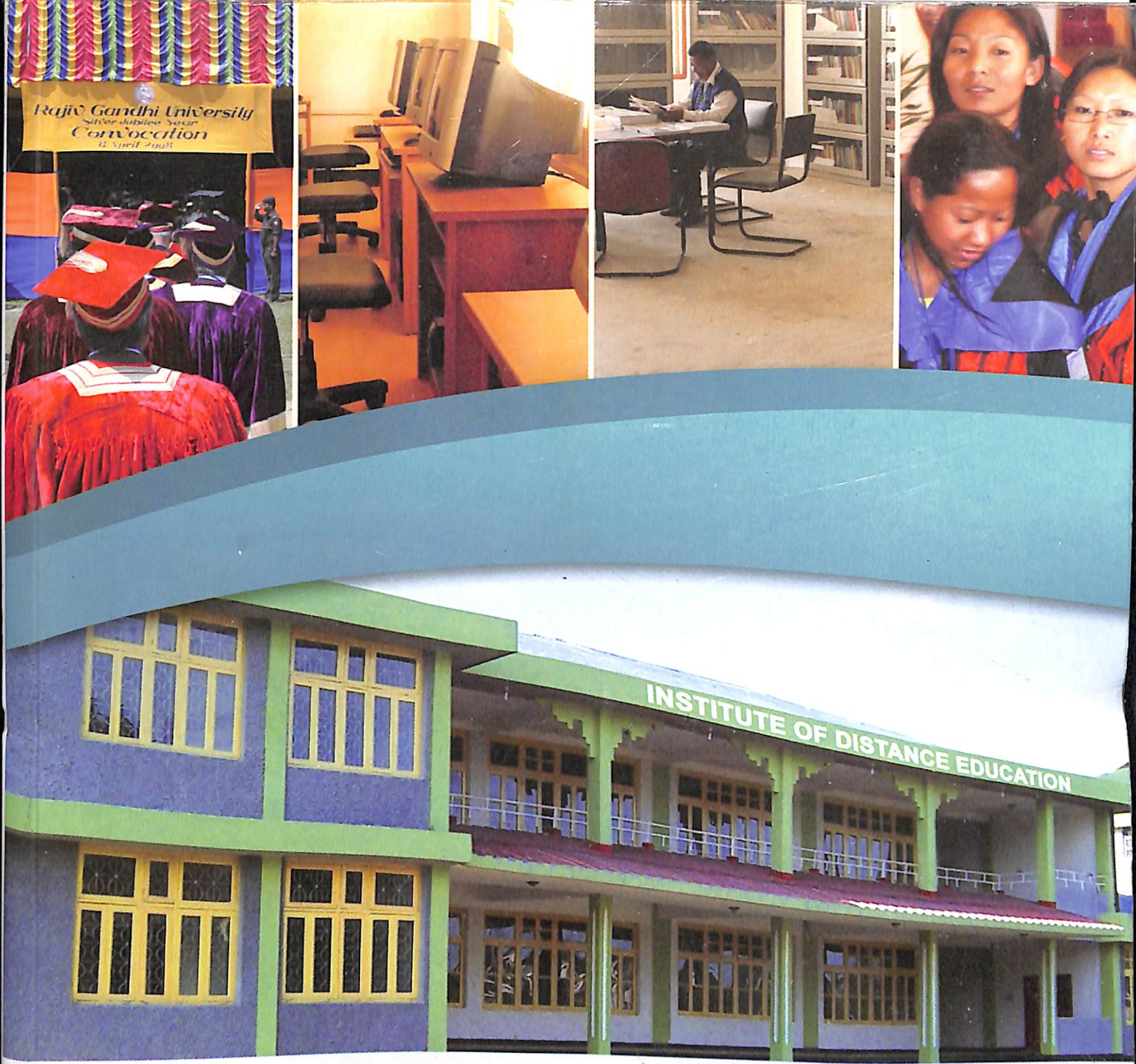


MA (Economics)

FIRST SEMESTER

MAECO 403

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PUBLIC FINANCE

PUBLIC FINANCE

MA [Economics]

First Semester

MAECO 403

RAJIV GANDHI UNIVERSITY

Arunachal Pradesh, INDIA - 791 112

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Phone: 0120-4078900 • Fax: 0120-4078999
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About the University

Rajiv Gandhi University (formerly Arunachal University) is a premier institution for higher education in the state of Arunachal Pradesh and has completed twenty-five years of its existence. Late Smt. Indira Gandhi, the then Prime Minister of India, laid the foundation stone of the university on 4th February, 1984 at Rono Hills, where the present campus is located.

