restricted debt and selects its debt instruments in such a way as to minimize cost in view of prevailing lender preferences.

- 2) The treasury does not use restricted debts and select its debt instruments and policies of restrictions so as to minimize cost.
- 3) The treasury uses restricted debt and fails to minimize cost.

Now it is evident that policy 3 will purcha

se a desired degree of liquidity at a lower cost than policy 1. but it does not follow that distributionally neutral policy should be defined in terms of policy 3. This is a normative matter

- 4) In the last resort it depends on how the proper state of distribution is to be defined.

## **RICARDIAN EQUIVALENCE**

The Ricardian equivalence proposition (also known as the Barro–Ricardo equivalence theorem is an economic theory holding that consumers internalize the government's budget constraint: as a result, the timing of any tax change does not affect their level of spending. Consequently, Ricardian equivalence suggests that it does not matter whether a government finances its spending with debt or a tax increase, because the effect on the total level of demand in the economy is the same.

### **Introduction**

In its simplest terms: governments can raise money either through taxes or by issuing bonds. Since bonds are loans, they must eventually be repaid—presumably by raising taxes in the future. The choice is therefore "tax now or tax later."

Suppose that the government finances some extra spending through deficits; i.e. it chooses to tax later. This action might suggest to taxpayers that they will have to pay higher tax in future. Taxpayers would put aside savings to pay the future tax rise; i.e. they would willingly buy the

bonds issued by the government, and would reduce their current consumption to do so. The effect on aggregate demand would be the same as if the government had chosen to tax now.

David Ricardo was the first to propose this possibility in the early nineteenth century; however, he was unconvinced of it. Antonio De Viti De Marco elaborated on Ricardian equivalence starting in the 1890s. Robert J. Barro took the question up independently in the 1970s, in an attempt to give the proposition a firm theoretical foundation. The proposition remains controversial.

### Ricardo and war bonds

In "Essay on the Funding System" (1820) Ricardo studied whether it makes a difference to finance a war with £20 million in current taxes or to issue government bonds with infinite maturity and annual interest payment of £1 million in all following years financed by future taxes. At the assumed interest rate of 5%, Ricardo concluded that...

In point of economy there is no real difference in either of the modes, for 20 millions in one payment, 1 million per annum for ever, or £1,200,000 for forty-five years are precisely of the same value.

However, Ricardo himself doubted that this proposition had practical consequences. He continued:

But the people who paid the taxes never so estimate them, and therefore do not manage their private affairs accordingly. We are too apt to think that the war is burdensome only in proportion to what we are at the moment called to pay for it in taxes, without reflecting on the probable duration of such taxes. It would be difficult to convince a man possessed of £20,000, or any other sum, that a perpetual payment of £50 per annum was equally burdensome with a single tax of £1000.

In other words, if people had rational expectations they would be indifferent between the two systems, but since they do not have them, they are subjected to a "Fiscal Illusion", which distorts their decisions.

## Barro–Ricardo equivalence

In 1974, Robert J. Barro provided some theoretical foundation for Ricardo's hesitant speculation (apparently in ignorance of Ricardo's earlier notion and De Viti's subsequent extensions). Barro's model assumed the following: families act as infinitely lived dynasties because of intergenerational altruism capital markets are perfect (i.e., all can borrow and lend at a single rate) the path of government expenditures is fixed.

Under these conditions, if governments finance deficits by issuing bonds, the bequests that families grant to their children will be just large enough to offset the higher taxes that will be needed to pay off those bonds. Among his conclusions, Barro wrote:

... in the case where the marginal net-wealth effect of government bonds is close to zero ... fiscal effects involving changes in the relative amounts of tax and debt finance for a given amount of public expenditure would have no effect on aggregate demand, interest rates, and capital formation. The model was an important contribution to the New Classical Macroeconomics, built around the assumption of rational expectations.

In 1979, Barro defined the Ricardian Equivalence Theorem as follows:

... shifts between debt and tax finance for a given amount of public expenditure would have no first-order effect on the real interest rate, volume of private investment, etc. noting that "[t]he Ricardian equivalence proposition is presented in Ricardo". However, Ricardo himself was skeptical of this equivalence.

## Criticisms

Ricardian equivalence requires assumptions that have been seriously challenged. The perfect capital market hypothesis is often held up for particular criticism because liquidity constraints invalidate the assumed lifetime income hypothesis. International capital markets also complicate the picture.

In 1976, Martin Feldstein argued that Barro ignored economic and population growth. He demonstrated that the creation of public debt depresses savings in a growing economy.

In that same year, James M. Buchanan also faulted Barro's model, noting that "[t]his is an age-old question in public finance theory", one already mooted by Ricardo and elaborated upon by De Viti. In particular, he criticized Barro for:

failing to compare the differential impacts of taxation and debt issue;

"superimposing" an issue of public debt without offsetting or compensating changes; erring in assuming the equivalence of the "helicopter drop" to currently old households and the sale of bonds on a competitive capital market, with the proceeds of this sale used to effect a lump-sum transfer to generation 1 household; not providing empirical evidence about the full discount of future taxes; not considering that, under his hypothesis, there should be roughly indifferent public reactions to a fully funded and to an unfunded pension system; not considering the political consequences of the equivalence.

In 2009, Paul Krugman ignited a debate among notable blogging economists and financial journalists when he grouped Barro with "first-rate economists [who] keep making truly boneheaded arguments against [organizing Keynesian stimulus]".

Barro's response

In 1976, Barro recognized that uncertainty may play a role in changing individual behavior. Nevertheless, he argued,

...it is much less clear that this complication would imply systematic errors in a direction such that public debt issue raises aggregate demand.

In 1989, Barro offered a number of defenses against various other critiques.

Empirical results

Ricardian equivalence has been the subject of extensive empirical inquiry. Barro himself found some confirmation in post WW I years.

## **Lesson-2**

### **BURDEN OF PUBLIC DEBT**

The classical view under the “self-liquidatory” or “pay as you use” approach holds that any loan which is incurred for a purpose that does not yield any direct monetary returns imposes a burden on the society. It is for this reason that additional taxation is required to meet interest costs and to repay the principal. The conventional view further maintains that public borrowing diverts savings for public use and thereby starves the private sector. They also think in terms of the shifting of debt burden to the future generation.

In Simple words it refers to the sacrifice and effects on the community through a rise in taxation at the time of repayment for paying the annual interest on the government loans. In other words, every government is bound to repay the public borrowing whether internally or externally with interest.

When the debt is incurred by the government the level of taxation has to be raised in order to meet the interest charges and the income of the people is transferred to the government and such a loss in the income of the people can be called as financial or primary burden of public debt.

Similarly, real burden implies that higher level of taxation due to rise of public debt has deep repercussions in the form of adverse effect on the capacity and willingness to work and capacity and willingness to save.

One should understand the difference 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. The secondary burden of the debt relates to the adverse effects of taxation upon the ability and willingness to work and on the capacity and willingness to save. These may be termed as to real burden of the public debt.

**There are two type of burden of public debt.**

- 1) Burden of internal debt
- 2) Burden of external debt

**Burden Of Internal Debt:**

As for as the burden of internal debt is concerned there may be no direct burden on the community as a whole, since the payment of interest and increased taxation to meet the burden of debt involves simply a transfer of purchasing power from one group to another. However while estimating the burden of public debt, the purpose of loan should be considered. If a loan is utilized for productive purpose, it can be paid out of the profit of the investment. But a loan to finance a war may be a dead weight and will have to be paid out by way of increased taxation. There is no burden involved in first case. In the second case It is also said that burden imposed by taxation upon the tax payer will be cancelled by the benefits received by the tax payer in the shape of interest on bonds. But is should be noted that if the rick pay in taxes proportionately less than the proportion of public securities held by them then there will be direct real burden on the community. Thus Dalton conclude that there is almost always a direct real burden, and

progressive taxation is not likely to be do “Sharply progressive as to counterbalance among the wealthier classes, the income derived from public securities. The burden of public debt is realized by the community in another way also viz. the government will tax the enterprise, patriotism, activeness and worth for the payment of public debt and this increased taxation payment of public dent and this increased taxation is for the benefit of whether passive, old and leisurely class is those who receive interest in lieu of their credit to the govt.

Finally the increased taxation of the payment of interest charges and the repayment of debt may consequently affect the power as well as the willingness to work and save. Hence, it is of utmost importance that debt repayment should be managed in such a manner that it may be adversely affect production and distribution

### **Burden of External Debt:**

Acc to Dalton, “as a general rule, an internal debt is likely to involve an additional and indirect burden on community, an external debt does the same”.

According to Dalton, “A loan is external if subscribed by persons or institutions outside its area”.

Borrowings from foreign individuals, associates belonging to the foreign countries and from foreign countries are called external public debt. In case of external debt money is paid top those living abroad for the loan of the capital used in production. Hence the repayment of interest on foreign debt reduces the net income of the debtor country by transferring a part of its income aboard, the payment of internal debt has no such effect. Hence the external debt imposes a greater burden than that of internal debt. Again the direct money burden of external debt is the money payments that have to be made of interest and the repayment of principle while the direct real burden in the net loss opf the debtor country in economic welfare.

The direct real burden of external debt also depends upon the purpose of which the debt is incurred. If the external debt is incurred to meet war expenditure, it may be called a dead weight debt, as it is unproductive in nature or it does not help in raising the production of the community. If the external debts are short term, the prosperity may escape from its burden as the

present general will repay it. But if external debt are for long term, the burden falls upon the prosperity. If external debts are incurred for productive purposes such as to import machinery, raw material, technical knowhow and other capital goods for the development of industry and agriculture and other sectors of the economy, the debtor country may be benefitted to the extent to nullify the real burden of external debt.

Finally, Shirras has described external debt as “External debt means the transfer of wealth from the lending to the borrowing country when the loan is made and on transfer in the reverse direction when interest is periodically paid or when the principal is repaid”.

It may be stated that the burden of external debt is greater than that of internal debt, because in the case of internal public debt there is mere a transfer of wealth from one section of the society to another. The tax payer and interest receivers are often the same people. In respect of external public debt, money is paid to those living abroad for the loan of capital used in the production. Hence, the payment of interest on foreign debt reduces the net income of the debtor country, by transferring a part of its income abroad. The internal debt has no such effect. Hence, external debt imposes a higher burden as compared to internal debt.

The direct burden of the an external debt would be arise only the productive capacity of the community suffers and this may be possible if the external debt is incurred for unproductive purposes and then it becomes a dead weight debt of to the community. Therefore it should be concluded that public debt for productive purpose is not a burden. They should not be discouraged so long as they are helpful for the development of the community as a while and in accelerating the economic growth of the borrower country’s economy.

### **Public Debt Management:**

Public debt refers to the debt policy which seeks to achieve the objectives and actual implementation of the policy. It also refers to various authoritative decisions. Public debt management includes the methods which are adopted by the Government through the process of floating, refunding and repayment of the public debt. The most important pre-requisite for an

efficient management of the public debt is that debt should be so issued, the pattern of maturity structure of the bonds should be so devised and bonds should be so redeemed so that the strains and frictions are kept at the minimum so as to gain the greatest economic advantages and least economic disadvantages. The reason for the necessity of public debt management is highlighted below:

1. The increase or decrease of the public debt has its repercussions priority of economy.
2. The policy of public debt has a significant role in the formation of economic policy of the country.
3. The changes in the utilization of public debt may hamper or foster the economic development of the country.
4. It is necessary to know the conditions which are essential for the implementation of planning policies.

### **Principles of Debt Management:**

According to Philip.E.Taylor, “Three general principles of public debt management can be identified.

1. The policies pursued must be able extract from the public without undue concession.
2. The extraction of loanable funds from the market and repayment of funds when debt is retained should serve and not frustrate the economic objective of stable growth.
3. The public debt should be so placed as to minimize the need to enter the market when it is inconvenient to do so.

However, the principles of debt management are elaborated as under:

#### **1) Minimum cost of serving Public Debt:**

The first and foremost principle of debt management should be that the interest rate on the Government obligations should be kept as minimum as possible. The structure of interest rate on securities on different maturities should be determined in such a manner that it may put less burdens on the economy. Here, one thing must be kept in

mind that low interest rate policy may create inflationary pressure when economy is already operating under full employment.

**2) Satisfaction of the Investors:**

It is argued that public debt should be managed in such a manner that it must satisfy the need of the investors. Such interests of the investors are concerned with the types of securities and terms issued. Therefore, the Government must offer attractive terms and conditions so that investors may invest their money in such securities. A govt. may find it difficult to manage if investors needs are not satisfied. For instance if the govt. desires to fund its short term debt into a long term debt, it will have to offer attractive terms on the long term securities such as higher interest rates on them or the government may offer to the security holders to convert long term securities into cash without any loss for purchase of new securities issued by the govt. In such a case the general liquidity of the public debt remains more or less the same. If the interest of the investor is kept on high side, the cost of public debt to the govt. may be come high. Therefore there are some who argue that cost of public debt should be reduced as it matures. But if it is serviced out by the issue of new currency it would create inflation and if it is serviced out through additional taxation it would be deflationary in its effect.

**3) Funding the Short term Debt into Long term Debt:**

Another principle of debt management is that it should help to convert short term borrowings into long term borrowings. But, at the same time, it must take proper precautions that economic stability is not disturbed at all. The funding operation should be done in such a way that the economic stability is not distributed. However the advantage offered by the policy are not very great because private short term debt would exit and complicate the monetary management. This policy would tend to raise the long rate of interest because the demand for long term fund will have to be increased, this will also increase the budget expenditure in future. Simultaneously it will reduce the short term interest rates 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 investments resulting in recession and unemployment. Hence the funding operation must be under taken in such a way that there is no undue rise in the long term interest rates. If the short term interest rates are low this may induce an outflow of short term capital into other countries where short term interest rates are high. This may not be in the interest of the country. Hence the funding of short term debt into long run in such a way that it satisfies the investors needs.

4) **Public Debt must be in Co-ordination with Fiscal and Monetary policies:**

For the proper implementation of the developmental schemes in the economy, Co-ordination of public debt with fiscal and monetary policy must be there. In the long run, it would lead to maintaining economic stability and economic growth. If the 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 an economic instability should be avoided by a proper co-ordination between the public debt and monetary policy. The public debt policy along the fiscal and monetary policy must be operated in such a manner that all the three policies contribute to economic stability and growth. Hence the repayment of public debt the conversion of existing debt and the terms on which the new securities are sold should contribute to growth and stability.

5) **Proper adjustment of Maturity:**

The ideal principle of debt management is that it must have proper adjustment of maturity with a view to bring high degree of liquidity in the market. Thus, monetary authority should work out a scheme which does not induce the holders of the debt to monetize their debt obligations before maturity time. 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 high degree of liquidity, which may contribute to inflationary pressure at a time when an anti-inflationary policy may be desirable. Thus, high liquidity of debt makes the control of inflation 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 be used as an anti-deflationary device by raising the price of

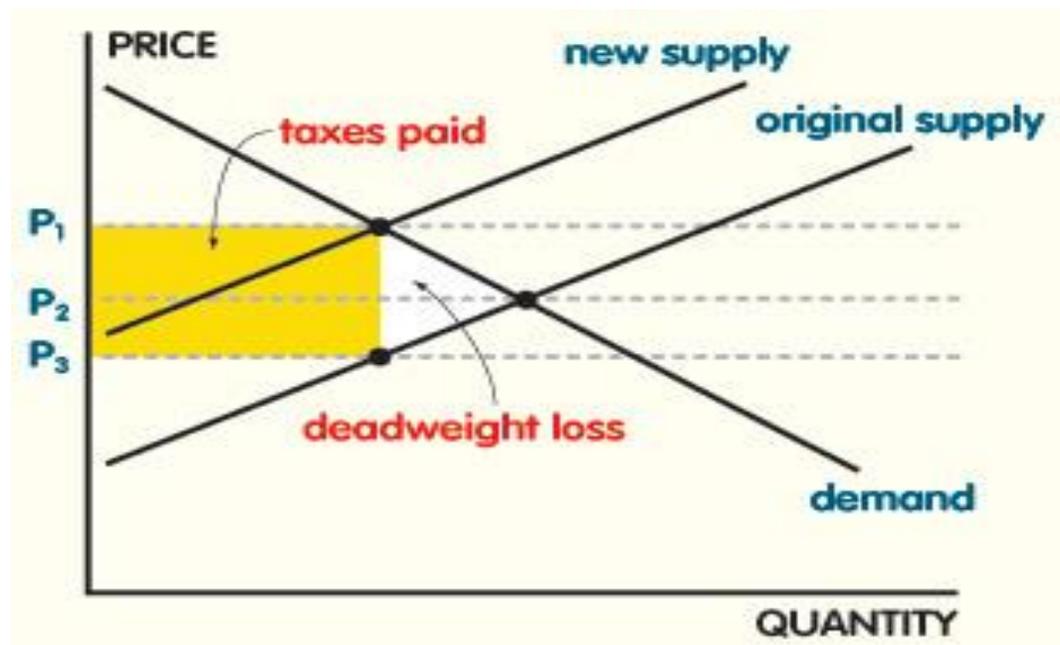
securities, there by inducing people to convert them into cash for increasing their aggregate expenditure.

### Lesson-3

#### Dead Weight Loss

The costs to society created by market inefficiency. Mainly used in economics, deadweight loss can be applied to any deficiency caused by an inefficient allocation of resources. Price ceilings (such as price controls and rent controls), price floors (such as minimum wage and living wage laws) and taxation are all said to create deadweight losses. Deadweight loss occurs when supply and demand are not in equilibrium.

Taxes are also said to create a deadweight loss because they prevent people from engaging in purchases they would otherwise make because the final price of the product will be above the equilibrium market price.



#### Taxation

## **Diamond-Mirrlees Efficiency Theorem**

In 1971, Peter A. Diamond and James A. Mirrlees published a seminal paper which showed that even when lump-sum taxation is not available, production efficiency is still desirable. This finding is known as the Diamond-Mirrlees efficiency theorem, and it is widely credited with having modernized Ramsey's analysis by considering the problem of income distribution with the problem of raising revenue. Joseph E. Stiglitz and Partha Dasgupta (1971) have criticized this theorem as not being robust on the grounds that production efficiency will not necessarily be desirable if certain tax instruments cannot be used.

A Pigovian tax is a tax applied to a market activity that is generating negative externalities (costs for somebody else). The tax is intended to correct an inefficient market outcome, and does so by being set equal to the negative externalities. In the presence of negative externalities, the social cost of a market activity is not covered by the private cost of the activity. In such a case, the market outcome is not efficient and may lead to over-consumption of the product. An example of such an externality is environmental pollution.

In the presence of positive externalities, i.e., public benefits from a market activity, those who receive the benefit do not pay for it and the market may under-supply the product. Similar logic suggests the creation of a Pigovian subsidy to make the users pay for the extra benefit and spur more production. An example sometimes cited is a subsidy for provision of flu vaccine.

Pigovian taxes are named after economist Arthur Pigou who also developed the concept of economic externalities. William Baumol was instrumental in framing Pigou's work in modern economics.

### **Pigou's original argument**

In 1920, British economist Arthur C. Pigou wrote *The Economics of Welfare*. In it, Pigou argues that industrialists seek their own marginal private interest. When the marginal social interest diverges from the marginal private interest, the industrialist has no incentive to internalize the cost of the marginal social cost. On the flip side, Pigou argues, if an industry produces a marginal social benefit, the individuals receiving the benefit have no incentive to pay for that service.

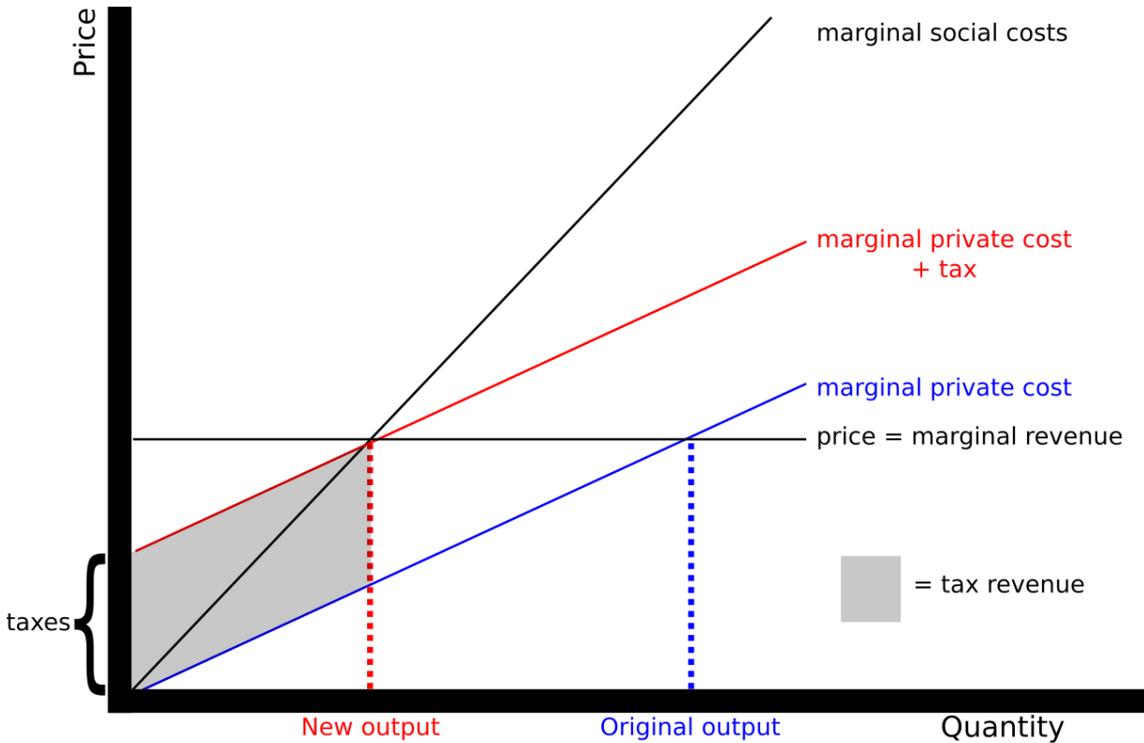
Pigou refers to these situations as incidental uncharged disservices and incidental uncharged services, respectively.

Pigou provides numerous illustrations of incidental uncharged disservices. For example, if a contractor builds a factory in the middle of a crowded neighborhood, the factory causes these incidental uncharged disservices: higher congestion, loss of light, and a loss of health for the neighbours. He also references businesses that sell alcohol. The sale of alcohol necessitates higher costs in policemen and prisons, Pigou argues, because of the crime associated with alcohol. In other words, the net private product of alcohol businesses is peculiarly large relative to the net social product of the same business. He suggests that this is why most countries tax alcohol businesses

The divergence between the marginal private interest and the marginal social interest produces two primary results. First, as already noted, the party receiving the social benefit does not pay for it, and the one creating the social harm does not pay for it. Second, when the marginal social cost exceeds the private marginal benefit, the cost-creator over-produces the product. Ultimately, because non-pecuniary externalities overestimate the social value, they are over-produced.

To deal with over-production, Pigou recommends a tax placed on the offending producer. If the government can accurately gauge the social cost, the tax could equalize the marginal private cost and the marginal social cost. In more specific terms, the producer would have to pay for the non-pecuniary externality that it created. This would effectively reduce the quantity of the product produced, moving the economy back to a healthy equilibrium.

Working of the Pigovian tax



Pigovian tax effect on output.

### **Pigovian tax effect on output.**

The diagram illustrates the working of a Pigovian tax. A tax shifts the marginal private cost curve up by the amount of the tax. If the tax is placed on the quantity of emissions from the factory, the producers have an incentive to reduce output to the socially optimum level. If the tax is placed on the percentage of emissions per unit of production, the factory has the incentive to change to cleaner processes or technology.

Lump-sum tax subsidy.

In 1980, a new critique of Pigovian taxes emerged from Dennis Carlton and Glenn Loury. They argued that Pigovian taxes alone would not create an efficient outcome in the long-run, because

the taxes controlled only the scale of the individual firms, not the number of firms in the particular industry. In the case of pollution, if the firms each produced a fraction of what they produced before, but the number of firms increased exponentially, the amount of pollution would still increase. To prevent this, Carlton and Loury recommend a policy with the potential to regulate the number of firms in an industry: lump-sum taxes or lump-sum subsidies.

Carlton and Loury present four basic arguments in their article. First, Pigovian taxes work in the short-term, because the number of firms cannot vary. Second, Pigovian taxes do not work in the long-term because the number of firms can vary. Third, an industry with a specific number of firms and scale can achieve the long-run social optimum (LRSO). The best option is to add an entry tax for potential firms and a subsidy for current firms to restrict a movement in the number of firms. Fourth, it is possible for a tax policy to create a LRSO.

Robert Kohn responded to this article in “The Limitations of Pigouvian Taxes as a Long-Run Remedy for Externalities: Comment,” saying that a Pigovian tax on pollution emissions can, in fact, create the long-run social optimum without a lump-sum tax-subsidy. Carlton and Loury responded the same month, clarifying that they were discussing a Pigovian tax on output; whereas, Kohn was discussing a Pigovian tax on emissions. Carlton and Loury provide numerical proofs as to why these are different. Ultimately, they argue that there are some cases in which a single tax on emissions will produce the LRSO and others in which a single tax on output will attain the LRSO. Either case only works with the taxes properly determined.

### **Double dividend hypothesis**

In a 1997 paper, Don Fullerton and Gilbert E. Metcalf evaluated the double dividend hypothesis. They define the double-dividend hypothesis as the theory that environmental taxes can improve the environment and increase economic efficiency simultaneously. Either motivation can legitimately support a tax reform. The first dividend intuitively makes sense: decreasing pollutant emissions improves the environment. The improvement in economic efficiency results from a shift away from distorting taxes such as the income tax. Fullerton and Metcalf note that for every \$1 extracted in taxes, a \$1.35 burden falls on the economy. In a sense, the private

sector must swallow a 35 cent excess burden for no particular reason. The second dividend aims to eliminate some of this excess burden.

Tempting as it may be to try, Fullerton and Metcalf argue, the validity of the double-dividend theory cannot be established as a whole. An observer must evaluate each circumstance individually. Fullerton and Metcalf do provide guidelines for this analysis. Two questions help shape this analysis: what is the status quo? What are the specifics of the reform? The amount and nature of the current taxes, permits, and regulations greatly influence the results of the additional tax. Also, where the tax revenue goes greatly affects the success of the tax.

Secondly, Fullerton and Metcalf say the previous literature on Pigovian taxes focused too heavily on the revenue dividend and too lightly on the environmental dividend of environmental taxes. His predecessors naively value revenue too much, Fullerton and Metcalf argue, because they fail to recognize that all taxes impose costs on someone. These taxes could outweigh the environmental benefit. Thus, the government must use the Pigovian tax revenue to lower another tax if it wants to minimize the economic damage of a tax.

Fullerton and Metcalf also mention that the effectiveness of any sort of Pigovian tax depends on whether it supplements or replaces an existing pollution regulation. If the tax replaces a pollution regulation, it will most likely be environmentally neutral, even if it is revenue-positive. If it supplements the regulation, it may or may not be environmentally and revenue-neutral, depending on the effectiveness of the original regulation. The status quo substantially affects the outcome of a proposed tax.

### **Pigovian Tax and Distortionary Taxation**

A. LansBovenberg and Ruud A. Mooij argue that there is a first-best case scenario and a second-best case scenario in their article "Environmental Levies and Distortionary Taxation." In the first-best case, the government does not need to get revenue from distortionary taxes such as the income tax, and the Pigovian tax can create the long-run social optimum. In the real world, second-best case, the status quo includes an income tax that distorts the labor supply. In this

situation, Bovenberg and Mooij write that the best tax comes in below the level of the Pigovian tax.

Bovenberg and Mooij establish that households consume a dirty good (D) and a clean good (C). If the government taxes D, it can use the earned revenue to lower the labor income tax. At the same time, the tax levied on the firm will increase the price of D. The lowered income tax and the higher consumer prices even each other out, stabilizing the real net wage. But because C's price has not changed and it can substitute for D, consumers will buy C instead of D. Suddenly the government's environmental tax base has eroded and its revenue with it. The government then cannot afford to keep the labor income tax down. Bovenberg and Mooij posit that the increase in the price of goods will outweigh the slight decrease in the income tax. Labor and leisure become more interchangeable the lower the real net wage (or after-tax wage) falls. With this decrease in the real net wage, more people leave the job market. Ultimately, labor bears the cost of all public goods.

Goulder, Parry, and Burtraw agree that that the net social welfare after the implementation of a tax hinges on the preexisting tax rate. Don Fullerton agreed with this analysis in 1997 in his article "Environmental Levies and Distortionary Taxation: Comment." He added that lowering the income tax and taxing the dirty good equates with raising the labor tax and subsidizing the clean product. These two policies create the same effects, Fullerton says.

In 1998, Fullerton and Gilbert E. Metcalf explain this theory more thoroughly. He begins by defining terms. The gross wage reflects the pre-tax wage a laborer receives. The simplest form of the net wage is the pre-tax wage minus the income tax. In reality, however, the net wage is the gross wage times one minus the tax rate, all divided by the price of consumption goods. With the status quo income tax, deadweight loss exists. Any addition to the price of consumption goods or an increase in the income tax extends the deadweight loss further. Either of these scenarios lowers the net wage, reducing the supply of labor offered. Supply of labor decreases because of the labor/leisure interchange. If someone gets paid very little, he or she may decide it is no longer worth his or her time to continue in that job. Thus, employment decreases. If the Pigovian tax, which increases the price of consumption goods also decreases the income tax, replaces the income tax, Fullerton argues that the net wage is not affected.

## **Alternatives**

The Pigovian tax is a commonly used method by government as it has relatively low transaction costs associated with implementation. Other methods such as command and control regulations or subsidies assume that government have a complete knowledge of the markets which is almost never the case, and can often lead to inefficiencies and market failure though rent seeking behavior by individuals and firms.

## **No intervention**

Economist Ronald Coase argued that individuals can come to an agreement with an efficient result without the need for a third party when transaction costs are low. He says it is less expensive and less difficult for two neighbors to come to an agreement about a fence, the amount of noise, or the amount of smoke than it is for these two neighbors to approach a third party to solve the situation for them. Even when several parties are involved, outside interference could result in an inefficient outcome.

## **Firm limits**

Instead of taxing the negative externality producer, government could regulate the production of that negative externality. Fullerton and Metcalf argue that restricting the amount of pollution that all firms in an industry can produce will indirectly reduce the output of all firms. This comprehensive supply reduction will automatically raise the consumption price of the good. These types of command-and-control restrictions stimulate cartel-like profits. Fullerton and Metcalf assert that production costs do not change, and assert that the companies can earn profits over and above what is earned before the regulations even with selling a lower quantity of goods. If the production cost of all firms increased simultaneously due to a regulation, the firms may be

able to increase the price uniformly. They do not consider the elasticity of products and that's effect on the quantity of demand and the industry's final profits.

## **Cap and trade**

Another alternative to applying Pigovian taxation is for government to place a limit on the total amount of the negative externality and create a market for rights to generate this specific negative externality. In the United States since the late 1970s, and in other developed nations since the 1980s, the concept of a market for "pollution rights" has arisen. Giving out the rights for free (or at less than market price) allows polluters to lose less profit or even gain profits (by selling their rights) relative to the unaltered market case.

Goulder, Perry, and Burtraw suggest that selling permits to firms is the best option, but recognize that many firms in the status quo are grandfathered in, meaning they are given exemptions. The authors include an example of the U.S. regulations in coal-fired electrical power plants that require the reduction of 10 million tons of sulfur dioxide emissions. They estimate that more than half of the \$907 million pre existing taxes could have been eliminated by auctioning off the permits rather than grandfathering them.

## **Criticisms**

Most of the criticism of the Pigovian tax relates to the determination of the tax and the implementation. Pigou and Friedrich Hayek point out that the assumption that the government can determine the marginal social cost of a negative externality and convert that amount into a monetary value is a weakness of the Pigovian tax. William Baumol suggests that the measurement of social cost is almost impossible. Ronald Coase argues that all social costs are reciprocal in nature, so, once the tax is set, it must not be changed. Others assert that political factors can complicate the implementation of a Pigovian tax.

## **Measurement problem**

Arthur Pigou said: "It must be confessed, however, that we seldom know enough to decide in what fields and to what extent the State, on account of [the gaps between private and public costs] could interfere with individual choice." In other words, the economist's blackboard "model" assumes knowledge we don't possess — it's a model with assumed "givens" which are in fact not given to anyone. Friedrich Hayek would argue that this is knowledge which could not be provided as a "given" by any "method" yet discovered, due to insuperable cognitive limits.

William Baumol argues that it is extraordinarily difficult to measure the social costs of any externality, especially because many costs are psychological and individual. Even if a measurement of the psychological effect of some externality did exist, it would be impossible to collect that data for all individuals affected and then find the optimum output level. If experts could find the optimum output level, it would be easier to find the optimum Pigovian tax level to achieve that optimum. In the end, Baumol argues that the best solution is to set a minimum standard of acceptability for negative externalities, and create tax systems to achieve those minimum standards. Baumol points out that government committees have a tradition of agreeing on minimum standards, so the practicality of this solution is reasonable.

Peter Boettke brings forth that "The Pigouvian remedy was to bring marginal private costs (subjectively understood) into line with marginal social costs (objectively understood). The problem, James M. Buchanan pointed out, was that the analyst had to specify the conditions under which objectively measurable costs could be ascertained by economic and policy actors. In general competitive equilibrium there are also no deviations between marginal private costs and marginal social costs. In other words, Buchanan (like Ronald Coase) pointed out that Pigovian tax remedies are either possible and redundant, or impossible to set because the conditions presupposed for their establishment either eliminate their necessity or (if absent) preclude their enactment." In other words, "Karen I. Vaughn has pointed out the dilemma involved in this situation. To calculate the appropriate corrective tax, the policymaker must know the equilibrium price; yet the situation demanding correction implies a disequilibrium situation."

## **Reciprocal cost problem**

Ronald Coase argues that the tax placed on an industry creating a negative externality should not be changed after it is implemented. The crux of his argument is that all social costs are reciprocal in nature. Coase argues that a factory emitting smoke is not entirely responsible for the social harm of smoky air. If the factory were not there, no one would suffer from smoky air, and if the people were not there, no one would suffer from smoky air. Because of this reciprocity of harm, Coase argues that neither party bears sole responsibility for the social harm, so neither party should pay the full cost.

The social harm gets worse, Coase argues, if only one offender pays for the social harm. If the smoke-emitting factory must pay dearly for all its smoke, it will reduce its quantity of production or buy the necessary technology to reduce its smoke rate. With the advent of clean air, neighbors may move into the area. This immediately increases the marginal social cost of smoke, which would require a tax increase on the factory. Essentially, each time the tax increases, the population increases and the marginal cost of the status quo increases again, so the factory is punished for making conditions good enough that people want to move there.

One complexity of this situation is the multiple local maxima, or the interchangeable best-case scenarios. It all hinges on the numbers. If the cost of abating all smoke is more than the cost to move the neighbors out, the neighbors should move out and let the factory continue emitting smoke. On the other hand, if it costs less to abate the smoke than to move the neighbors, then the factory ought to pay the tax or buy the clean technology to provide clean air for the surrounding residents. Once the optimum solution is implemented, Coase argues that the tax should not change, regardless of changing circumstances. In this case, if a tax is imposed on the factory and some more neighbors move in, the factory tax should not increase.

### **Political problem**

Political factors such as lobbying of government by polluters may also tend to reduce the level of the tax levied, which will tend to reduce the mitigating effect of the tax; lobbying of government by special interests who calculate the negative utility of the externality higher than others may also tend to increase the level of the tax levied, which will tend to result in a sub-optimal level of production.

Earl A. Thompson and Ronald Batchelder cited one political problem with Pigovian taxes being that if a firm can influence the tax rate or regulations put on it, the results will not be as certain as Pigou and Baumol suggested. Baumol responded to this, saying that almost all discussions on Pigovian taxes include the assumption of pure competition. This certainly does alter the scenario, but the literature had not ignored it; it had merely used a different set of assumptions.

Thomas A. Barthold argues in 1994 that actual policy decisions often come from budget requirements, not concern for the environment. The taxes do not always parallel raw economic theory because social benefits and costs are hard to measure. He uses the 1989 Montreal Protocol as an example. President George H. W. Bush signed this protocol that allowed either a permit auction or a tax on ozone-depleting chemicals. Barthold attributes the decision to implement the tax to the pressure on the Ways and Means committee to come up with more consistent revenue.

The tax policy also did not accord with basic common sense economic principles. For one, it makes sense to impose a tax on the industry that creates the pollution problem, on the activity that emits the harmful chemicals. This particular activity happened to be the use of automobiles with leaky compressor systems, but because of the high administration cost of taxing that many people, the government decided to tax the producers of those chemicals, though they contributed nothing to the actual problems of chlorofluorocarbons in the atmosphere.

Another evidence of the alternative motivations for this policy is the fact that the base tax increases annually. Does the harm from chlorofluorocarbons increase every year and in the same increment? Who is to say that \$1.37 per pound of chlorofluorocarbons is an accurate description of the marginal social cost of pollution? The conspicuous hike in the tax in 1992 that equalized the Energy Policy Act's budget ignited Barthold's suspicions. Additionally, exporting firms should not receive exemptions from environmental taxes simply because they are exporting goods. If the motivation for this tax was simply the first dividend, environmental improvement, then all firms, whether or not they export, would be taxed.

Aside from this frustration, Barthold noted that politicians often prefer regulations with obvious benefits and hidden costs over regulations with hidden benefits and obvious costs. This is one reason why politicians often prefer to hand out permits to firms rather than impose a tax on them,

even though the tax is more economically efficient. Free permits create winners of grandfathered firms and losers of the consumer who has to pay more for the same product. According to Barthold, taxation makes losers of the factory producers and indirect winners of the consumers.

## **OPTIMAL TAXATION**

Optimal tax theory addresses such questions as: Should the government use income or commodity taxes? Within commodity taxes, how should tax rates vary across commodities? How progressive should the tax system be?

Optimal tax theory encompasses a range of models that focus on particular aspects of the tax system. These different models share three features. First, each model specifies a set of feasible taxes for the government, such as commodity taxes, and the government's revenue needs. The models typically rule out lump-sum taxes, which would cause no economic distortion. Second, each model specifies how individuals and firms respond to taxes. That is, individuals have preferences about goods and lei-sure; firms have a given technology for producing goods; and individuals and firms interact in a given market structure (often perfect competition). Third, the government has an objective function for evaluating different configurations of taxes. In the simplest models, the government's objective is to minimize the excess burden generated by the tax system while raising a set amount of revenue. The more complicated models balance efficiency considerations with equity concerns. The models that include equity are usually more concerned with vertical equity rather than either horizontal equity or the benefit principle.

One of the oldest strands of the optimal tax literature is the optimal configuration of commodity tax rates. The basic question is whether uniform commodity tax rates—taxing all goods and services at the same rate—are optimal. This problem is commonly referred to as the Ramsey problem after the solution proposed by Frank Ramsey in his 1927 article. The short answer is that, abstracting from the collection costs of administering differentiated tax rates, uniform commodity taxes are rarely optimal.

The simplest version of the Ramsey problem is a static model (i.e., a one-period model without saving) with a representative consumer (alternatively, the model could have many consumers with the same demand functions). The government's objective is to raise a given

amount of revenue while minimizing the distortions (excess burden) created by the tax system. This formulation minimizes economic distortion without concern for the fairness of the tax system. The feasible set of taxes includes flat rate taxes on different goods and services but excludes taxes on wage income. Uniform commodity taxes have the appeal of raising all prices by the same magnitude, and thus not distorting the relative prices of different goods. This simple intuition has two problems. First, it ignores the fact that commodity taxes cannot directly tax one especially important good: leisure. Second, it implicitly assumes that supply curves are perfectly elastic so that consumers bear the entire incidence of the taxes.