Ever since its inception, the university has been trying to achieve excellence and fulfill the objectives as envisaged in the University Act. The university received academic recognition under Section 2(f) from the University Grants Commission on 28th March, 1985 and started functioning from 1st April, 1985. It got financial recognition under section 12-B of the UGC on 25th March, 1994. Since then Rajiv Gandhi University, (then Arunachal University) has carved a niche for itself in the educational scenario of the country following its selection as a University with potential for excellence by a high-level expert committee of the University Grants Commission from among universities in India.

The University was converted into a Central University with effect from 9th April, 2007 as per notification of the Ministry of Human Resource Development, Government of India.

The University is located atop Rono Hills on a picturesque tableland of 302 acres overlooking the river Dikrong. It is 6.5 km from the National Highway 52-A and 25 km from Itanagar, the State capital. The campus is linked with the National Highway by the Dikrong bridge.

The teaching and research programmes of the University are designed with a view to play a positive role in the socio-economic and cultural development of the State. The University offers Undergraduate, Post-graduate, M.Phil and Ph.D. programmes. The Department of Education also offers the B.Ed. programme.

There are fifteen colleges affiliated to the University. The University has been extending educational facilities to students from the neighbouring states, particularly Assam. The strength of students in different departments of the University and in affiliated colleges has been steadily increasing.

The faculty members have been actively engaged in research activities with financial support from UGC and other funding agencies. Since inception, a number of proposals on research projects have been sanctioned by various funding agencies to the University. Various departments have organized numerous seminars, workshops and conferences. Many faculty members have participated in national and international conferences and seminars held within the country and abroad. Eminent scholars and distinguished personalities have visited the University and delivered lectures on various disciplines.

The academic year 2000-2001 was a year of consolidation for the University. The switch over from the annual to the semester system took off smoothly and the performance of the students registered a marked improvement. Various syllabi designed by Boards of Post-graduate Studies (BPGS) have been implemented. VSAT facility installed by the ERNET India, New Delhi under the UGC-Infonet program, provides Internet access.

In spite of infrastructural constraints, the University has been maintaining its academic excellence. The University has strictly adhered to the academic calendar, conducted the examinations and declared the results on time. The students from the University have found placements not only in State and Central Government Services, but also in various institutions, industries and organizations. Many students have emerged successful in the National Eligibility Test (NET).

Since inception, the University has made significant progress in teaching, research, innovations in curriculum development and developing infrastructure.

SYLLABI-BOOK MAPPING TABLE

Public Finance

Syllabi	Mapping in Book
Unit I: Rationale for Government Intervention Role of government in economic activity: Allocation, distribution and stabilization functions-Provision of public goods and merit goods-Externalities, market imperfection and government intervention.	**Unit 1:** Rationale for Government Intervention **(Pages 3-24)**
Unit II: Size of Government Expenditure The classical & neoclassical views on the size of the government & its expenditure; Wagner's law of increasing state activities, Keynesian view, effects of public expenditure.	**Unit 2:** Size of Government Expenditure **(Pages 25-47)**
Unit III: Major Theories of Public Expenditure Voluntary exchange principle and Lindahl's model-Samuelson's model. Musgrave's optimum budget model-Paradox of voting.	**Unit 3:** Major Theories of Public Expenditure **(Pages 49-61)**
Unit IV: Principles of Taxation Canons of taxation, benefit & ability to pay approaches, neutrality in taxation; taxable capacity, absolute and relative; factor determining taxable capacity; regressive, proportional and progressive tax; overview of Indian Tax System.	**Unit 4:** Principles of Taxation **(Pages 63-113)**
Unit V: Effects of Taxation Tax on income and its effect on work effort, commodity tax: unit and advalorem, impact and incidence; effects of tax on production and price in different market conditions; elasticity and buoyancy of tax.	**Unit 5:** Effects of Taxation **(Pages 115-141)**
Unit VI: Public Budget Classification of public budget: Incremental budget & zero-base budget–different measures of dificits in budget–Revenue deficit, primary deficit and fiscal deficit; different types of deficit, measures to reduce different deficits, problems of budget deficit in India.	**Unit 6:** Public Budget **(Pages 143-169)**
Unit VII: Public Debt Differences between private debt and public debt; Sources of government borrowing; effects of public debt; Ricardian equivalence; burden of public debt; Domar's model management of public debt.	**Unit 7:** Public Debt **(Pages 171-193)**
Unit VIII: Fiscal Policy in a Closed Economy Instruments of fiscal policy: tax, borrowing and expenditure, anticyclical fiscal policy in a closed economy. Crowding-out effects of government expenditure, it criticisms.	**Unit 8:** Fiscal Policy in a Closed Economy **(Pages 195-208)**
Unit IX: Fiscal Policy in an Open Economy Relation between fiscal, monetary & exchange rate policies. Deficit spending and its effect on money stock, exchange rate, export, import and capital movement. Changes in tax rate and its effect on the movement of foreign capital.	**Unit 9:** Fiscal Policy in an Open Economy **(Pages 209-224)**
Unit X: Fiscal Federalism Principles of division of financial resources in a federation – horizontal and vertical imbalance – Finance Commission and Planning Commission in resources transfer from centre to the states in India.	**Unit 10:** Fiscal Federalism **(Pages 225-244)**