By maintaining the assumption that supply of all goods is perfectly elastic, Ramsey's solution to this problem yields an elegant rule: The optimal set of commodity taxes leads to an equal percentage reduction in the compensated (Hicksian) demands for all goods. (The compensated demand for a good is derived by fixing utility and calculating how demand changes with a change in price. The compensated demand functions capture the substitution effect of price changes without measuring the income effect.) Thus, rather than having each *price* change by an equal percentage as would be implied by uniform taxation, the optimal tax system has an equal percentage change in the *quantities* of each good. Corlett and Hague (1953) proposed an alternative interpretation of the Ramsey rule. They point out that the optimal tax rates on different goods depend upon the relationship between the demand for the good and leisure. The optimal configuration of commodity taxes has higher tax rates on complements to leisure and lower tax rates on complements to working. The intuition is that, because leisure is the untaxed good, taxing goods that are complementary to leisure implicitly taxes leisure.

Some of the many extensions to the Ramsey problem provide intuition about possible policy prescriptions. In the special case that demands for different goods are unrelated (i.e., the demand for one good does not depend on the price of other goods), the Ramsey rule simplifies to the "inverse-elasticity rule." The inverse-elasticity rule states that tax rates should be inversely proportional to their elasticity of demand. Goods for which demand is inelastic should have a high tax rate since changing their prices does not create much distortion. Conversely, the government should set lower tax rates on price-elastic goods since small price changes may create large distortions in the quantity demanded.

One criticism of the Ramsey solution, especially the special case of the inverse-elasticity rule, is that the solution may require higher taxes on necessities than on luxury goods since necessities often have relatively inelastic demands. Diamond (1975) extends the Ramsey problem to allow for households with different tastes and incorporates concerns for fairness among the different types of households. In Diamond's model, the government's social welfare function is a weighted average of the utilities of individual consumers. The social welfare weights for the households could depend on the well-being of the household, with higher weights for less-advantaged households. Incorporating fairness into the Ramsey problem modifies the basic result so that the percentage reduction in goods consumed heavily by the households favored by the government (often assumed to be the poorer households) is smaller than the percentage reduction in the goods consumed by households with lower weights in the social welfare function. Thus, equity can be introduced into the optimal commodity tax system by having higher taxes on the goods consumed pre-dominantly by the rich. This result accords with the intuition behind many state governments exempting groceries from their sales tax bases: Because poor people spend a higher fraction of their income on groceries than rich people, the exclusion of groceries from the sales tax base adds fairness to the tax system. This exemption is counter to the basic Ramsey rule because grocery demand is relatively price inelastic.

Another branch of the optimal taxation literature addresses the optimal design of income (direct) taxes. As with optimal commodity taxation, the basic models are static, so they focus primarily on labor income rather than saving decisions or capital income. However, more recent models have added inter-temporal saving and investment decisions.

Static models of optimal income taxation are of two types: linear and nonlinear (general) income taxes. Linear income tax systems have two parameters, a demogrant and a marginal tax rate. The demogrant can either be a lump-sum grant of money to each individual, in which case it provides a guaranteed income to each individual, or a lump-sum tax. The marginal tax rate on income distorts the labor supply decision and thus has an efficiency cost. By choosing both parameters, the government can simultaneously raise revenue and redistribute income across income groups. The optimal choice of parameters depends on: (1) how much revenue the government needs to raise; (2) society's preferences for redistribution, as summarized by a social welfare function; (3) how responsive individuals' labor supply decisions are to changes in the

after-tax wage; and (4) the distribution of pretax wages in the economy, which determines the inequality of the pretax income distribution. Stern (1976) provides examples suggesting that (1) the optimal linear income tax is quite sensitive to these parameters, and (2) even if society has an extreme aversion to inequality, the marginal income tax rate is less than 100 percent.

General, nonlinear income tax systems allow the marginal tax rate to change continuously with the level of income. As with linear income tax systems, the goal of a nonlinear tax system is to raise revenue (as evidenced by positive average tax rates) in an equitable fashion while minimizing economic distortions created by nonzero marginal tax rates. The problem facing the government is that people have different innate ability levels that the tax authorities cannot observe. If the government could observe these ability levels, then it could levy non-distortionary individual-specific taxes on ability. As a proxy for taxing ability, the government taxes income but must recognize that the income tax gives people incentives to change how hard they work to escape taxation.

The degree of abstraction in models of optimal nonlinear income taxes has limited the policy relevance of their results. One often-cited result is that the marginal tax rate on the highest-income person (who has, presumably, the highest ability) is zero. The intuition behind this result is that a nonzero marginal tax rate distorts the labor supply of the highest-ability person. If this tax rate were changed to zero, the highest-ability person might work more, which would make that person better off (having the choice of whether to work more). However, government revenue would not change, because with a positive tax rate, this labor is not provided, and with a zero tax rate, the extra labor supply is not taxed. The logic of this argument applies only at the top of the income distribution, because changes in marginal tax rates below this level affect the taxes paid by people with higher incomes. Unfortunately, this result does not give any information about how high marginal tax rates should be just below the top of the income distribution. Also, from a practical standpoint, it is almost impossible to determine the “top” of the ability or income distribution.

As suggested from these results, the outcomes from optimal tax models depend on the set of possible taxes the government can implement. A long-standing debate surrounds the choice between indirect (e.g., commodity) and direct (e.g., income) taxation. That is, when the

government can use both direct and indirect taxes, what is the optimal mix of taxes? Atkinson and Stiglitz (1980) show that commodity taxes are a relatively inefficient way of increasing the equity of a tax system that includes an optimally designed income tax. However, there may be administrative reasons for using indirect taxes.

One major consideration in designing an optimal tax system is how taxes interact with market imperfections. Externalities, such as pollution, are one example of a market imperfection that can affect optimal tax policy. Taxes on activities that create externalities can be one mechanism to reduce the economic inefficiency caused by externalities. For example, a tax on polluting may have the social benefit of reducing the level of pollution. Optimal tax models aimed at correcting externalities suggest that the optimal tax balances the marginal social damage from the externality with the marginal social benefit of the activity that generates the externality. The optimal tax does not necessarily eliminate the activity that generates the externality; for example, even with an optimal tax there may still be some pollution. For more on the corrective role of taxes in the case of externalities, see Baumol and Oates (1988).

### **Tax Revenue:**

Generating a sufficient amount of revenue to finance the government is arguably the most important purpose of the tax system. Optimal taxation is the theory of designing and implementing taxes that reduce inefficiency and distortion in the economy through optimum moves given under the constraints, is constantly debated. Though, inequality will always exist within even the most efficient in the market, the goal of taxation is to eliminate as much inefficiency as possible and to raise the revenue to fund Government expenditures.

### **Horizontal and Vertical Equity:**

While discussing what a fair and optimal tax level would be, the principle of equity, both horizontal and vertical, is important. Equity is determined by assessing an individual's ability-to-pay considers whether or not fair to tax someone higher just because that he has ability and resources to pay. If it is decided that they should pay more, then the question arises how much more? These questions can be analyzed by the horizontal and vertical equity which are the subsets of the ability-to-pay principle. Horizontal equity suggests that it is fair for people of same

ability to pay the same amount of taxes. Vertical equity refers to the idea that if individual has a higher income then he should pay more tax than the individual who has low income, as long as it is not reasonable to increase the level of tax.

### **Lump-Sum Taxes:**

Lump-Sum taxes are one type of taxes which does not create a large excess burden is called lump-sum tax. A lump-sum tax is a fixed tax that must be paid by everyone and the amount a person is taxed remains constant regardless his income or owned assets. This tax does not create a large excess burden because this tax does not alter economic decisions of the economy because this tax remains constant. Individual's incentives and firm's incentives will not fluctuate like, e.g. a graduated income tax that taxes people for earning more lump-sum taxes can be either progressive or regressive, depending on what the lump-sum is being applied for.

### **PROBLEM OF DOUBLE TAXATION**

A tax system that depends on a number of taxes is called the system of multiple taxes. It means several types of taxes are imposed in the system of multiple taxation. But double taxation means that the taxing authority taxes the same base in more than one way. For instance, if the state levies a tax on income and tax expenditure, the same income is taxed twice. Suppose a man earns his income in India and England. If the government of both the countries tax this man on his entire income it becomes a case of double taxation of income. Again if the government of a country taxes the profits of a joint stock company before, they are distributed and then tax the individual shareholders on the dividends. Another characteristic of double taxation is that the two taxes should have reference of the same period of time. For instance, the government of a country taxes you on your income this year and again next year that does not constitute a case of double taxation. It is concluded that double taxation means taxation of the same thing twice either by the same authority or by different authorities.

**Characteristics of double taxation:** Double taxation has characteristics like:

1. Double taxation exists when the taxing authorities taxes the same base in more than one way. For instance, if state levies a tax on income and another tax on expenditure, the

same income is taxed twice. For double taxation, it is required that they should be levied on the same thing or on the same tax base. It is necessary for a case of double taxation that the two taxes should not be paid out of the same thing i.e. income.

2. Another characteristic of double taxation is that the two taxes should have reference to the same period of time. For example, the government of a country imposes income tax this year and again next year. This does not constitute a case of double taxation, for it is not the same income that is taxed twice. Hence, double taxation means taxation of the same thing twice either by the same authority or by different authority.

The major type of double or multiple taxation under single taxing authority is as follows:

- The property may be taxed, on the basis of income yielded by it and again on the basis of its capital value. In this case, the same property is subject to taxation on the basis of two different criteria.
- The income may be taxed when it is received and also when it is spent. In this case the tax base is income which is taxed at two different stages.
- A tax may be imposed on the corporate profits and again on the dividends received by the shareholders. In this case the tax base is profits and the shareholders are taxed on the different stages: pre-distribution and post-distribution of dividends.
- A tax may be levied on those who receive income and also on those from whom it is received. For instance, a tax may be imposed on rental incomes or interest received and then it may be imposed upon those who make these payments.

### **Forms of Double Taxation**

Double taxation can be placed under the broad categories

- 1) The double taxation caused by two competing authorities levying the tax on a person.
- 2) The double taxation due to the same taxing authority taxing the same thing twice.

Thus double taxation places an artificial impediment on the free flow of capital and other resources such as the services of technicians and experts between the different countries. To put it in the words of Findlay Shirras, “Double taxation, thus, is a barrier which tends to keep capital within national frontier and to prevent it from flowing freely over such frontiers”.

Prof. Seligman has mentioned that there are three principal ways in which double taxation arises.

- 1) He pointed that double taxation arises when a company's profit is taxed before distribution and then the shareholder's dividend is taxed again.
- 2) The another case of double taxation by the same authority may arise when debtor and creditor are both taxed on the amount of a loan.
- 3) The third case of double taxation may arise when both capital and income are taxed. Irving Fisher said that the income is derived from capital goods but the value of capital goods is derived from income. Thus to tax a capital is just to tax the expected income out of it and it becomes a case of double taxation.

Besides, there are some who pointed out that income tax leads to double taxation on saving. Prof. J.S Hill pointed out that in case of general tax from which saving are not specifically exempted saving are taxed twice as compared with income spent which is taxed only once.

In words of Prof. Pigeon on income tax “Differentiated against savings by taxing saving both when they are made and also when they yield their fruits.”

### **EFFICIENCY AND EQUITY TRADE OFF:-**

When determining economic policy, Govt. are concerned / faced with two conflicting aims. All governments are concerned with organizing economic activities so that the best use is made of resources. This is efficiency side of the policy design. To varying degrees, governments are also concerned to see that the benefits of the economic activity are distributed fairly. This is the equity aspect of policy design.

The difficulty facing the government is that the requirements of the equity and efficiency frequently conflicts. It is often the case that the efficient policy is highly inequitable while the equitable policy can introduce significant distributions and disincentives. Given this fact, the challenge for policy design to reach the correct trade-off between efficiency and equity. Quite where on the trade-off the govt. should locate depends on the relative importance it assigns to equity over efficiency.

A standard simplification is to assume that there is a single consumer or that all the consumers are identical. In such a setting, there can be no distributional issues, so any policy recommendations derived within it relate only to efficiency and not to equity. The reasons for proceeding in this way is that it usually permits a simpler analysis to be undertaken and for the conclusions to be much precise. Interpreting such conclusions in terms of practical policy recommendations, these bases should never be overloaded.

#### **Lesson-4**

##### **Incidence of Taxation:**

##### **Statutory Incidence, Economic Incidence And Tax Shifting:**

We know that taxes are not voluntary purchase payments but mandatory impositions payable in line with whatever statute has been legislated. Although, these statutes in the end are a reflection of voter's preferences, once legislated they become mandatory levies, imposing burden which the individual tax payer will try to avoid or pass on to others.

Statutory incidence may be different from economic incidence because of the process of shifting the tax burden. For example, the imposition of an income tax may lead to reduce working hours, thereby driving up the gross wage rate and burdening the consumer. Or, an automobile excise duty levied on the sellers may cause them to raise their prices, hoping to pass the burden of the tax to buyers, who in turn attempt to avoid it by substituting other purchases. In each case the tax payer's ability to make such adjustment will depend on the willingness of the other transactor to go along. The process of shifting the tax burden may lead to final distribution of the burden or economic incidence.

Thus in brief, statutory incidence is the legal liability for the payment of tax on the individuals and business firms. It indicates the impact point. The process of its transfer is known as shifting of the tax. The settlement of the ultimate burden of the tax is called its incidence.

### **Impact and incidence of a Tax:**

The terms impact and incidence of taxation may be distinguish as follows:

- Impact refers to the initial burden of the tax while incidence refers to the ultimate burden of the tax.
- Impact is at the point of imposition but, incidence occurs at the point of settlement.
- The producers may succeed in collecting it from consumers by raising the prices of detergents by the amount of the tax.
- The impact may be shifted but incidence cannot. Incidence is the end of shifting process.

### **Incidence and Effects of taxation:**

The term incidence and effects of taxation have different meanings in economic analysis. Incidence refers to the eventual money burden of the tax. Effects of taxation refers to the economic consequences of a tax on production and distribution. Effects imply the real burden of taxation on the production and distributional aspects in the economy.

### **Forward and Backward shifting of a tax:**

Shifting of tax is possible in two ways:

1. Forward.
2. Backward.

When a manufacturer or a dealer who is dealing in commodity which has been taxed, tries to shifting the tax by raising the price of a commodity to the consumer, it is known as forward shifting. It is so, because after production, sale is the next step forward i.e., increasing the price in the process of sale. It is called forward shifting.

Backward shifting implies a step backward i.e., shifting the tax to the process of production or manufacture. In other words, backward shifting of the tax implies that the producers are 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 before e.g. reducing the wages of the laborers' for the same work as before, the tax is shifted backward. Backward shifting may be possible if the efficiency of the labor rises. Laborers may, however, be paid less. This is cost reduction. Organized labor may resist backward shifting of a tax. Backward shifting may be in the form of lower prices of the raw materials.

### **Theories Of Shifting:**

The theory of tax shifting over much of its development to those pioneers, Adam Smith and David Ricardo, who treated taxation in relation to the problem of value and distribution.

The concentration theory: Physiocrats have advanced the theory that all taxes ultimately concentrated on a particular object. The physiocrates were convinced that all taxes, however, were imposed concentrated on income for Wagon tended to remain at subsistence level and could not be taxed and interest was like wise a necessary payment for the use of capital on which the taxes could not rest. The land owner paid all taxes in the end because all taxes gravitate towards the net product of land. The physiocrates contention that agriculture alone is productive has been condemned by Adam Smith.

### **The Diffusion Theory**

Contrary to concentration theory that all taxes concentrate upon land income or other objects, the diffusion theory asserted that all taxes are diffused among the members of a community. This theory was advanced by some economist like Manofield and Canard. They were convinced that all taxes were equitably diffused all over the society. In other words the individual from whom the tax is collected do not ultimately bear the whole burden but shift it on the other classes, so that it is diffused all over the society. To put it in the words of Manofield, "a tax is like stone falling into a lake and making a circle till one circle produce and gives motion to another and the whole circumference is agitated from the centre.

Canard believed that labour and capital as well as land produce taxable surplus and through buying and selling or business transactions all taxes are diffused among the members of the society and rest upon the surplus income.

**Demerit of the theory:**

- 1) Walker assume that theory is based upon the assumption of perfect competition but perfect competition cannot exist where there is ignorance, inertia, poverty and fear in community.
- 2) It does not prove where and in what proportion the actual incidence of a tax reaches. hence it does not explain how the incidence of tax is to be determined.
- 3) The theory is therefore shallow and misleading as it avoid the question of justice in taxation. It assumes that no tax is just or unjust. Taxes need are often widely diffused, but this theory ignores the fact that this diffusion does not take place automatically has to take certain measures for bringing about the just and equitable distribution of the burden of taxes.

Theory of taxation

Several theories of taxation exist. Governments at all levels (national, regional and local) need to raise revenue from a variety of sources to finance public-sector expenditures. The details of taxation are guided by two principles: who will benefit, and who can pay.

Public expenditure

Public expenditure concerns the optimal provision of public goods. In public-finance literature, there are two theories: the ability theory (presented by Arthur Cecil Pigou) and the benefit theory (developed by Erik Lindahl).The benefit theory has a modern version, known as the "voluntary exchange" theory. It is from the 1939 paper "Voluntary Exchange Theory of Public Economy" that "The Musgrave Three-Function Framework" originates. This framework is the suggestion that government activity should be separated into three functions or "branches," macroeconomic stabilization, income redistribution

and resource allocation. The stabilization branch is to assure the achievement of high employment and price stability, the distribution branch is to achieve an equitable distribution of income, and the allocation branch is to see that resources are used efficiently.

This conceptual division of the responsibilities of government allows us to narrow the scope of inquiry into tax assignment, by indicating which of the three functions are most appropriately assigned to various levels of government. The remainder of this section focuses on the implications of the three-branch framework for the assignment of revenue sources among levels of government, especially the assignment between the central government and second-tier governments.

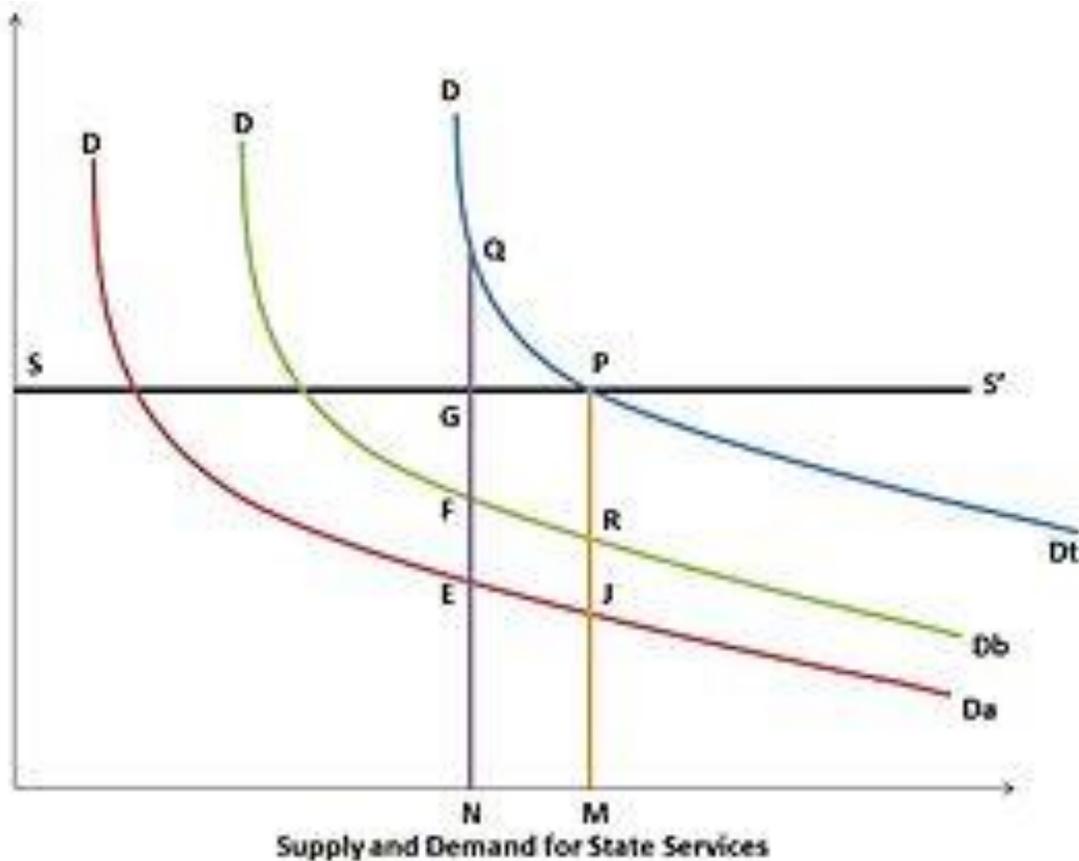
In his paper, "A Multiple Theory of Budget Determination," published in 1957, Musgrave introduced the economic concept of merit good (and later, de-merit good). The concept has been extensively discussed elsewhere and been quite controversial in economic theory.