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INTRODUCTION

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Public finance studies the role of the government in the economy. It is the definitive branch of Economics which assesses the government revenue and government expenditure of the public authorities and the adjustment of one or the other to achieve desirable effects and avoid undesirable ones. Public finance is a subject which has the distinction of intimate interaction between theory and practice. As such it acquires a meaning and usefulness only in the context of institutional framework of the economy with reference to which it is being studied. The theoretical concepts and policy applications in public finance feed upon and grow out of each other. No single theoretical model can adequately fit in the framework of every economy since its institutional framework is a thing unique to itself. It is important, therefore, that the discussion of public finance should be in the context of a single economy.

Recent years have witnessed a heated debate on several theoretical and policy issues covering several segments of public finance, including the role of fiscal policy. Pleas are being made for a thorough restructuring of its various theoretical and policy premises and the framework within which these should be conducted. Exponential growth and transformation in global financial system and worldwide meltdown caused by it have fuelled rethinking on the role of fiscal policy with special focus on economic stability and growth—both in developed and developing countries. India, like the rest of the world, has also been deeply affected by these developments.

This book, *Public Finance*, is written in a self-instructional format and is divided into ten units. Each unit begins with an *Introduction* to the topic followed by an outline of the *Unit Objectives*. The content is then presented in a simple and easy-to-understand manner, and is interspersed with *Check Your Progress* questions to test the reader's understanding of the topic. A list of *Questions and Exercises* is also provided at the end of each unit, and includes short-answer as well as long-answer questions. The *Summary* and *Key Terms* section are useful tools for students and are meant for effective recapitulation of the text.

UNIT 1 RATIONALE FOR GOVERNMENT INTERVENTION

Structure

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1.0 INTRODUCTION

The basic nature of any economy lies in the scarcity of its productive resources in relation to its wants. Our wants are ever-increasing and recurring while availability of resources for satisfying them lags behind. An economy is constantly engaged in the solution of this eternal problem of scarcity. It, therefore, undertakes various activities whereby the available supply of resources is augmented, existing supplies are utilized more effectively, and some additional objectives like those of stability, employment, growth, and distributive equity are met with as much as possible.

The division of economic activities between public and the private sectors[1] should not be a haphazard one, but should be based upon sound theoretical principles, prevalent economic and socio political objectives of the society, and adjusted for constraints of the country's institutional framework.

- A *capitalist economy* is characterized by the institutions of private property and inheritance (including means of production). In it the main task of providing goods and services is assigned to the private sector in which decision-making by individual economic units is motivated by their economic rationality within the boundaries set by market mechanism. The owners of factors of production aim at maximizing the income which they can earn in alternative employments; the investors are guided by the perceived profitability of alternative investments; the consumers try to maximize their consumers' surplus, and so on. In this arrangement, the government has only a limited role to play.
- A *socialist economy*, on the other hand, is dominated by the State sector with minimal or no private property (particularly of non-labour variety). Here economic

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activities and decisions of the State are expected to be guided not by commercial profitability but by the totality of objectives of the society. Market mechanism is assigned, if at all, a very marginal role.

- In between these two extremes, we have the *mixed economy* where both private and public sectors are assigned significant roles though there are no exact prescribed proportions of the two. Lately, Public Private Partnership or PPP (that is, a system of joint ventures) model is gaining popularity in several countries.