### Principles of taxation

Most governments collect funds from various sources to provide public services or to finance transfer payments. Taxation is the most common source of revenue in mixed economies.

Under the benefit theory, tax levels are automatically determined, because taxpayers pay proportionately for the government benefits they receive. In other words, the individuals who benefit the most from public services pay the most taxes. In analyzing the benefit approach, two models have been discussed: the Lindahl model and the Bowen model.

### Lindahl's model

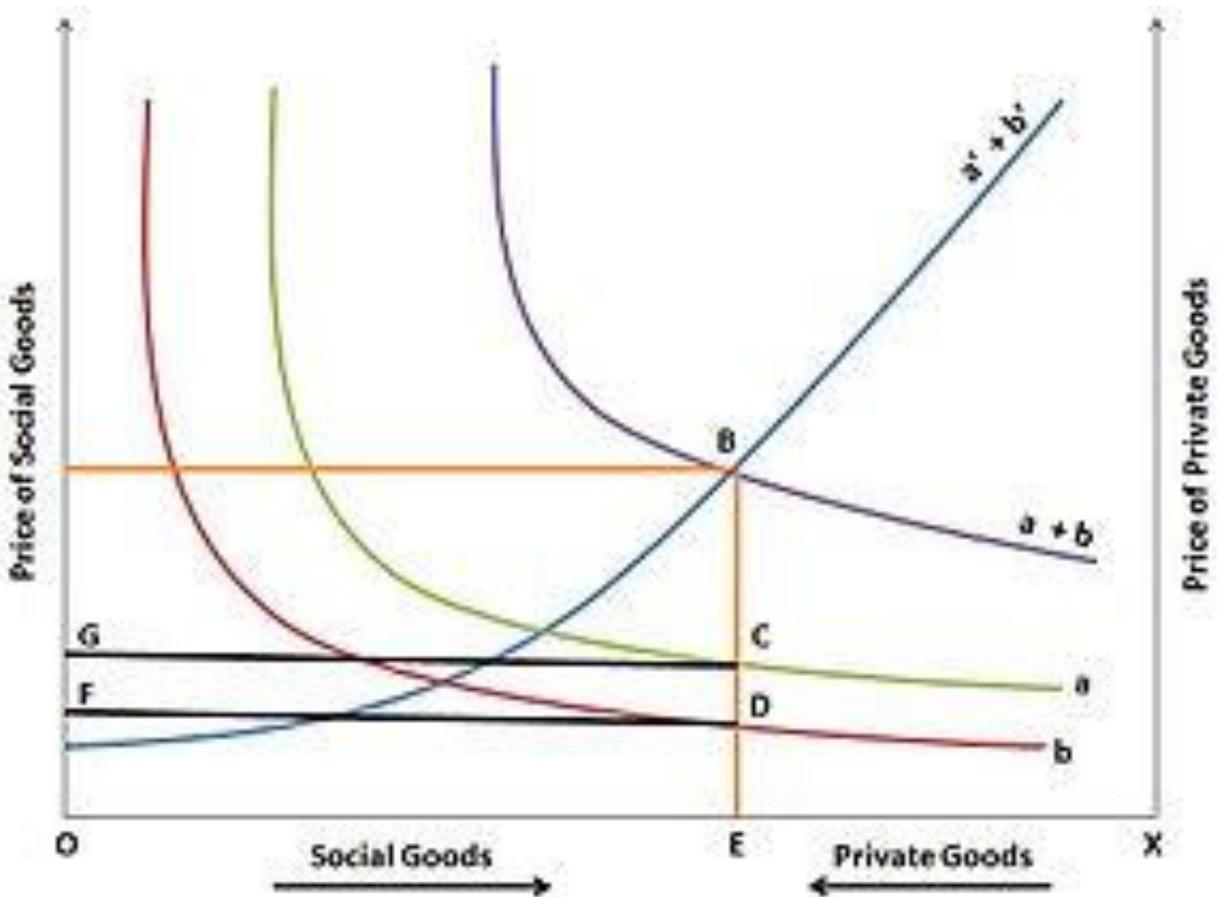


Lindahl tries to solve three problems:

- Extent of state activity
- Allocation of the total expenditure among various goods and services
- Allocation of tax burden

In the Lindahl model, if  $SS$  is the supply curve of state services it is assumed that production of social goods is linear and homogenous.  $DD_a$  is the demand curve of taxpayer A, and  $DD_b$  is the demand curve of taxpayer B. The vertical summation of the two demand curves results in the community's total demand schedule for state services. A and B pay different proportions of the cost of the services. When  $ON$  is the amount of state services produced, A contributes  $NE$  and B contributes  $NF$ ; the cost of supply is  $NG$ . Since the state is non-profit, it increases its supply to  $OM$ . At this level, A contributes  $MJ$  and B contributes  $MR$  (the total cost of supply). Equilibrium is reached at point  $P$  on a voluntary-exchange basis.

## Bowen's model



Bowen's model has more operational significance, since it demonstrates that when social goods are produced under conditions of increasing costs, the opportunity cost of private goods is foregone. For example, if there is one social good and two taxpayers (A and B), their demand for social goods is represented by  $a$  and  $b$ ; therefore,  $a+b$  is the total demand for social goods. The supply curve is shown by  $a'+b'$ , indicating that goods are produced under conditions of increasing cost. The production cost of social goods is the value of foregone private goods; this means that  $a'+b'$  is also the demand curve of private goods. The intersection of the cost and demand curves at  $B$  determines how a given national income should (according to taxpayers' desires) be divided between social and private goods; hence, there should be  $OE$  social goods and  $EX$  private goods.

Simultaneously, the tax shares of A and B are determined by their individual demand schedules. The total tax requirement is the area (ABEO) out of which A is willing to pay GCEO and B is willing to pay FDEO.

### *Advantages and limitations*

The advantage of the benefit theory is the direct correlation between revenue and expenditure in a budget. It approximates market behaviour in the allocation procedures of the public sector. Although simple in its application, the benefit theory has difficulties:

- It limits the scope of government activities
- Government can neither support the poor nor take steps to stabilize the economy
- Applicable only when beneficiaries can be observed directly (impossible for most public services)
- Taxation in accord with the benefit principle would leave distribution of real incomes unchanged

### Ability-to-pay approach

The ability-to-pay approach treats government revenue and expenditures separately. Taxes are based on taxpayers' ability to pay; there is no *quid pro quo*. Taxes paid are seen as a sacrifice by taxpayers, which raises the issues of what the sacrifice of each taxpayer should be and how it should be measured:

- *Equal sacrifice*: The total loss of utility as a result of taxation should be equal for all taxpayers (the rich will be taxed more heavily than the poor)
- *Equal proportional sacrifice*: The proportional loss of utility as a result of taxation should be equal for all taxpayers
- *Equal marginal sacrifice*: The instantaneous loss of utility (as measured by the derivative of the utility function) as a result of taxation should be equal for all taxpayers. This will entail the least aggregate sacrifice (the total sacrifice will be the least)

The three types of sacrifices have been demonstrated by Richard Musgrave. In the ability-to-pay model illustrated, total utility is C and marginal utility is O. CE is total utility, and CF is the marginal utility of income. When an income-yielding tax (MG) is levied, under equal absolute sacrifice, A will pay NG and B will pay TH ( $TH+NG=MG$ ). Under equal proportional sacrifice, A pays RG and B pays SH ( $SH+RG=MG$ ). The shares are arranged so  $EW \div EI = KU \div KJ$ . Under equal marginal sacrifice, A pays VG and B pays VH ( $VG+VH=MG$ ). The aggregate sacrifice ( $EX+KY$ ) is at minimum.

Mathematically, the conditions are as follows:

- Equal absolute sacrifice= $U(Y)-U(Y-T)$ , where  $y$ =income and  $t$ =tax amount
- Equal proportional sacrifice= $(U(Y)-U(Y-T))/U(Y)$ , where  $U(Y)$ =total utility from  $y$
- Equal marginal sacrifice= $(dU(Y-T))/(d(Y-T))$

## **UNIT-3**

# **FISCAL FEDERALISM**

## **Lesson—1**

### **Fiscal Federalism in India**

The history of the development of fiscal federalism in India dates back to 1871, when the Provinces got for the first time 13 heads of revenue. Prior to 1871 they were getting only fixed grants from the centre for meeting their expenditure. The heads of revenue given to the Provinces were registration, police, jails, medicine, education, roads and civil works. Since these sources were not adequate, the Provincial Governments continued to get fixed grants as well from the central government.

The second stage in the process of devolution of financial powers began in 1904 when a system of divided heads of revenue was evolved and was adopted on a permanent basis in 1912. Under this system the centre retained for itself income from railways, post and telegraphs, mint, salt and opium and the income from land revenue, irrigation, excise duties and stamp duties were to be shared between the two. However, the system of lump sum grants from the centre to the Provinces was also continued.

The process of devolution of financial powers from the centre to the provinces was further strengthened under the Government of India Act, 1919 which was the first step towards providing autonomy to the provinces in administering matters of local and regional importance. Accordingly, the matters of regional and local importance like education, public health, local self-government, were allotted to the provincial governments and matters of national importance like defence, currency and mint and foreign affairs were given to the central government. It was, however, felt that owing to the allocation of head of land revenue (which was the major source was and which accounted for about 17 percent of the total revenue), the provinces were financially better placed than the centre and therefore they should contribute to the central government to enable it to meet the budget deficits. And so, the financial relations committee was constituted under Lord Meston to suggest a scheme of provincial contribution to the centre. The scheme suggested by the committee is known as Meston Award. The scheme was opposed very strongly by the provinces and hence the Joint Select Committee of the British Parliament on

Draft Rules recommended for its gradual abolition. Subsequent developments also proved that the revenue position of the centre did improve in comparison to the provinces. The position of the provinces was further weakened by the Depression of the Thirties and by 1936-37 all the provinces started getting grants from the centre for one purpose or the other.

The government of India Act, 1935 gave further autonomy to the provinces in matter of governance and revenue resources. The functions and revenue resources of the two governments were clearly divided. Accordingly three lists were given. The federal legislative List contained 59 entries, Provincial Legislative list contained 94 entries and a third list contained 36 entries on which legislated powers would be exercised concurrently by both levels of governments. Similarly the revenue resources were divided into: (i) Federal, (ii) Provincial (iii) Federal and Provincial.

Thus the government of India Act, 1935 laid a firm foundation for fiscal federalism. It provided for sharing of taxes on income other than agricultural income under section 138(1). According to the Act the taxes on income other than agricultural income were to be imposed and collected by the central government and a fixed percentage of the net proceeds, after deducting the cost of collection and amounts attributed to the chief Commissioners' provinces, was to be allocated to the provinces. The exact percentage was to be determined later. The federal government was empowered to levy a surcharge only for its own purposes.

The demand of the jute growing provinces for sharing the export duty on jute and its products was accepted under section 140(2) of the Act, which provided that 50 percent or more of the net proceeds of the export duty on jute produce be assigned to them. The Act also provided for certain taxes to be levied and collected by the central government but their entire net proceeds were to be distributed among the provinces. These taxes included on goods and passengers carried by railways and air, taxes on railway freights and fares, duties on succession of properties other than agricultural land and stamp duties. The Act also provided for grants-in-aid from the central government to the provinces under section 142. The central government was empowered to give conditional and discretionary grants of different amount of different provinces according to their requirement. Section 150(2) of the Act empowered both the central and provincial governments to give grants for any purpose.

Bases for sharing to various taxes and for determining grants-in-aid in accordance with the provisions for the act was recommended by Sir Otto Niemeyer who was asked to make a report on the various provisions for the Act and are known as Otto Niemeyer Award. Sir Niemeyer recommended that 50 percent of the proceeds of income tax should be distributed among the provinces. He also recommended that the percentage share in the divisible pool be as under.

Madras-15; Bombay-20; Bengal-20; united Provinces-15; Punjab-8; Bihar-10; Central Provinces-5; Assam-2; North West Frontier Province-1; Orissa-2; and Sind-2.

### **Federal Financial Structure after Independence.**

India achieved independence on August 15, 1947, but adopted the new Constitution on January 26, 1950. The constitution provided for a finance commission for recommending the principles on which the divisible taxes would be shared and the grants-in-aid would be given. In the meantime transitory provision had to be made. Dr. C.D. Deshmukh was appointed to look into the question and make recommendations. He followed the basic principles as contained in the Niemeyer Award. Owing to the partition of the country, the share going to Sind, North West Frontier Province and parts of Punjab and Bengal was now available for resharing by other states. Deshmukh Award made only some marginal changes but are shared with the states either on a mandatory or permissible basis like income tax and union excise duties. A surcharge on these taxes is not shareable with the states. Fourthly, there are taxes which are levied by the central government but collected and retained by the states as provided under Article 268 of the constitution, like stamp duties and excise duties on medicinal and toilet preparations.

Lastly, there are taxes which are levied, collected and retained by the states.

- (i) The constitution has also to impose certain restrictions on the taxing powers of both levels of governments for the maintenance of health centre-state financial relations and also inter-state financial relations. For example, the centre cannot tax income property of a state but can its trade or other business activities. A state cannot tax the property of a state but can tax its trade or other business activities. A state cannot tax

the property of the central government. A state can tax the sale, distribution and consumption of electricity, but not when it is consumed by the centre or the railways. In certain cases a state cannot impose tax in respect of the consumption of water and electricity. A state can levy taxes only within its own territorial jurisdiction.

### **Principles of Federal Finance**

Professor B.B. Adarkar has enunciated three principles which should govern the working of the federal financial system. There are explained as follows:

**(1) Principle of independence and responsibility:** The first principal for the efficient and smooth functioning of the federal financial system is that each government should have independent financial resources and should be responsible for raising resources for meeting its obligations. Financial independence and financial responsibility are the two fundamental requisites for the success of fiscal federalism. To quote professor Adarkar, “full freedom of financial operations must be extended to both federal as well as state governments in order that they may not suffer from a feeling of cramp in the discharge of their normal activities and in the achievement of their legitimate aspirations for the promotion of social and economic advancement”. In other words, each government should be autonomous both in respect of taxing and spending within its own sphere. There is certain writer hold that such autonomy may aggravate inter-state disparities particularly in underdeveloped countries like India. Rich and better states will be able to fulfill their obligations in a better way than relatively poor states. Hence, the extent of taxing autonomy should be determined objectively by taking into account factors like uniformity in tax rates all over the country, promotion of economic growth of the entire country, balanced economic and social development of all regions, and economic stability of the whole country and so on. These writers, therefore, hold that in matters of taxation the federal government should only be autonomous and in the field of spending each state should be autonomous.

The view that the federal government should enjoy taxing autonomy while the state governments should have spending autonomy appears to be very sound in theory.

But, in practice, it would mean dependency of the state government on the federal government or transforming the states governments in to the spending departments of the federal governments. In such a situation the federal government will also laid down norms and rules of expenditure and state government will be accountable to the federal government. Where will then be the spending autonomy of the states? Hence, this view appears to be not only impracticable but dangerous too for national development. In fact, both the government should enjoy autonomy in both areas with scope for adjustments whenever needed in national interests.

**(2) Principle of adequacy and elasticity.** Each layer of government should have adequate and elastic source of revenue under its control if it has to fulfill its obligations according to the needs and aspirations of its subjects. Adequacy mean sufficiency i.e., the resources should be sufficient to enable to government to perform the functions assigned to it. It is very essential for the independence of each government. According to Seligman, “The three principles that should guide in the allocation of revenue as among various tax jurisdictions are: the extent of the base of the system, the efficiency of the administration and the adequacy of the revenue”. In addition, the resources should be elastic i.e., capable of expansion. It means that in times of need more revenue due to increase of the services or projects, due to inflation or for whatever reasons or to meet the increased expenditure owing to the increase in responsibilities and obligations or in times of crises, the government should have the scope for expanding its revenue with ease and smoothness. Each level of government should be free to develop new sources of revenue with its jurisdictions.

**(3) Principle of administrative economy and efficiency.** We have already discussed before the importance of economy and efficiency as the bases for allocation of functions between a federal government and the state governments as and as a jurisdiction for the existence of a federation. It depends upon the nature of the sources of revenue whether they should be handled by the federal government or by the regional government. Some sources are of such nature that they can be handled either alone by the federal government or alone by the regional governments. Take for example the income tax. If it is left to the regional government then it would create lot of problems and complications because: (i) each state would like to have its own rates and exemptions which is not possible and (ii) it is difficult to clearly lay down the jurisdiction of various states. For example, custom duties can be collected only when they leave

the country but the goods may be originate in different states. Similarly in the present circumstances of the world as a whole, regular and protect financial powers can be handled efficiently only at the level of federal government. Such financial powers relates to the issue of the currency and coinage, foreign aid etc. On the other hand, certain financial sources like Land, revenue, small scale and cottage industries, road transport etc. are such which can be better handled at the level of the state governments. So these should be left to the state governments. Further, some sources of revenues are such that they can be dealt with more efficiently at the local level, for example wage rates, house taxes etc.

So, these may be allocated to the local government. Similarly, the consideration of economy in the case of collection should also be given due importance while allocating financial power and resources to different governments because lack of economy in the collection of revenue would amount to waste of resources and no economy can afford to bear this sort of waste.

We can simply, therefore, add fiscal efficiency depends upon the way financial powers are divided between different governments.

### **Other Principles.**

In addition to the above principles or canons of federal finance, the following principles have been added by other writers:

**(1) Principle of integration and co-ordination:** The sources of fiscal federalism depend upon the integration and co-ordination between the financial activities and programmes of the different layers of government. It implies that none of the federal, state or local governments should act in an isolated manner. Financial autonomy does not mean that each state government should act haphazardly. In other words the financial policies and actions of all the governments- taxation, borrowing, capital outlay programmes, budgets formation etc. should move in a co-ordinated manner to ensure a uniform growth of the economy. It also means co-ordination between administrative programmes of different layers of governments as well.

**(2) Principle of Equity:** According to this principle, the burden of taxation should be equally distributed among all the taxpaying citizens of the country. It means that the federal and

the state taxation measures should be adjusted in such a way that burden of all taxes taken together, is as nearly uniform as possible on every person regardless of the fact in which state he or she is residing. Since all the regions of the country are not equally endowed with natural resources and are not equally developed economically and socially are marginal utility of money to the tax payer differs from state to state, such an adjustment of resources becomes necessary.

**(3) Principle of Accountability:** The government at each layer of a federation should be accountable to the people. This implies transparency in all financial and administrative matters. The annual budget of each government should be an open book. It should contain a detailed project-wise description of receipts and expenditure, both on capital and revenue account. The people's representative in the Parliament and State Legislature and the general public should know the cost involved in each project and the benefit flowing from it to the whole community as also the damage if any caused to the other States or the Centre. They would be able to decide about the continuance or otherwise of a project. Each project/ programme should be subject to a detailed audit by an independent authority.

**(4) Principle of Uniformity:** This principle implies that as far as possible rates of taxation and volume of the expenditure for each public service common to all the federating units should be uniform in all units. Lack of uniformity in the levels of taxation and expenditure may further aggravate regional disparities already existing in a big developing country like India. In this connection it may be noted that the at least two objectives: (a) the tax coverage and tax schedules should not discriminate between citizens of the same country residing in different states, unless the overall national policy on welfare grounds requires that; and (b) the tax structure should be as uniform as possible in all the parts of the country. There should neither be competition nor conflict between the different federating units on this point.

**(5) Principle of Location Neutrality:** Locational neutrality means that the tax measure should be neutral in their effects on the neighboring regions. In other words there should not be any tax competition between different regions. A backward or poor region may find it useful for its development to lower the tax rate or abolish the tax to attract capital, trade and industries from other regions. This sort of competition is harmful and undesirable or not will depend upon the merits of each case. Those who stand for locational neutrality, however, ignore the problem of

regional disparities. But a pragmatic approach demands that backward regions should be allowed some degree of tax competitiveness, while the richer regions should not be permitted to do so.

**(6) Principle of Economic Stability.** We have already stated that functions related to economic stability of the country should be reserved for the central government like, regulation of the economy to neutralize the effects of fluctuations in income, employment and output. Maintenance of balance of trade equilibrium and regulation of international capital movements etc. or the functions which cover than one region should be with the central government. Similarly, those of the financial resources which cover the entire economy like the issue of currency, custom duties, income tax etc. should be with the federal government.

**(7) Principle of Fiscal Equalization.** This is principle demands that there should be fiscal equality between the federal government and regional government on the one hand between different regional governments on the other. But, it is not always possible to divide the financial resources in such a way as to maintain balance in the functions and resources allocated to the federal governments and different regional governments. The problem of financial imbalance between the federal and regional governments on the one hand and between regional governments on the other is likely to arise for solving this problem. The federal government should always strive to transfer resources from time to time not on a uniform basis to all regions but as and when financial help is required by any region. A system of resource transfer will certainly help fiscal equalization.

**(8) Principle of Financial Discipline.** According to this principle each government unit will have to work under some financial discipline. Financial discipline means self-imposed financial control. Lack of financial discipline will lead to superfluous expenditure or infructuous expenditure, which is not desirable, since it amount to waste of financial resources. Hence, each government should spend its revenue for the purposes for which it has been raised and should aim at obtaining maximum output from minimum inputs. Such financial discipline will help the maintenance of sound federal financial relations.

## **Lesson- 2**

## **PROBLEM OF FINANCIAL IMBALANCE**

The problem of financial imbalance is central to a federal set-up. Financial imbalance means lack of harmony between functions and financial resources. This imbalance may appear at the level of the national economy as a whole, between the federal government and the state governments and between the states themselves. But this problem is not peculiar to a federation only. We find that the problem of mismatch between the needs and means is basic to human life. It also exists at the global level. Even for the economy as a whole this problem of imbalance can exist firstly, because of an increase in public expenditure which has been showing an upward trend as held by Wiseman-Peacock and secondly because of economic, social and other natural disturbances like wars, floods, and famines etc. in such situations the balance between the financial resources and needs stands disclosed. But in the case of a federation the problem is peculiar in the sense that it is either self-created or caused by factors beyond the control of any level of government.

If we look at the position of federal and state governments separately, we find that despite best efforts and intentions, matching of the financial resources with the needs may be difficult. Firstly, the functions are divided on the basis of efficiency in performance and financial powers are divided according to economic allegiance criteria etc. and therefore the question of a satisfactory balance between the two does not arise. Secondly, the nature of resources suiting one type of government may not match its requirements. Thirdly, the financial powers given to the units may not be adequate to each every unit. For example, in India the functions and the financial powers have been divided between the centre and the states in the Indian constitution itself. But it has been found that the revenue resources given to the centre are elastic in nature, while those given to the states are inelastic. Income and corporation taxes, custom duties and excise duties are with the centre. Their yield increases with an increase in the national income, trade and national production respectively. Few of the taxes allocated to the states are elastic. The yield from these sources varies from state to state depending upon whether it is industrially developed or agriculturally dominated, whether it is a centre of trade or commerce or not etc. Richer states have more revenue resources and less needs for social services whereas poor states have more needs for social services and less resources. Consequently the revenue of the central

government grow more than proportionate to its expenditure and the expenditure of the states government s increases more than proportionate to their revenues. So, there is financial imbalance between the centre and the states which leads to general strain.

Between the states themselves there is lot of financial imbalance. Firstly, there are income disparities due to differences in the stage and rate economic development. Secondly, over the years, to meet the increase in expenditure owing to increase in functions and responsibilities the central governments has usurped some of the tax resources of the state government.

### **Solving the problem of financial imbalances**

From the above, it is amply clear that the problem of financial inadequacy is not a one time problem .it may appear again and again in the sphere of fiscal resources between the federalism. This problem can be solved by periodical adjustment of functions and resources between the federal and state governments i.e., sometime withdrawing or transferring some functions between the two levels of government is generally provided in the constitution, it may neither be easy nor practical to disturb that arrangement for several administrative, social and political reasons. Although such an adjustment is permitted in Switzerland, it is not possible to exercise it in countries like India. However, the practice of transferring resources from the federal to state governments is very common. Transferring of funds from the federal to state governments is both easy and practical because it is easier for the federal government to raise money. Transfer of resources may also take place from richer states to poor states. Such an adjustment meets the ends of distributive justice. Rich states or advanced states can easily afford to transfer their surplus funds to the needy states and help their economic development. These states are in position to collect larger tax revenue and spend less on social services and other utilities. Theoretically, in advanced and more developed states both the marginal disutility of taxation and marginal social utility of government expenditure are low in comparison to backward states whose tax collecting ability is low and the need for social series is very high. Distributive justice demand that all states in a country should be at par in respect of marginal disutility of taxation and marginal social utility of governmental services. For inter-regional parity it is essential that rich states should raise more revenue from taxes and transfer it to poor states. In practice,

however, the measurement of social utility of government expenditure or disutility of taxation is not possible. Nevertheless it will certainly help in reducing regional disparities.

Notwithstanding the beneficial effect of inter-state transfer of resources on the overall economic development of the country, no state will voluntarily transfer its surplus funds to or raise more revenue from taxation and help the needy states. Such a transfer of resources can take place only through the medium of central government, provided it is strong enough to collect more resources from richer regions and distribute them among the backward regions

### **HorizontalAnd Vertical Imbalances**

Horizontal equity refers to equal treatment of equals and vertical equity means unequal treatment of unequals. The citizens of different states in federation may be subjected to horizontal as well as vertical inequality in the sense that people of equal economic position are not treated equally and the people of unequal economic position are not treated unequally in the sphere of tax payment and public expenditure. Therefore, one payment and public expenditure. Therefore, one of the important purpose of tax sharing and federal transfer of resources is to remove such state horizontal and vertical imbalance.

### **Horizontal Fiscal Imbalance and Remedy:**

Horizontal fiscal equity in a federation seeks to achieve inter-personal equality in tax payment among the different states. If two persons in two states have equal income position, the tax liability of each on account of both federal and state tax should be equal. This reality can be realized through equalization what is called fiscal residue. J.M Buchanam refers fiscal residue as net benefits from tax-expenditure programme i.e. benefits from expenditure minus disutility from tax payment.

The gap in the fiscal residue can be removed and horizontal fiscal balance is achieved only through inter-state transfer of resources i.e the federal arrangement of resources ie the federal arrangement of resource transfer from richer states to poorer states. Such fiscal transfer

were equalize the per capita income in different states. Thus, only under such situation, either equal amount of per capita tax or per capita public expenditure can bring about inter personal fiscal equity.

### **Vertical fiscal imbalance and remedy:**

There is continuous increase in the expenditure programmes of the state and local govt. due to increasing compulsion of welfare works. Their expenditure on activities like education, public health, social welfare, urban transport, agriculture and other type of income upliftment scheme etc are on the increase. On the contrary most of the revenue sources under the control of state and local government are of inelastic nature so that the growing expenditure cannot be met from poor resources. Such resource gaps between the centre and the state are referred to as vertical fiscal imbalance.

Fiscal federation tries to achieve a balance through what is called vertical co-ordination between the centre and the states so that a correspondence is achieved between the central and state and local level public expenditures and resources for financing them. The different methods of achieving vertical fiscal equity as between the centre and regions in a federation are:

(a) tax sharing (b) tax credit (c) tax deductibility (d) tax denial (e) general grant-in-aid (f) Selective grant-in-aid.

### **Lesson-3**

#### **FINANCE COMMISSION**

The Finance Commission of India came into existence in 1951. Article 280 of the constitution of India provides for a Finance Commission as a quasi judicial body. It is a main departure in the financial provision of the Constitution from the scheme of the Government of India Act, 1935 consists in the institution of a Finance Commission under Article 280.

**Constitution of Finance Commission-** It is with respects to the obligatory sharing of income tax, the optional or voluntary sharing of respect Excise Duties and for making provision of grants-in-aid that the provision for the constitution of a Finance Commission has been made in Article 280 of the constitution. The Article says, the President shall, within two years, from the commencement of the Constitution and thereafter at the expiration of every fifth year or at such earlier times as the President considers necessary, by order can constitute a Finance Commission which consists of a Chairman and four other members to be appointed by the President.

Parliament may by law determine the qualification necessary for appointment of the members of Commission and lay down the manner in which they shall be selected.

**Functions of the Finance Commission:**

It shall be the duty of the commission to make the recommendation to the President as to:

- (a) the distribution between the Union and the States of the net proceeds of taxes which are to be or may be, divided between them and the allocation between the 'States of respective shares of such proceeds;
- (b) the principle which should govern the grants-in-aid of the revenues of the States out of the Consolidated Fund of India;
- (c) the continuance or modification of the term of any agreement entered into by the Government of India with the Government of any State Specified in part b of the First Schedule under clause (1) of Article 278 or under Article 206; and
- (d) Any other matter referred to the Commission by the President in the interest of sound finance.

The Finance Commission shall, thus, recommend to the President.

- (ii) The percentage of the net proceeds of the taxes which may be divided between the Union and the States.
- (iii) The allocation of the share of the proceeds of such taxes in percentages between the States *inter-se*.

- (iv) The principles which shall govern the distribution of grants-in-aid of the revenues out of the Consolidated Fund of the Government of India between the States.
- (v) The continuance or modification of term of agreement with part B States regarding the levy of internal customs and duties. This had become necessary as a result of the integration of the former Indian States with the Union.
- (vi) Grants-in-aid for the tribal areas, and
- (vii) Special grants for any particular State.

The commission shall determine its procedure and shall have such powers in the performance of its functions as Parliament may by law confers on it.

The President shall place every recommendation made by the Commission together with an explanatory memorandum as to the action on them before each house of Parliament.

**Obligatory Function-** However, the Finance Commission's obligatory duties have been declared to be two:

(1) The distribution between the Union and the States of the net proceeds of taxes which are to be or may be shared,

(2) The principles which governs the grants-in-aid of the revenues of the States from the Consolidated Fund of India. *The Income-tax is only tax to be compulsorily shared while the sharing of excise duties may be said to be voluntary or optional (the distinction between parts A and B States has been abolished)*

### **Implementation of the Recommendations:**

The sharing of income tax is to be by the order of the President after considering the recommendations of Finance Commission, a convention has been established that the government of India will accept the recommendations both as regards the percentage share of each state to be assigned to the States and the manner in which this percentage is to be determined and distributed among the States. The share of the States does not form part of the Consolidated Fund of the Union and goes straight to the Consolidated Funds of the States.

According to the Article 272 of the Constitution, the recommendations for the Finance Commission are only recommendatory, it is open to the Union Government to ignore the recommendation of the Finance Commission in respect of the excise duties and if it wants to assign any part of the excise duties, it may propose such law as it pleases. But, in practice, the recommendations of the Finance Commission at the basis of the law to be placed before the Parliament for the sharing of excise duties.

**Constitutional Position-**The constitutional position, therefore, is:

1. Finance Commission is to make recommendation only of the principles, which should govern the grant-in-aid;
2. The parliament may by law, prescribe specific grants for the states in need of assistance; and
3. Till Parliament makes such law the President may by order make grants of specific sum after considering the recommendation of the commission.

Actually, all this confusion has been resolved by the Finance Commission, after making some attempts to formulize principles, recommending specific sums and the President making by order grants these sums. The Union Government has not so far thought it fit to ask Parliament to make any law under Article 275(1) nor has any attempts been made by any section of Parliament to induce it to exercise this power.

## **FINANCIAL ADJUSTMENT.**

Whatever the origin and position of resources, it is finally the federal government from which resources can be transferred to the states. In other words, in a federal set-up financial adjustments are possible only between the federal government and the state governments. Any exercise towards such financial adjustment would require looking into firstly, the relative needs for resources of the states and the federal government, and secondly the modes of transfer of resources from the federal government to state government. So far as the first is concerned the determination of the respective needs of each state government and the federal government in

quantitative terms is not possible. Governmental activities and hence the public expenditure cannot be divided into water tight compartments. Expenditure under the same head may increase or decrease or may become superfluous according to the situation as it develops. Certain expenditures are unavoidable like payment of interest on loans, salaries and wages, expenditure on social services, expenditure on administration, maintenance of defense and police forces etc. certain states may be committed to meet expenditure on certain social overheads like education, health and various civic amenities. The expenditure on such services is fixed and for a variety of reasons cannot be reduced by lowering the level of diluting the quality or standard of such services. Again, the apportioning of total government resources between the various governmental activities is just a matter of judgment and a rule of thumb cannot be applied. Further, it is not possible to lay down objective criteria and determine relative weightage, acceptable to all, for deciding about the distribution of resources between the states. Finally, the allocation of resources according to the respective needs of the states vis-à-vis their current resources may make certain states lethargic and inefficient. They may not make efforts to increase their own resources. Hence, it is clear that it is neither practical nor easy to work out a permanent plan or prepare a set of criteria for financial adjustment between the federation and its units in a federal setup. The entire system of federal finance has to be flexible so that necessary adjustments are made whenever required or considered necessary.

### **Modes Of Resource Transfer**

Regarding the modes and techniques of transfer of resources the following are to be adopted: (i) Sharing of tax proceeds; (ii) Supplementary levies; (iii) grants-in-aid, and (iv) loans. We now discuss these in the following paragraph.

**(1) Sharing of Tax Proceeds.** Under this mode taxes are collected by one government and their proceeds are shared by different governments. Generally, the central government levies two or more taxes between different layers of government could be mentioned in the constitution of the federation. The basis for sharing the taxes could also be provided by constitution itself, but it would make the system rigid, because it is generally easy to amend the

constitution. However, tax sharing has to be done on logical basis. The imposition and collection of taxes by one authority brings about efficiency in tax administration, tax rate uniformity throughout the economy and the cost of tax collection is also low. Whenever a tax covers an economic activity which spreads over more than one state or region, it is always advantageous that the tax is collected by the federal government. Such a system also allows the collection and sharing of proceeds of taxes which are elastic so that the states or regions cannot object that they have been allocated inelastic taxes. For example in India the government of India levies and collects income tax and union excise duties and shares the proceeds with the states. There is another method of sharing too. The central government may collect the tax and distribute the entire proceeds among the federating units after meeting, of course, the cost of collection. In this connection, one thing to be noted is that the combined share of all the states depends upon the proceeds of the taxes and the share of individual states is determined by the percentage share allotted to it. The states, therefore, also share the benefits or losses resulting from the changes in the tax collections.

The share of individual states or regions in the total divisible pool can be determined in two ways: (i) on the basis of tax collection made in each state; and (ii) according to the size of the population but the results of the two can be quite different. Moreover, it is not necessary that the criterion of tax-sharing which is correct in the present circumstances may also be correct under all circumstances. So, the system should be flexible so that it would be changes according to conditions. This also demands that for sustaining the interest of the government collecting the taxes, a part of the tax proceed is also allotted to it. It is also necessary that the tax-sharing scheme is not made unwieldy by having too many taxes.

While the tax-sharing system is advantageous in a number of ways, it is not free from defects. Its benefits are that it is simple and pragmatic; it maintains the superiority of the federal government while retaining autonomy of the federating units; it helps in the fair distribution of tax proceeds; it is mutually beneficial etc. but, it is defective because it relegates the federating units to the second position and makes them dependent on the federal government.

**(2). Supplementary Levies.** Supplementary levies are imposed by the governments of the federating units in addition to the principle tax, imposed by the federal government. These

levies are also assessed and collected by the federal government and their proceeds are distributed to the states. In this way it is an integrated tax and is also administratively efficient. However, care has to be taken to ensure that the supplementary levy may not be excessive to make the tax burden heavy or may not be more than the principle tax.

**(3). Grants-in-Aid.** Generally grants-in-aid are provided by the federal government to the state governments for meeting additional needs for fund for the services they have to provide, but for which they are not authorized to generate resources. Sometimes grant-in-aid are given to state governments for providing certain services for which they do not impose any burden on the people of the state by imposing additional taxes or loans, particularly during famines, floods, drought and the like natural calamities. Grants-in-aid are also provided for reducing imbalances. These are specific purpose grants and it is the endeavor of the federal government to ensure that such grants are used only for the purpose for which these are given. Development of backward regions of the country does not benefit only the region concerned but also indirectly helps developed regions. Special grants are provided to the weaker states so that they may attain minimum standard in conformity with the standards prevailing in the federation as a whole. Special grants, therefore, are given particularly for removing inequalities of financial resources between different units of a federation. Those grants are also given for the removal of inequalities in the per capita expenditure on items of expenditure like education, public health etc. These are discretionary grants. Specific purpose grants are granted on the principle that though the activities concerned can be best administered at the state level, the federal government should promote their expansion and improvement in the quality of service by participating financially in these projects.

Grants-in-aid can be an outright grant as well as on a sharing bases. Outright grant is given for bridging the gap between the current revenues and expenditure of the regional governments. In other words, these grants are meant for meeting budgetary deficits. These are not conditional or specific purpose grants. Specific purpose grants are given either on a matching bases (as in the USA and India) or on cost sharing bases (as in Canada). Outright grants are also known as general grants or fiscal need grants. In this connection it is argues that he system of outright grants is better, since it allows the state governments freedom to utilize their total resources, including grants, in the best interest of the people of the state. But such grants may

also be used by the states for low priority programs. From this point of view, conditional and matching grants may be a better proposition because it is only then that the grant will be utilized for the purpose for which it is given. But conditional and matching grants cannot be justified in every case. There is a danger of their being utilized sub-optimally. It may also lead to inefficiency and wastage. The possibility of a state government overestimating the cost of a particular project and claiming more grants by way of central share cannot be ruled out. So, the central government will need to exercise extreme caution and vigilance in the case of such grants.

In India grants-in-aid are given to the states under Articles 273, 275, 278, and 282 of the Indian constitution on the recommendations of the finance commissions. These are in addition to the sharing of the tax proceeds. The central government is empowered to give grants under Article 273 to the states to compensate for the loss of revenue on account of any action taken by the central government. In the past, the central government gave grants to the states by way of compensation for the loss of revenue on account of the federalization of export duty on jute and jute projects. Similarly, under Article 278 the central government provided grants to the erstwhile princely states for the loss of revenue on account of their financial integration with the union. Fiscal need grants are given to the states under Article 275 to enable them to overcome the overall inadequacy of revenue in comparison with their expenditure needs. The federal government can also give grants to the states under this article for the development of scheduled tribes and tribal areas. The government of India can also provide discretionary grants to the states under Article 282 of the constitution, in addition to the existing distribution of financial resources. The finance commission is not authorized to deal with these grants. The central government also provides conditional grants to states usually under its discretionary powers specific purposes like flood relief, plan schemes etc.

**(4) Loans.** Loans occupy a special significance in fiscal federalism. The central government provides loans for the implementation of a particular project which is expected to be self-liquidating either partially or fully. In a way, these are investment loans which are expected to be paid back out of the earnings of the project. It is not necessary that the central government may give loans to the states for meeting full cost of the project. The rate of interest may also differ from project to project and from stage to stage. It is generally lower than the rate of

interest on which the central government borrows from the market. In the event of exigencies like natural calamity or to meet a shortfall in the tax receipts, the state governments may also approach the central government for granting loans for tiding over such situation. The state governments may also borrow from the central government, in place normal market borrowings.

From the above it is clear that financial adjustment is not easy and simple. No single adjustment device can suit all the circumstances. And so, the whole approach has to be based on reality of the situation and has to be tackled objectively. In any case it requires a flexible approach.

**Sarkaria Commission:** -It was setup on 9, June 1983 by the central government of India. The Sarkaria commission charter was to examine the relationship and balance of power between states and central government in the country and suggest changes within the framework of constitution of India. The commission was so named as it was headed by Justice Rajinder Singh Sarkaria, a retired judge of Supreme Court of India. The other two members are ShriB.Siaraman and Dr. S.R Sen.

The committee after conducting several studies, eliciting information, holding discussion and after detailed deliberations submitted its report in 1988. The report contains 247 recommendations spreading over the consult state before legislation and concurrent list, river water dispute given by tribunal award should be binding on parties three months after award is given by tribunal, and centre should made deliberate use of Article 258.

It is widely accepted that to whatever extent the commission suggested change the recommendation were not implemented by government.

### **M.M Punchi Report.**

A new commission to redefine centre state ties was chaired by former chief justice of India M.M Punchi which examines what could be the Centre's role, responsibility and

jurisdictions vis-à-vis state during major and prolonged outbreak of communal violence or any other social conflict.

### **Mechanism of Financial Adjustments.**

It is a fact that the constitution itself recognizes the financial inadequacy of the states. That is why it has provided a mechanism of financial adjustment by transfer of resources from the Centre to the states in the form of tax-sharing, grants-in-aid and loans. This scheme of transfer of resources does not however aim at reducing regional disparities.

In the field of tax-sharing, income tax is to be shared between the centre and the states but any cess or surcharge cannot be shared. Corporation tax is also to be retained fully by the centre, when it is a tax on the income of companies. Again, union excise duties are shared with the states but like income tax the actual percentage going to the states is decided by the finance commission. Instances are not wanting when the government of India tried to raise excise revenue which would not be shareable with the states. There is also the case of additional duties of excise in Lieu of sales tax which is not shareable with the states. The net proceeds of these duties are to be assigned fully to the states. In this case also the central government frequently tried to merge additional duties of excise with basic duties but because of the strong opposition from the states it could not.

The constitution has provided a second channel of resources transfer in the form of grants-in-aid under Article 273,275,278 and 282. Articles 273 and 278 have already been out of use. So Articles 275 and 282 are only in use currently. These articles fulfill the need of the states in meeting their normal revenue gaps and for removing inter-state disparities. Under Article 275(1) the central government gives grants-in-aid to the states on the recommendations of the finance commission for meeting their revenue gaps and for the welfare of tribal areas, while grants for various other schemes are given under Article 275. Similarly Article 282 permits both the governments to make discretionary grants for any public purpose they choose. There are 'plan' grants as well as non-plan grants. The former are made on the recommendation of the planning

commission and are known as 'discretionary flows'. The latter are made on the recommendation of the Finance commission and are known as 'statutory flows'.

The loans from the central government to the state government are another instrument of financial adjustment. These loans are provided both for developmental and non-developmental purposes. They are charged to the consolidated fund of India.

It has been observed that over the years the states have leaned very heavily on central loans and have fallen in sort of debt trap. We have already discussed all the issues related to the growing indebtedness of the state governments in an earlier chapter.

With all these grants and loans, there are other transfers as well viz., (i) grants and loans in the ratio of 70:30 for externally aided projects; (ii) non-plan loans comprising mainly of plough back of 80 percent of the net small savings collections by the state; (iii) grants and loans for implementing central plan schemes and centrally sponsored schemes and for meeting the requirements of natural disasters; (iv) ways and means advances; (v) loans to settle overdrafts of the RBI and (vi) special loans for reducing central debts.

### **Gadgil Formula And Pranab Formula.**

Until 1991, the plan assistance was being distributed by the planning commission on the basis of the Gadgil Formula, later modified in 1980 and 1990. In 1991, it was replaced by Pranab Formula, (named after then Deputy Chairman of the Planning Commission, Pranab Mukherji). This has been shown in table given below.

For the three states viz., Chhattisgarh, Uttaranchal and Jharkhand set up November 2000, the planning commission has replaced (iv) as performance certain central initiative and (v) as the discretionary funds quota, retaining the same percentages.

Criteria	Gadgil	First modified	Second	Pranab
Gadgil Formula	modification	Formula		
		(1980)	(1990)	(1991)
<b>Share of special</b>				
<b>category states</b>	30	30	30	30
<b>Non-special category</b>				
<b>States.</b>				
(i) Population	60	60	55	60
(ii) Ongoing major				
Irrigation and power				
Projects.	10	0	0	0
(iv) Per capital Income	10	20	25	25
-----				
(vi) Special Problems	10	10	10	7.5

The report will explore whether there is a need to set a central enforcement agency to take up suo-motto investigation of crimes having inter-state or inter-national ramifications with serious implications or national security.

### **Devolution of Powers**

The role, responsibility of jurisdiction of the centre vis-à-vis states in promoting effective devolution of powers of autonomy to Panchayati Raj institution of local bodies will be looked into by new commission.

The commission will also examine the role of governors, emergency provisions, financial relations, economic and social planning, Panchayati Raj institutions and sharing of resources, including inter-state river water. The state government also borrows from centre to carry out the various developmental and rehabilitational programs. There were no objective criteria decided for the distribution of non-statutory transfer of this introduced an element of arbitrariness in the whole scheme.

### **PLANNING COMMISSION:**

The planning commission was established in March 1950 by an executive resolution of the Govt of India on the recommendation of the Advisory planning Board constituted in 1946 under the chairmanship of KC Neogi. Thus the planning commission is neither a constitutional body nor a statutory body. In other words it is a non constitutional or extra-constitutional body. In India it is the supreme organ of planning of social and economic development:

#### **Function:**

The function of the Planning Commission includes the following.

- 1) To make an assessment of material, capital and human resources of the country and investigate the possibilities of augmenting them.
- 2) To formulate a plan for the most effective and balanced utilisation of the country's resources.
- 3) To determine priorities and to define stages in which the plan should be carried out.

- 4) To indicate the factors that retard economic growth.
- 5) To determine the nature of the machinery required for successful implementation of the plan in each stage.
- 6) To appraise, from time to time the progress achieved in execution of the plan and to recommend necessary adjustments.
- 7) To make appropriate recommendations for facilitating the discharge of its duties or on a matter referred to it for advice by central or state governments.

It should be noted that planning commission is only a staff agency-an advisory body and has no executive responsibility

### **Composition:**

The following points can be noted in context of the composition of the Planning Commission:

- 1) The prime minister of India has been the chairman of the commission. He presides over the meetings of the commission.
- 2) The commission has a deputy chairman. He is the de facto executive head (i.e. full time functional head) of the commission. He is responsible for the (draft) formulation and submission of the draft five-year plan to the central cabinet. He is appointed by the central cabinet for the fixed tenure and enjoys the rank of a cabinet minister. Though he is not the member of cabinet he is invited to attend all its meetings.
- 3) Some central ministers are appointed as a part time member of the commission. In any case the finance minister and planning minister are the ex-officio members of the commission.
- 4) The commission has four to seven full time experience members. They enjoy the rank of a minister of state.
- 5) The commission has a member secretary. He is usually a senior member of IAS.

## **Internal organisation**

The Planning commission has the following three organs.

- 1) **Technical division:** The technical division are the mayor functional unis of planning commission. They are mainly concerned with plan formulation, plan monitoring and plan evaluation. These fall under two categories, that is, general division and subject division.
- 2) **House Keeping Branch:** The planning commission has the following house keeping branch.
  - a) General administration branch
  - b) Gestablishment branch
  - c) Vigilance branch
  - d) Accounts branch
  - e) Personal training branch
- 3) **Programme advisory:** The post of programme advisory were created in the planning commission in 1952 to act as a link between the planning commission and the states of Indian Union in the field of planning.

**Critical Evaluation:** In course of time it has emerged as a powerful and directive authority where as it has emerged as a powerful and directive authority where by its recommendations are considered both by the Union and State the critics have described it as a ‘Super cabinet’, an ‘Economic cabinet’, a ‘Parallel cabinet’, the ‘fifth wheel of the coach’ and so on.

- 1) **Administrative reforms commission (ARC) of India:** It observed that under the constitution, the ministers whether in the centre or the states, are in effect, the ultimate executive authorities. Unfortunately the planning commission has, in some measures, earned the reputation of being a parallel cabinet and sometimes a super cabinet.

- 2) **D R Gadgil:** The former deputy chairman of planning commission also criticised the role of planning commission and concluded that it has failed in its tasks.
- 3) **Ashok Chada:** This eminent administrative analyst said, 'The undefined position of the commission and its wide terms of reference have gradually led to its growth as the economic cabinet not merely for the union put also for the state.'

#### **Lesson- 4**

##### **Centre and State Financial Relations:**

A federal set up creates a multiple polity based on dividends functions and power among central, state and local govt. fiscal federation deals with financial arrangements and their working in a federal polity. It has the advantage of economic integrity which promotes industrial and defence capabilities of a nation. India possesses a federal structure in which a clear distinction is made between the union and the states functions and source of revenues. Our constitution provides residual powers to the center. Article 263 and 293 explain the financial relations between the center and the state governments.

Although, the states have been assigned to certain taxes which are collected and levied by them, they also share in the revenue of certain union taxes and there are certain other taxes which are collected and levied by the center but whole proceeds are transferred to the states.

The constitution provides residuary powers to the center. The Indian constitution makes a clear division of fiscal powers between the center and the states governments.

(A) The list of seventh schedule of Indian constitution enlisted the union taxes which are as follows:

- 1) Taxes on income other than agricultural income.
- 2) Corporation tax

- 3) Custom duties.
- 4) Excise duties except on alcoholic liquors and narcotics not contained in medical and toilet preparation.
- 5) Estates and succession duties other than on agricultural land.
- 6) Taxes on the capital value of the assets except agricultural land of individual and companies.
- 7) Rates of stamp duties on financial documents.
- 8) Taxes other than stamp duties on transactions in stock exchanges and future markets.
- 9) Taxes on sales or purchases of newspapers and an adjustment therein.
- 10) Taxes on railway freight and taxes.
- 11) Taxes on the sales or purchase of the goods in the course of interstate trade.

B) The list (II) of the seventh schedule enlists the taxes which are within the jurisdiction of the states:

- 1) Land revenue.
- 2) Taxes on sales and purchase of goods except newspapers.
- 3) Taxes on agricultural income.
- 4) Taxes on land and buildings.
- 5) Taxes and succession duties on land (agricultural).
- 6) Excise duties on alcoholic liquors and narcotics.
- 7) Taxes on the entry of the goods.
- 8) Taxes on the consumption and sales of electricity.
- 9) Taxes on mineral rights.
- 10) Taxes on vehicles, animals and boats.
- 11) Stamp duties except those on financial documents.
- 12) Taxes on luxuries including entertainment, gambling and betting.
- 13) Tolls. Etc.

C) Apart from taxes levied and collected by the states, the constitution has provided for the revenues for certain taxes on the union list to be allotted partly or wholly to the states. These provisions fall into various categories.

- 1) Duties which levied by the union government but are collected and appropriated by the states. These include stamp duties, excise duties on medical perpetuations containing alcohol or narcotics.
- 2) Taxes which are levied and collected by the union government but the entire proceeds of which are assigned to the states, in proportion determined by the potential. The taxes include
  - a) Estate and succession duties.
  - b) Terminal taxes on goods and passengers.
  - c) Taxes on transaction on stock exchanges and in future markets.
  - d) Taxes on the sales and purchase of the newspapers and advertisements therein.
- 3) Central taxes on income and union excise duties are levied and collected by the union but are shared by it with the states in a prescribed manner.

The consensus of opinion is that a federal system also involves the following essential features.

**Dual Govt.** In a unitary state, there is only one Government namely the national Govt. However, in the federal system there are two layers of govt. the union govt. and the state govt. A component state has no right to secede from the federation. This distinguishes a federation from a confederation.

**Distribution of power:** A federal government and the state.

**Supremacy of the constitution:** A federal state desires the existence from the constitution. Every power (executive, legislative or judicial) whether it belongs to the union or to the state is subordinate to and controlled by the constitution.

**Authority of Courts:** As already noted, the legal supremacy of the constitution is essential to the existence of a federal system. There should be no violation of the provision of the constitution by any tier of govt.

**Doctrine of Harmonious construction:** It means that different entries in different lists are so interpreted that a conflict between them is avoided. It must be accepted that the constitution does not want to create conflict and make any entry migratory.

**Doctrine of pith and substance:** In a federal set up, the central and the state govt should keep themselves within the respective domain assigned to them. The rule of pith and substance means that a law enacted by a legislature which is competent to enact it shall not be invalid merely because it incidentally touches a matter outside the competence of the legislature.

**Rule of Repugnancy:** Repugnancy or inconsistency between two pieces of legislation means that conflicting results are produced when both the laws are applied at the same facts. Repugnancy between two legal provisions can arise in number of ways:

It can arise when one statute says 'do it' and the other statute says 'do not do it'. In such a case there is clear and direct inconsistency between the two acts and the situation is absolutely irreconcilable.

Even if there is no apparent conflict between the two statutes, yet there may be repugnancy because both cover the same field.

When two statutes pertain to the same subject matter, but when parliament intends to make its enactment a complete code and cover the whole field. In such a case the state law whether passed before or after would be overruled on the ground of repugnancy.

### **Economic basis of Decentralisation**

Devolution of funds follows devolution of function. The financing pattern of a govt. can be examined and decided only in the light of functions assigned to it.

Two factors determine the level of expenditure of a govt.

- a) Its functional Jurisdiction

- b) The standard at which its different functions are to be performed.

Functions which involve national interest, economy of scale, lumpy investments and substantial spatial externalities should be left to the national govt. Functions, the benefits of which largely confine to regional jurisdictions and which are subject to heterogeneous preferences should be assigned to the state govt. Sanitation, street lightning, fire safety are services the benefits of which are localised and hence should be assigned to and performed by local govt.

### **Advantage of Decentralised decision making**

Decentralised decision making meets the politics - economics aspirations o the people at the sub national level.

- 1) Allows better matching of public goods supply to local needs, tastes and preference and hence increases social welfare.
- 2) State / local govt are mere responsive and accomtable to people than national govt.
- 3) Mobilisation of resources at the state/ local level reduces dependence and strain on the finance of national govt.

### **Financing pattern:**

- 1) **Taxes-** Tax revenue is generally the main source of financing public expenditure at different levels of govt. In most democratic countries taxation power of central state and local govt are mentioned in the constitution itself. Taxation power of the govt at different levels may be jointly occupied by the federal and provicial govt. Personal income tax, corporation income tax, general sales tax and consumption tax are levied by the federal as well as provincial govt in that country.

**Assignment of Taxes-** It means transfer of taxation power from a higher level to a lower level of govt. Taxation power include the following; the right to levy the tax, collect the tax and appropriate the proceeds from the tax. Thus there are three interpretations of assignment of a tax.

- a) A higher level of govt may levy and collect a tax but handover the entire proceeds to a lower level got. Tax levied by the govt. of India under article 269 of the constitution are a case in point.
- b) The higher level of govt may levy a tax but allow the lower level govt to collect it. Taxes levied by the govt of India under article 268 of the constitution fall under this category.
- c) The higher level of govt may transfer a tax to a lower level govt lock, stock and barrel, a situation which defines assignment of a tax in its strictest sense.

**Transfers:** Transfer are used to correct vertical fiscal imbalances. However, before such transfers are affected it should be ensured that taxes, duties, and levies assigned to the lower level govt are being optimally tapped. Thus tax effort, it not a precondition should at least form part of the formula for transfer.

- A) **Need for transfer:** need arises because the own revenues of a lower level of govt are generally insufficient to meet the expenditure.
  - a) **Fiscal gap correction:** Fiscal gap occurs when there is mismatch between the expenditure needs and revenue means of a state.
  - b) **Minimum standard service:** To upgrade the existing level of service to ensure a common minimum standard across regions. eg. The Central Govt may provide grants to state to ensure a national standard in the provision of some public service say 70 liters of drinking water per person per day.
  - c) **Inter-jurisdictional spill overs:** Spill overs or spatial externalities occur where the benefits of a locally provided service spread to person who are not legally required to contribute to the costs of the service.

d) **Performance of agency functions:** To implement certain schemes of national importance eg disease control, preserving ecological balances, propagation of research and improved technology. Funds are provided to state govt to perform such agency functions.

B) **Forms of transfer:** Transfer from the higher level to lower level of govt are made in the form of:

a) **Tax sharing:** Formula based tax sharing is a predictable source of revenue and the state govt. automatically again from the buoyancy of the shared central taxes. There are two types of tax sharing mechanism. Under the first method called global sharing the whole of the central tax revenue forms a pool for sharing with the state govt.

The second method called scheduler or itemized sharing, involves sharing of revenue from individual central taxes. Tax sharing may take fixed amount of tax revenue. Central govt may share one buoyant tax.

b) **Grants:** They have the advantage of being targeted towards fiscally disadvantaged states to reduce horizontal fiscal imbalances. They can also be made conditional regarding their utilization. Grants are given mainly for the purpose of equalisation.

Keeping in mind the criteria of fiscal equity and efficiency three types of grants may be given by the central govt. to states.

i) General purpose or unconditional grants are given to offset fiscal disadvantages arising from lower taxable capacity.

ii) Specific purpose or conditional grants are tied to the achievement of specific objectives. They are used to ensure minimum level of specified public services to be provided by state govt.

**Loans:** Financial resources from the higher level of govt to lower level of govt also flow in the form of loans. These loans are given generally for capital projects.

c) **Principles of Transfer:** Central govt may keep in mind the following broad principles so that amount transferred is equitable distributed among the states.

- i) The schemes of transfer should be based on well defined objective criteria so that financially weak states are adequately assisted. These may include the size of population, level of economic development. Availability of infrastructure and minimum service standard.
- ii) The system of transfer should be so designed that states are not discouraged to mobilise resources on their own.
- iii) The amount of and frequency of transfer should be reasonably predictable. They should be pre-determined rather than being open - ended. Transparency through explicit and identifiable budget entries should also be ensured.

**Borrowing:** Long term borrowing by a govt are justified when the benefits of a capital project undertaken by it are likely to be reaped over a long period of time i.e by more than one generation of tax payers. The financing of such projects should place the repayment burden on the present as well as future generations. If long- term capital projects are financed out of current revenues and short term borrowings the future generations would enjoy free riding. Thus, it is both fair and efficient that project with long term benefits are financed through long term borrowings.

**Earmarking of Revenue:** It is a fiscal practice under which revenue from one or more sources is pooled into a separate independent fund which is used to finance a predetermined public service. The purpose of earmarking is to ensure stable funding of important public activities.

**Conditions for specificity earmarking:** The following conditions need to be satisfied:

- a) **Expenditure Specificity:** The tax payer should be able to identify its obvious benefits.
- b) **Tight linkage:** The linkage between earmarked revenue and fore-determined expenditure should be tight. If the amount earmarked is substantially less than the amount spent on the designated function, earmarking will be less effective.

iii) **Strong benefit linkage:** There should be a close correspondence between the tax levied and the benefit received.

## **UNIT-4**

# **INDIAN PUBLIC FINANCE**

## LESSON- 1

### SALIENT FEATURES OF INDIAN TAX SYSTEM

India is maintaining a broad-based & extensive tax structure. Various types of taxes are being levied in the country which are broadly classified between direct & indirect taxes. In term of tax effort, India is considered as one of the highly taxed countries. Although the rate of taxes are quite heavy yet coverage's of such taxes are not very wide in the country.

- 1) **In India Tax Rates are Generally Higher:** India has emerged as one of the highest taxed nation in the world. Ever since the advent of planning, we have been imposing new taxes. The rates on existing taxes are sometimes raised to astronomical figures (97.5%). Consequently, little is left as incentives to work, save & invest. People are now crying under the crushing burden of taxes – both direct & indirect.
- 2) **Multiplicity of Taxes / Tax Bases:** During the five years plans, taxation has been used in India as one of the main instruments to raise revenue & to achieve the various socio-economic objectives. New taxes have been imposed and tax rates have been increased to mobilize a large part of the income created as a result of economic development.
- 3) **Complicated Tax Structure:** Years after years we have been imposing new taxes & raising the rates of existing taxes. Consequently, our tax structure has become very complicated. As compared to this our population is very illiterate. People cannot understand this complicated tax structure.
- 4) **Inequitable Tax Structure:** Although we impose a large number of taxes, yet our tax structure lacks equity. According to Raja J. Chelliah, our tax system does not have either horizontal equity or vertical equity. By horizontal equity we mean that all tax payer with the same level of income, irrespective of the source of income, must pay the same amount of taxes. But we know that our agricultural sector, pays less taxes than the industrial sector.

By vertical equity, we mean persons having different level of income must pay differently i.e. persons with higher income must pay higher amount of taxes and persons with low income must pay lower amount of taxes. But this is not the case in India because of the predominance of indirect taxes which are regressive in nature.

- 5) **Our Tax Structure is not Anti-Inflationary:** Inflation is in built in the development process in a developing country. An ideal tax structure must cure this evil. Unfortunately, because of preponderance of indirect taxes, our tax structure is not anti-inflationary. Rather it has added fuel to the fire of inflation.
- 6) **Imbalance in the Tax Sources of States Vs Union:** Another unhealthy feature of our tax system is the increasing dependence of the states on the union Government, for their resource requirements. The Central Government often discriminates one state from the other in the matter of allocating funds.
- 7) **Tax Evasion:** It is almost impossible to ascertain correctly the extent of tax evasion in the country because of numerous difficulties involved in the process.

Therefore, there is an urgent need to reform our tax system. Although a number of initiatives to reform both undertaken since 1991, yet much more needs to be done.

## **DIRECT AND INDIRECT TAXES IN INDIA:**

A direct tax is one the ultimate burden of which falls on the person on whom it is levied. In other words, it is a tax that cannot be shifted from the original payer to someone else. On the other hand, indirect tax can readily be shifted to ultimate consumers of the commodity or service taxed.

According to J.S Mill, “A direct tax is demanded from the very person who is intended or designed should paid it. Indirect taxes are those which are demanded from one person in the expectation and intention that he shall indemnify himself at the expense of another”.

In the group of direct taxes, usually income tax, wealth tax, property tax, estate duties, capital gains tax, capital levy etc. are included. Some economists are of the view that it is possible to pass on the certain direct taxes under special circumstances. Corporate income tax, supposedly direct tax, is known to be shifted to consumers in many countries.

An indirect tax, on the other hand, is a tax which can be shifted from the original payer to the ultimate consumer of the commodity or service. Commodity taxes or sale taxes, excise duties, custom duties etc. are grouped as indirect taxes. Thus, an excise duty on cigarettes levied by the producers is usually passed on to the consumers in the form of higher prices. It may be noted that, direct taxes, though administratively inconvenient, are preferred because:

- a) They can be related to ability-to-pay.
- b) Reduce inequalities.
- c) Satisfy the principal of certainty.
- d) Revenue elastic and
- e) Create civic consciousness.

Indirect taxes (Hidden taxes) are convenient to collect but lack equity attribute. They do not allow considerations for the personal circumstances of tax payers as do direct taxes. However, it may be mentioned that indirect taxes can be made progressive because incidence of indirect tax depends on:

- a) The selection of commodities for taxation.
- b) The rate of the tax on them.

For making the commodity taxation progressive, it is desirable that luxuries and comforts are chosen for heavy taxation, whereas the necessities of life are either exempted or moderately taxed. However, in less developed countries the demand for luxury items is limited apart from being price inelastic. This phenomenon obliges the tax authorities to extend the tax net to daily requirement of the people. This has a tendency to fuel inflation.

## **MAJOR TAXES IN INDIA:**

### **Income Tax:**

Income tax occupies a prominent place in the field of direct taxation in our country. It was introduced in 1860 by Sir James Wilson to meet the financial stringency caused by the mutiny of 1857. The Govt. of India Act of 1935 laid down that a portion of the income tax be distributed to the provinces. On the recommendation of the Taxation Enquiry Commission, many steps have been taken to improve the administration of the tax. Today, income tax is a major source of revenue & in this tax not only the Central Government but the state Government are also virtually interested.

After independence, the government appointed an income tax investigation commission in 1947, to investigate all matters relating to taxation of income so as to prevent its evasion and avoidance. The commission recommended in its report in 1948 that all loop holes in income tax system be plugged. The income tax (amendment) act 1953 incorporated a number of recommendations of the commission. The income tax act 1961, as amended from time to time through annual finance act, is the basis of income tax in India.

### **Definition of Income:**

The initial basic step in the establishment of an income tax structure is the definition of income. In a broad sense, income consists of an economic gain a person has experienced during the period.

Following Henry Simons, income may be defined as the amount of economic gain received by a person during a particular period. These economic gains are the sum total of consumption income and net addition to wealth to a person during the period. The definition may be expressed as:

$$Y = C + \Delta W.$$

Where,  $Y$  = Income,  $C$  = Consumption, and  $\Delta W$  = Change in wealth.

The usual approach is in terms of flow of money and, to a limited extent, of commodities to a person.

### **Features of Income:**

- 1) The tax is levied on the net income of individual, not on the total income. Income can be classified as salary, interest on securities, income from property, income from any other source.
- 2) The rates at which income tax is levied, are fixed by the Annual Finance Act.
- 3) The income from agriculture is exempted from income tax.
- 4) Certain premium like on life insurance policies, provident fund, gratuity etc. are exempted from income tax.

### **Concepts of Income Tax:**

- 1) **Concept of Economic Gains:** Economists are not unanimous in regard to the definition of the concept of income. Following Henry Simons, income may be defined as the amount of economic gains received by a person during a particular period. These economic gains are the sum total of consumption income and net addition to wealth of a person during the period. Thus, consumption represents a part of the income during the period.
- 2) **Concept of Service Flow:** The other concept of income runs in term of service flow in consumption of all kinds of goods and services during the period. This concept excludes expenditure on saving. Thus, expenditure on durable goods, considered as saving, will not be included in the taxable income, though the money value of services rendered by the durable goods will be included. The money value of all goods & services whether purchased or produced will be included in the definition of income. But the most serious defect of this concept is that a considerable amount of income will escape tax since spending on durable goods by the rich people constitutes the major part of private expenditure, which will be considered as savings.

- 3) **Concept of Net Accretion:** There is still the third concept of income which considers in terms of net accretion. Hence, income should include not only realized incomes but also all forms of accrued income i.e. the claims on income. This is, perhaps, the most comprehensive definition of income since it includes all types of income received in any form during the given period. But this concept also could not be applied in practice mainly due to the difficulty of measuring the flow of income in kind.

### **Merits of Income Tax:**

The following are the major advantages of income tax:

- It confirms to the principle of ability-to-pay, through progression, exemption and abatements, super tax and surcharges etc.
- The incidence of income tax is upon the tax payer himself and cannot be shifted. It implies that, it is easy to locate the tax burden, and therefore, difficult to shift forward or backward. It means impact and incidence of the tax is on the tax payer himself.
- Income tax fulfills the canons of equity and justice in the distribution of tax burden. Therefore, taxation on income can be used as a powerful instrument for reducing inequalities in the distribution of income and wealth.
- It is a powerful tool for maintaining economic stability and employment.
- It satisfies most of the canons like equity, certainty, convenience, economy, productivity and elasticity. Thus, it is one of the most important sources of revenue for the government in most of the nations in the world.
- A tax on the income, like commodity taxation does not reduce consumption, as it is a tax on the surplus income i.e., certain amount of income is exempted which is meant for consumption and maintenance.

### **Corporation Tax:**

Corporation tax is a tax on the income of the companies. In India, it was levied after First World War and since then it has become an integral part of the Indian tax structure. In fact, corporation tax is evidently one of the most lucrative taxes in a developing economy.

Concept: The word corporation is derived from the Latin word “Corpari” which means “to form into a body”. Under Section 2(17) of income tax act 1961, for the assessment of companies, the expression ‘company’ is defined to mean the following:

- a) An Indian company and/or
- b) Any corporate body incorporated under the laws of foreign countries and;
- c) Any institution, association or a body which is assessed as a company for any assessment year commencing on or before April, 1970 or
- d) Any institution, association or a body, whether incorporated or not and whether Indian or non- Indian, which is declared by general or special order of control band of direct taxes to be a company.

The system of company taxation in India is patterned after the British system. The rates of corporation income tax are determined by the central board of revenue and they are mandatory. However, all organizations that qualify as corporations are not treated alike. Companies are taxed generally at the flat rates varying with the nature of income, residential status and class of company.

Corporation tax is levied on the income earned by the joint stock companies or corporate bodies. A corporation is legal identity separate from its owners i.e. the stock-holders. The corporation pays a tax on its net income while stock-holders pay a tax on dividend income under the individual income tax.

In short corporation tax is paid out of the taxable profits after meeting all costs i.e. interest charges, wages & depreciation cost etc. earned by the corporation during an assessment year & the remaining is to be distributed among the shareholders.

### **Characteristics of Corporation Tax:**

- 1) The companies are required to pay income tax at a flat rate as notified by the Finance Act which is enacted every year at the beginning of each financial year.
- 2) The companies are used obligation to pay income tax at source at the prescribed rate but the tax deducted is adjustable against tax liability of the share-holders.

- 3) Certain concessions are granted to companies.
- 4) New manufacturing companies are exempted from tax for the first five years. New industries in backward regions are also exempted for the period of ten years.

### **Arguments in favour of Corporation Tax:**

- 1) **Legal Entity:** The first view does not like to recognize the status of corporation as a separate legal entity & hence, does not find any justification for treating the income earned within corporation differently from the incomes earned outside the corporation. The absolutist view, on the other hand, recognizes that a corporation is a separate independent legal entity.
- 2) **Basis of Benefit Principle:** Corporation tax is also justified on the basis of benefit principle of taxation. The absolutists point out that a corporate business receives infrastructural benefits and many other advantages and amenities supplied by the government. Since these advantages and benefits come to the corporation as an organization and are different from the benefits available to the individuals, the tax on corporate incomes should be different from the tax on personal incomes.

### **Arguments Against Corporation Tax:**

- 1) **Double Tax:** It is held that a tax on corporate incomes will cause double taxation since the shareholders of the corporation are also subjected to personal income tax. This is, however, a wrong argument, since corporation is an independent entity, the tax it pays has its own justification and cannot be considered a part of the income of the shareholders.
- 2) **Burden on Consumers:** If corporation tax is imposed, the incidence will have to be borne by the consumers ultimately. This is because the corporation treats the tax as its cost of production which will be included in the price of the product. The incidence is less likely to be on shareholders because this will reduce dividends & hence may affect the attractiveness of investment to the corporation.

## **Expenditure Tax:**

There has been a very old debate regarding the criteria of a fair or just system of taxation. Though, income is frequently regarded as the most sound index of taxable capacity of a person, yet arguments have been advanced for an other criteria person in a specified period. Thus they put more reliance upon expenditure to income. The early advocates of expenditure tax include Hobbes, J.S Mill, Marshal, Pigou and Irving Fisher. However, the expenditure taxation was considered particularly impossible. These writers gave a very important argument for a tax on expenditure relating to the treatment of savings. An income tax discriminates against savings because it is said to give rise to double taxation of savings, this arises from the fact that income tax is levied on an income which is saved and then on earnings of such savings. Thus, income tax leads to a distortion of the choice of an individual between present and future consumption by reducing the net- income from saving and making them less attractive.

Following the recommendations of the Prof. Nicholas Kaldor, a tax on the personal expenditure was first imposed in India on April 1, 1958. The tax was introduced as an adjunct to the personal income. Tax as a part of a scheme to evolve a self-checking system of direct taxes in India.

Expenditure tax was withdrawn in the year 1962-63 budget on account of insignificant revenue yield and its failure to restrain ostentations expenditure, the prime saving. It was reintroduced in the 1964-65 budgets with the hope that the tax would help lessen inequalities of income and wealth. However, the tax was repeated again in 1966-67 budgets on the grounds of burden on administration and inconvenience to assess.

Some features of the expenditure tax in the last year of its operation i.e., 1965-66, were the following:

Corporations were not subject to tax, there was not any tax payer whose income from all sources did not exceed Rs 36000 in the base year (end March, 31). An individual tax payer and his dependents were entitled to a simple standard expenditure allowance of Rs 30000. There was also a long list of expenditures exempt from tax:

- a) Expenditure incurred on earning income.
- b) Investment expenditure either in connection with a business or in the nature of personal investments in deposits, loans, shares, securities, insurance policies etc.
- c) Charitable expenditures.
- d) Expenditures by way of gifts, trust and settlements.
- e) Expenditures on union, state and local government taxes and
- f) Cost of legal proceedings, expenditure on marriage, medical treatment, maintenance of parents and education outside India, up to specified limits.

### **Agricultural Expenditure Tax:**

In India, agriculture is the main productive sector which contributes more than 50 percent to the gross national product. However, under provisions of the Government of India Act 1935, the provinces were given the right to impose a tax on agricultural income & the same position have been maintained in the constitution of India as well. Taxation Enquiry Commission suggested that “Income from agriculture should be taken into account for the purpose of determining the rate of tax on the other income of the same person if it should prove administratively feasible and practically worthwhile”.

### **Arguments in favour of Agricultural Taxation:**

- 1) **Equity & Justice:** The most favourable arguments for imposition of agricultural taxation is that it is based on the principle of equity. In fact, it helps to remove in equality between agriculturists & non-agriculturists.
- 2) **Helpful for Raising Marketable Surplus:** Since mid-sixties, Green Revolution / New agricultural strategy has raised agricultural productivity. In turn, higher production & marketable surplus have the needs of non-agricultural sector.
- 3) **Scope for more Resource Mobilization:** It provides sufficient scope for more resource mobilization. In Indian context, it is stated that our five year plans have suffered a lot on account of paucity of domestic resources. It is therefore, strongly argued that when

Government is making huge investment on the development of the agricultural sector, why not this sector bear somewhat burden by sharing additional taxation.

- 4) **Progressive Nature:** Agricultural tax is considered highly progressive on the pattern of personal income tax. Due to this progressive the agriculturists, are required to pay higher doses of taxation as compared to their counterpart.
- 5) **Higher Level of Earning:** As a consequences of large scale investment in agricultural sector, the earning of the farmers has tremendously increased. The adoption of modern technology has enhanced their production & income to main-fold. Thus, it calls to meet tax liability in the larger interest of the country.
- 6) **To Check Tax Evasion:** The imposition of agricultural taxation will be helpful to check tax evasion of non-agricultural taxation. People try to manipulate to show their income from agricultural sector which is not under the purview of any taxation. They convert their black money into white by showing it as an income from agricultural farm. It will go a long way to check tax evasion and back marketing.

#### **Case Against Agricultural Tax:**

- 1) **Constitutional Problem:** The foremost problem in the imposition of agricultural taxation is the constitution. As the power to tax agricultural income vests in the state Govt. while under constitutional provisions, centre is not allowed to do so. For this purpose, major amendments will have to be made in the constitution.
- 2) **Administrative Problem:** The introduction of agricultural taxation will create administrative problems as it is difficult to assess the farm income since the cultivators hardly maintain account books. Even in well advanced countries, it is difficult to determine the cost of production and assessment of net income from agricultural sector.
- 3) **Small Size of Holding:** The small size of holding has limited the scope as significant revenue cannot be obtained from this source. As a matter of fact, in India 66% holding has been recorded less than 5 acres.
- 4) **Disharmony to Rural Peace:** Some critics are still of the opinion that levy of agricultural taxation will disturb the village peace. This the reason, most of the farm community opposes direct agricultural taxation tooth & nail.

- 5) **Already overloaded Taxation:** The agricultural community is being covered under the net of taxation as its diversification nature. After Green Revolution, well to do farmers are paying taxes on different inputs. Hence, there is no further scope for additional taxation on agricultural.
- 6) **Wide Fluctuations:** It has also been noticed that there are wide fluctuations in output and prices of various crops. This results in wide fluctuations in farm income which leads to indefinite basis of taxation and hence it will create other problems.
- 7) **Conclude the discussion,** we quite agree with the views pointed out by I.S. Gulati & V.N Kothari, who have rightly stated, “As its extreme, a tax on current agricultural produce is tantamount to taxing land use & exempting non-use of land. Thus, if the land tax is replaced by agricultural income, there is likely to be a transfer of land from productive to unproductive or less efficient use & the pace of improvement is likely to slacken.....”.

### **Analysis of individual taxes: Indirect taxes**

#### **Service Tax:**

The service tax is important for accelerating the growth process in the economy as it helps agriculture and industry. Today services cover wide range of activities as such as management, banking, insurance, hospitality, administration, communication, entertainment, wholesale distribution and retailing including research & development activities. Service sector is now occupying an important stage of the economy so much so that in the contemporary world, development of service sector has become synonymous with the advancement of the economy.

Broadly defined, the service sector includes all economic activities whose output is not a physical product. There are three sectors in an economy viz. primary sector, secondary sector & tertiary sector or service sector. Primary sector includes agriculture, forestry & fisheries. Secondary sector includes mining, manufacturing and construction. Tertiary sector or service sector covers trade, transport, communication, finance, social & personal services.

The growth of service sector & its contribution to income & employment generator indicators of economic development.

### **The Value Added Tax (VAT):**

The value added tax (VAT) was first proposed by a German Industrial executive in 1918. Its actual application was made only in 1953 by the state of Michigan (USA). It was introduced in France in 1954 to do away with the evils of the complex and countries of the European Economic Community decided to adopt it in 1967. It was also advocated to USA. Presently, it has engaged the attention of many other countries since it is considered to impart a greater degree of flexibility to the state revenues and hence it can play a highly useful role in stabilization policies.

### **Meaning of VAT:**

VAT is a multi-point tax with set off for tax paid on purchases. VAT is an indirect tax which is imposed on 'value added' at the various stages of production. Value added refers to the difference between value of output & value of intermediate consumption. It is imposed of each stage of production & is a proportionate tax. It does not have considered in installments at each transaction in the production-distribution system. It does not have cascading effect due to the system of deduction or credit mechanism.

It is a tax on the value added to a commodity or service. The value added by the business firm is the difference between the receipts from the sale of the firm's product and sum of the amount paid by the firm for the goods and services purchased during the period from business firms; it is equal to the sum of the factor payments made by the firm. For a very simple example; a retailer pays Rs 10 for a loaf of bread and sells it for Rs 12, the share has added Rs 2 of value to the bread.

Further, it may be mentioned here, that in the production process, each commodity passes through several stages of production and at each stage some value is created or added. The total value of a commodity as it reaches in the hands of final user is the sum of values created at the successive stages of production.

We may state that it is a tax on the consumption. The final and total burden of the tax is fully and exclusively borne by the domestic consumers of goods and services. It being a tax on domestic consumption, no VAT is charged on goods exported. It is an alternative mechanism of collection of tax. VAT is therefore, a multi-stage sales tax as a proportion of value added, that is sales minus purchases, which is equivalent to wages plus profits.

### **Computation of VAT:**

Value added tax at a particular stage is measured through alternative approaches:

1. Subtraction method.
2. Addition method.

Both these approaches are based on identity that total sales proceeds of a firm from its output during a given period are equal to the cost of input i.e., wages, rents, interests, depreciation and profits.

Under the subtraction method, value added is measured by deducting the value of inputs from the value of output (O-A). If the cost of inputs is deducted from the total proceeds, the remainder represents the sum of factor income plus depreciation.

In the addition method the value added is computed by adding all the payments to the factors of productions, viz, wages, rent, interest and profits.

In implementing VAT, most countries use an amended form of the subtraction method. The subtraction method of applying VAT may be described as:

$$\text{VAT} = t (O - A)$$

Where, 't' is the tax rate, 'O' is the value of output and 'A' is the value of inputs.

Now,  $t(O - A)$  can be remitted as  $(tO - tA)$ , that is VAT can be collected as the difference between the tax payable on output and the tax paid on inputs. This method of computing and collecting VAT is called the input tax credit method. Under this method, the VAT liability of a seller is equal to the tax arising from its total sales minus a credit for the tax paid by it on its purchases. The seller charges full tax from his buyer but pays the government the difference between the taxes charged and the one already paid on (seller's) inputs.

VAT is an indirect tax which is imposed on 'value added' at the various stages of production. Value added refers to the difference between value of output & value of intermediate consumption. It is imposed of each stage of production & is a proportionate tax.

Suppose a retailer buys a book from a publisher for Rs.100 & sells it to his customer for Rs.110. In this case he has added Rs.10 to the value of the book. In this way, Rs.10 is the value added.

### **Features of VAT:**

- 1) **Simple form of Taxation:** A VAT is considered superior to other indirect taxes on the ground that it is quite simple & a single stage tax as against the multipoint taxes.
- 2) **Less Scope for Tax Evasion:** Since VAT is divided into several stages of production, there is less possibility of evasion of tax.
- 3) **Easy Method of Investigation:** It makes the taxation authorities quite easy to investigate the large size of the firm where tax is collected.
- 4) **Less Burdensome:** The VAT system has the advantage as it is less burdensome. It is received & collected in small fragments at different stages of production & the tax payers do not feel any burden of it.

- 5) **Promotion of Export:** The VAT encourages the export of the country to be in competition in the international market, the government declares some relief on export goods.
- 6) **Burden of Tax is Shared by all Factors:** Another argument is also advanced by the supporters of VAT that its burden is shared by different factors of production like wages, interest, rent & profit. Thus, it encourages productivity.
- 7) **Alternative to other Taxes:** The VAT is favoured on the ground that it is considered to be a better alternative of other types of taxes such as sale tax, excise duty etc.

#### **Excise Customs:**

- A) **Union Excise Duty:** Excise duty is the most crucial source of revenue to the union Government. Thus excise duty is a tax on the production of a commodity. It is imposed before the commodity reaches the consumer for consumption. According to the Indian constitution, the Central Government is empowered to levy excise duties on all commodities produced in India except alcoholic liquors, opium & other narcotics. These are within the jurisdiction of the State Governments.
- B) **Custom Duties:** Taxes levied on the export are known as custom duties. Previous custom duties remained as an important source of revenue for the Government of India. It can be studied under two headings.
  - a) **Export Duty:** After independence, export duties were levied on quite a large no. of commodities with the objective other than collection of revenue. It is levied to achieve stability of domestic prices in the internal market, to reduce export of raw material to face foreign competition and making necessary adjustment in the events of devaluation of currency. Attempts have been made to encourage exports with imports substitution through this duty, to obtain favorable BOP. This is possible only through export promotion & import substitution. At present articles covered under export duties include tea, jute, cigarette, textiles etc.

- b) Import Duties:** The main idea of import duties is to discourage import of an article so that domestic market is protected. They also help to raise sufficient revenue to the Central Govt. The duty is collected from the importers by the Central Govt. when the goods enter into the country. Presently, the main goods on which import duties are imposed include sugar, kerosene, copper, iron tools, motor vehicles etc.

## **Lesson-2**

### **Tax Reforms Since 1991**

#### **Report of the Tax reform committee (TRC):**

Tax reform since 1991 was initiated as a part of the structural reform process following the economic crisis of 1991. TRC adopted an approach of combining economic principles with conventional wisdom in recommending comprehensive tax system reforms. There are three parts in the report. In the first interim report, the committee set out the guiding principles of tax reform and applied them to important taxes namely, taxes on income and wealth, tariffs and taxes on domestic consumption. The first part of the final report was concerned mainly with the much neglected aspect of reforms in administration and enforcement of both direct and indirect taxes. The second part of the report dealt with restructuring the tariff structure. In keeping with the structural adjustment of the economy, the basic principles taken in the recommendations were to broaden the base, lower marginal tax rate, reduce rate differentiation, and undertake measures to make the administration and enforcement of the tax system more effective. The overall thrust of the TRC was to;

1. Decrease the share of trade taxes in total tax revenue.
2. Increase the share of domestic consumption taxes by transferring the domestic excises into VAT and

### 3. Increase the relative contribution of direct taxes.

The important proposal put forward by the TRC included reduction in the rates of all major taxes, viz. customs, individuals and corporate income taxes and excises to reasonable levels, maintain progressivity but not such as to induce evasion. The TRC recommended a number of measures to broaden the base of all taxes by minimizing exemptions and concessions, drastic simplification of laws and procedures, building a proper information system and computerization of tax returns, and a thorough revamping and modernization of the administrative and enforcement machinery. It also recommended that the taxes on domestic production should be fully converted into a value added tax, and this should be extended to the wholesale level in agreement with the states, with additional revenues beyond the post manufacturing stage passed on to the state governments.

In the case of customs, the TRC recommendations were the weakest. The TRC recommended tariff rates of 5, 10, 15, 20, 25, 30 and 50 to be achieved by 1997-98.

The TRC recommendations also falls much short of developing a co-ordinate domestic trade tax system in the country. This in a sense is understandable as it has no mandate to go into the state level taxes. However, the committee was the aware of the serious problems of avoidance and evasion in respect of sales tax levied by the states predominantly at the manufacturing stage. Therefore, it did recommended the extension of the central VAT to the wholesale stage with the revenues from the extended levy assigned to the states.

## **NON-TAX REVENUE OF CENTRE AND STATE**

The Govt. of India also decided to run the public utility like the railway, the post-office, telegraph, coinage and currency. These services yield profit a part of which is credited to the revenue of the Central Govt. Thus, public utility concerns are a source of income. The revenue derived from public enterprise or public concerns has become an important source of non-tax revenue of the Govt. of India. Besides, the non-tax revenue of the Govt. includes revenue from

General Services, Social and Community Services, Economic Services. The main types of the non-tax revenue of the Govt. of India are as follow:

- 1) **Fiscal Services:** The revenue from fiscal services include the revenue from currency, coinage and mint and other fiscal services such as receipt from penalties realized by the enforcement directorate from various firms, parties etc. for violation of the foreign exchange Regulation Act and receipt from forfeiture of property.
- 2) **Receipts from Interest:** The sources of non-tax revenue includes interest receipts on loan advanced to (a) State and union territory Govt., (b) Interest on the capital invested in Railways & (c) Post, Telegraph, and (d) others.
- 3) **Dividends and Profits:** This head includes the dividends and profit from, Railways, Post and telegraph (separately) Reserve Bank of India and others.
- 4) **Revenue from other General Services:** The revenue from General Services includes from
  - a) Public service commission
  - b) Police
  - c) Supplies and disposal
  - d) Stationary and printing
  - e) Public works
  - f) Other administrative service
  - g) Contribution and recoveries towards pension and retirement benefit
  - h) Miscellaneous General Services.
- 5) **Social and Community Services:** The Govt. also receives income from social and community services such as:
  - i) Education Art and Culture
  - ii) Medical and Public Health
  - iii) Family Welfare
  - iv) Public Health, Sanitation and Water supply
  - v) Housing

- vi) Urban Development
- vii) Information and Publicity
- viii) Broadcasting
- ix) Labour and Employment
- x) Social Security and Welfare

**6) Economic Services:** Economic services include such heads as:

- a) Agriculture and allied activities and Delhi Milk Scheme
- b) Irrigation and Flood Control
- c) Energy
- d) Industry and Minerals
- e) Transport
- f) Communications
- g) Science Technology and Environment

**FOREIGN AID: GRANT IN AID AND CONTRIBUTION:** The Govt. receives financial assistance from foreign friendly countries. These friendly countries provide financial assistance in shape of loans, cash, grant and commodity grants. India has also received cash grants and commodity grant from foreign countries from Canada, Czechoslovakia, Denmark, Japan, U.S.S.S.R. U.K etc. Besides it also received loan and cash from international institution such as I.M.F., I.B.R.D, I.F.C and W.T.O.

#### **NON-TAX REVENUE OF UNION TERRITORIES:**

The receipts of the Union Territories (without legislature) mainly relate to Administrative Service, Sale of Timber and Forest produce mainly in Adaman and Nicobar Islands, receipts from Chandigarh Transport undertaking and receipts from shipping revised estimates for the year 2006-07 are Rs.724.52 crore and the budget estimates for 2007-08 are Rs.710.59 crore.

## **FISCAL CRISIS:**

In early 1991, a major economic crisis surfaced in India. Most economists are now convinced that this crisis in the economy was the worst that this country had experienced since independence. The origin of the crisis is directly attributable to the cavalier macro management of the economy during the 1980s which led to large and persistence macroeconomic imbalances. The gulf crisis in the late 1990 sharply accentuated macroeconomic problems. There was also political instability in the country at this juncture.

### **The Fiscal Imbalance:**

The fiscal crisis in 1990 was not a co-incidence. The fiscal situation has deteriorated throughout the 1980s due to growing burden of non-development expenditure. The gross fiscal deficit of the central government which was 5.1 per cent of GDP in 1981-82 rose to 7.8 per cent in 1990-91. Since, this fiscal deficit had to be met by resource to borrowings the internal debt of the central government increased rapidly rising from 33.3 per cent GDP at the end of the 1980-81 to 49.7 per cent of GDP at the end of 1990-91. Interest payments which were 2 per cent of GDP and 10 per cent of total central government expenditure in 1980-81, rose to 3.8 per cent of GDP and 22 per cent of total central government expenditure in 1990-91. How alarming this fiscal situation was can be realized from the fact that in 1990-91 interest payments had eaten up 39.1 per cent of the total revenue collections of the central governments. This obviously was as unsustainable situation. The danger of the government falling into debt trap was real.

## **FISCAL SECTOR REFORMS IN INDIA**

### **FISCAL ADJUSTMENTS:**

According to a widely held opinion in government circles, fiscal adjustments is necessary for dealing with the twin problems of high domestic inflation and large deficits in the balance of payments. Fiscal deficit of the central government was less than 4 per cent of GDP at the

beginning of 1970s. It, however, rose to about 5.1 per cent of GDP by the beginning of the 1980s and was as large as 7.8 per cent of GDP in 1990-91. The government having recognized that such high level of fiscal deficit, both overall and on revenue account were not sustainable, committed itself to a policy of fiscal adjustment.

The central government initiated a programme of fiscal adjustment under which its fiscal deficit which was around 7.8 per cent of GDP in 1990-91 was reduced to 5.6 per cent in 1991-92 and stood at 5.3 per cent in 1992-93. The fiscal situation in fact deteriorated in 1993-94 and the fiscal deficit of the central government once again rose to 7 per cent of GDP. After this, there was a decline in fiscal deficit for four years but in 1998-99, the fiscal deficit again rose 6.5 per cent of GDP. This was followed by a reduction in fiscal deficit. The government adopted the FRBM (Fiscal Responsibility and Budget Management) act in 2004 and in accordance with this act, brought down the fiscal deficit to 3.3 per cent of GDP in 2006-07 and 2.5 per cent of GDP in 2007-08. However, the year 2008-09 witnessed a massive fiscal deficit as 6 per cent as because of economic slowdown, tax revenue fall on the one hand and the government announced a number of concessions and increased public expenditures to boost demand in the economy on the other hand. In 2009-10 the fiscal deficit of central government rose further to 6.5 per cent of GDP. In 2010-11, it fell to 4.8 per cent of GDP but again rose to 5.7 per cent of GDP in 2011-12. It was 5.2 per cent of GDP in 2012-13.

Having failed in correcting hard corrective measures, the government has opted for some soft options such as such as reduction in capital expenditures and social services in real terms. A fall in capital expenditures by government is generally expected to cause an overall decline in the rate of capital formation, while the containment of expenditures on social services adversely affects the human well-being. The rate of gross capital formation in the public sector fell from 10.6 per cent of GDP in 1990-91 to 7.9 per cent of GDP in 2011-12.

## **Lesson- 3**

### **THIRTEEN FINANCE COMMISSION:**

The 13<sup>th</sup> Finance Commission was appointed by the President of India under the Chairmanship of Dr. Vijay L. Kelkar. Finance Commission submitted its report on 29<sup>th</sup> Dec, 2009 covering the period from 1<sup>st</sup> April 2010 to 31<sup>st</sup> March, 2015.

The government on February 25, 2010 presented the 13<sup>th</sup> finance commission's report in the parliament. The Finance commission in its report recommended that the government set their fiscal house in order. Commission has suggested a roadmap for the introduction of a single goods and service tax (GST).and have also recommended the center to reduce the debt to 45 per cent of GDP by March 2015 from the current level of 54.2 per cent. For states the reduction in debt is recommended at 2 percentage points to 25 per cent. Report recommends that the state's contribution in centrally sponsored schemes should be 50 per cent of the cost, against 40 per cent for the schemes like Sarva Shiksha. Commission suggested initiating the fiscal consolidation in 2011-12 that the center can reduce the level of fiscal deficits to 3 per cent of the GDP by 2013-14. The government should also ensure the zero revenue deficits so that borrowing is used to meet investment requirements. Prescribing a zero revenue deficit as the golden rule, the commission has recommended that the endeavor for all states should be to attain that level by 2014-15.

### **Recommendations of 13<sup>th</sup> Finance Commission:**

#### **1) Restricting Public Finance:**

- Combined debt GDP ratio to be brought down to 68% by 2014-15. Combined debt includes debt of 50<sup>th</sup> Central & State Govts.
- Fiscal deficit to GDP ratio for the Central Govt. is targeted to be reduced to 3% and that of all State Govts. In aggregate to 2.4% by 2014-15.

- Revenue deficit to GDP of Central & State is to be brought down to (-) 0.5% by 2014-15.

## 2) **Sharing of Union-Tax Revenue:**

- The proposed share of states in the net proceeds of shareable Central taxes is increased from 30-50% as per 12<sup>th</sup> finance commission recommendation to 32%. This proposed share of 32% is uniform for all the states irrespective of the fact they levy less on sugar, textiles & tobacco.
- Over all ceiling on transfers to state is fixed at 39.5% of centres gross revenue receipt.
- Under the criteria adopted by 13<sup>th</sup> finance commission 51.9% of total sharable central taxes would go only to 5 states namely

i)	Utter Pradesh	-	19.7%
ii)	West Bengal	-	7.3%
iii)	Bihar	-	10.9%
iv)	Madhya Pradesh	-	7.1%
v)	Andhra Pradesh	-	6.9%

and rest 23 states would get only 48.1% of total sharable central taxes.

## 3) **For Disaster Relief:**

- It is recommended that National Climate Contingency Fund (NCCF) should be merged with National Disaster Relief Fund (NDRF).
- The size of NDRF worked out at Rs.33,581 cr.
- For general category states, Centre & State Govt. will contribute to NDRF in the ratio of 75:25 for backward states, centre states will contribute in the ratio of 90:10.

**4) Grant in Aid to States:**

- The commission has recommended that grant of Rs.318581 cr. to states. It comes to 18.03% of total transfers.
- Non-plan revenue deficit grant of Rs.51800 cr. has been recommended for 8 states for the period 2010-15.
- Grants recommended for elementary education (Rs.24068 cr.) environment protection (Rs.15000 cr), maintenance of roads & bridges (Rs.19930 cr.), reduction in infant mortality rate (Rs.5000 cr.), water management (Rs.5000 cr.), improvement in supply of justice (Rs.5000 cr.) respectively.

**5) Goods and Service Tax (GST):**

- A grant of Rs.50000 cr. is recommended for compensating loss to states due to implementation of GST. This amount would shrink to Rs.40000 cr. on April, 2013 & further to Rs.30000 cr. on April, 2014.

**6) Irregular & Insufficient Grant-in-Aid:** Local bodies have to depend upon grant-in-aid being given to them by State Govt. Generally it is observed that not only these grants are insufficient, they are also not being received regularly & in time, with the result the local bodies are compelled to postpone their working over several projects.

**7) Lack of Autonomy:** Local bodies lack autonomy. They are not free to raise revenue according to their requirements. They are required to work under the control & supervision of State Government. In its action taken report, the government has accepted the most of the recommendations of the 13<sup>th</sup> finance commission. The government has accepted GST and the new fiscal responsibility roadmap in principle will be worked out to meet the target set out by the commission.

**8) On local bodies:** The thirteenth finance commission observed that across states all local bodies indicated their inability to meet the basic needs of their constituents and urged the commission to increase the volume of grants to them. They particularly cited the need to provide core services-drinking water, sewage, solid waste management and street light at acceptable level of series. They also requested support for enhancing their operational

infrastructure including office buildings and Skelton staffing for maintaining accounts and data base.

The ministry of Panchayati raj urged the commission to substantially support PRI's to enable them to effectively provide basic services to their constituents. Only 52% of the rural population has access to basic sanitation. The department of drinking water has underlined the large investments required to be made in rehabilitation and maintenance as well as for new schemes to ensure full coverage of drinking water and to the entire rural population. The ministry of urban development highlighted the major challenges currently being faced by the urban sector. On the one hand, urban population of the country is projected to increase from 28% of the total population to about 38% by 2026. Urban growth will account for two thirds of the projected population increase. On the other hand, the current state of supply of core services in the urban areas is below norms.

The commission felt that there is, thus, an undisputed need to bolster the finances of the rural as well as local bodies. All local bodies need to be supported through a predictable and buoyant source of revenue, substantially higher than the present levels, in addition to their own tax revenues and other flows from state and central governments. Simultaneously, local bodies should also be made accountable in the discharge of their functions their accounts and audit must be up to date.

The finance commission examined the constitutional imperatives on transfers to local bodies. Taking into account the demand of local bodies that they be allowed to benefit from the buoyancy of central taxes and the constitutional design of supplementing the resources of Panchayats and municipalities, through grants-in-aid be transferred a percentage of the divisible pool of taxes as stipulated by it, after converting this share to grants-in-aid under Article 275.

Keeping these factors in mind, the commission recommended that grants be given to local bodies.

The commission proposed to award 2.28% of the relevant divisible pool as grant to local bodies. This is relevant to 1.93% of 2010-15 divisible pool-the relevant period for the

commission. The commission recognized the need to specially support areas covered by V and VI schedules and areas exempted from the purview of part X and IX of the constitution, for a number of reasons including those mentioned by SARC. The commission therefore proposed to carve out a small portion of the basic grant and allocate it exclusively for the development of these areas termed as 'special areas'. Eligibility for the special areas grant has been computed on the basis of population in these areas. An amount of Rs 20 per capita per year has been allocated as 'special areas basic grant'. This special area basic grant will be accessible by all the eligible states for all five years.

As per the revenue projections of the commissions, total grants recommended for local bodies aggregates to Rs 87519 crores over the award period.

**9) Other Recommendations:**

- The process of disinvestment of public sector undertaking (PSUs) should be credited to consolidated fund. All non-working PSUs should be closed down.
- In case of Macroeconomic shocks, instead of increasing the borrowings limit of states, centre should borrow and provide funds to state government.

**Lesson-4**

**A REVIEW OF INDIAN TAX COMMITTEES OVER THE PAST FEW YEARS**

**Chelliah Committee:**

The Government of India constituted a committee of experts to examine the structure of direct & indirect tax under the chairmanship of Dr. Raja J. Chelliah.

**Important Features of the Report:**

- 1) With a view to increasing revenue tax reforms committee recommended broadening the tax base for both direct & indirect taxes.

- 2) The committee also recommended abolition of interest tax to encourage more domestic savings.
- 3) The committee recommended lowering of rate of tax both for individual & corporate assesses.
- 4) It recommended value added (VAT) for Excise Tax System.

### **Financial Problems of Local Bodies:**

- 1) **Insignificant Role in Public Finance:** Financially & economically local bodies in India do not play an important role in the entire system of public finance. In our country the share of public revenue of local bodies is very small as compared to developed countries.
- 2) **Insufficient & Inelastic Resources:** Whatever resources are available to the local bodies they are so inelastic that these bodies are not able to augment those resources even to meet any serious crisis.

### **Choksi Committee Report:**

In June 1977, a five member committee was appointed to look into the working of direct taxes machinery under the chairmanship of Shri N.A Palkhiwala. Since Shri Palkhiwala was sent to the U.S.A as Ambassador & Shri C.C Choksi was appointed as chairman of the committee in his place.

### **Recommendation:**

- 1) A congenial atmosphere of mutual confidence & good behaviour between the assesses & assessors must be built up so that the tax-payers voluntarily follows the tax laws.
- 2) The committee felt that there must be one tax which may cover all four taxes – income – tax, surtax, gift tax & wealth tax.
- 3) The level of consumption should not be accepted as a basis of levying income-tax.
- 4) All recommendation made in the report should be implemented simultaneously.
- 5) The maximum rate of income tax should be 60% & surtax should be merged with this limit.

## **Jha Committee Report (Indirect Taxes Enquiry Committee):**

Indirect taxation is a complex affair in India. All public bodies, centre, state & local self governments mostly depend on indirect taxes. They provide around 70% of the revenue. But, most of the indirect taxes are in vogue.

With this view, the Government of India constituted 'Indirect Tax Enquiry Committee' under the chairmanship of Shri L.K Jha to examine the working of indirect taxes, specifically, union excise duties. First part of the report was submitted in January in 1978 & second in April 1978.

### **Main Recommendations:**

- 1) **Sale Tax:** The committee recommended that there should be a central legislation to bring about uniformity in the structure of sales tax among all the states.
- 2) **Value Added Tax:** The committee held the view that value added tax was not the substitute of either excise duty or sales tax.
- 3) **Octroi:** The Jha committee felt that octroi was useless & undesirable tax which blocks free movement of trade.
- 4) **Excise Duties:** It was recommended that excise duties should be rationalized right from the first stage to the final stage.
  - i) Black money & prevent tax evasion
  - ii) To suggest measures for checking tax avoidance.
  - iii) To recommended suitable action for minimising the rise arrears.
  - iv) To examine various exemptions allowed under tax law.
  - v) To suggest ways of improvement of tax administration