In this unit, you will be acquainted with the role of government in economic activity and the characteristics of public goods.

1.1 UNIT OBJECTIVES

After going through this unit, you will be able to:

- Describe the role of government in economic activity
- Analyse State and economic planning and the drawbacks of State planning
- Explain externality as a characteristic of public goods
- Discuss the Tiebout–Oates model
- Assess the government intervention in economic activities

1.2 ROLE OF GOVERNMENT IN ECONOMIC ACTIVITY

Presence and active participation of State in economic activities of the country is justified on the reasoning that an unregulated ('free') market mechanism suffers from several failures of its own (termed 'market failures'[2]) and the State must step in to counteract them. At the same time, the State also suffers from some of its own in-built weaknesses which lead to 'government failures' implying that some fields of economic activities ought to be left for the non-State sector. For these reasons, every modern economy tries to achieve some kind of an acceptable balance between these two extremes and is, therefore, termed a 'mixed' economy.

If it is granted that there are certain economic activities which logically (such as, on grounds of efficiency, economies of scale, level of availability of the goods/services in question, etc.) should be in the hands of the State, then it follows that a society should have a State for not only performing those activities (functions) but also for such additional non-economic activities which go with them as also for performing those activities which need to be assigned to it in non-economic fields.

Although it is generally agreed there is a role for the government to redistribute income in favour of the poor, provide public goods and services, and deal with externalities, there is considerable disagreement over how far the government should go in these areas, and what additional areas the government should be responsible for. Some people feel that 'big government' is already a problem that government is doing too much. Others believe that the government sector of the economy is being starved and that government should be allowed to do more. What is the appropriate role for government is a basic question, and one that involves a great deal more than economics.

Conservative View

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On the one hand, conservatives believe that the government's role should be severely limited. They feel that economic and political freedom is likely to be undermined by excessive reliance on government. Moreover, they tend to question the government's ability to solve social and economic problems. They believe that faith in the government's power to solve these problems is unreasonable. They call for more and better information about what government can reasonably be expected to do and do well. They point to the slowness of the government bureaucracy, the difficulty in controlling huge government organizations, the problems political considerations can breed, and the difficulties in telling whether government programs are successful or not. On the basis of these considerations, they argue that the government's role should be carefully limited.

Liberal View

Conservatives tend to question the government's ability to solve important social and economic problems, but liberals tend to question the market's ability to solve these problems. They point to the important limitations of the ma et system, and they claim that the government can do a great deal to overcome these limitations. Government can regulate private economic activity. It can also provide goods and services that the private businesses produce too little of. Liberals tend to be less concerned than conservatives about the effects on personal freedom of greater governmental intervention in the economy. They point out that the price system also involves a form of coercion by awarding goods and services to those who can pay the price. In their view, people who are awarded only a small amount of goods and services by the market are forced into discomfort and malnutrition.

Musgrave and Musgrave's Views

Guided by the reasoning that it is the duty of the State to counteract market failures, Musgrave and Musgrave[3] describe a framework of economic activities which should legitimately be assigned to the State. These activities may be classified into three 'functions' or 'branches', namely, ***allocation function, distribution function*** and ***stabilization function.*** This recommendation is derived in recognition of the fact that an unregulated market mechanism fails to perform *efficiently enough* in these fields and this necessitates that the State should take over the responsibility of ensuring efficient performance of the economy in these fields. The fact that the efficiency criteria relating to these three fields are themselves wrapped in a veil of haziness is an additional issue which has engaged the attention of the thinkers and theoreticians with no final solution.

The stabilization branch aims at ensuring a high level of employment and price stability, the distribution branch aims at achieving an equitable distribution of income, and the allocation branch is to ensure that resources are allocated between alternative uses in accordance with socio-economic needs of the country and there is no wastage involved in their usage. Each of these functions throw up several detailed, inter-related and (often) intractable questions. For example, all these questions are intimately related to the administrative set up of the State, its policy framework, legal instruments at its command and their effective use by it. The State has to create, maintain and run an institutional framework for 'financing' its activities. This necessitates that it should have access to adequate financial resources (tax revenue, non-tax revenue, borrowings, grants, fines and fees and so on), and the like. There should also be an institution of a detailed periodical

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budgeting incorporating all aspects of receipts and disbursements of resources as also fiscal and other policy tools.

Assumption of various functions by the State implies that, in the process of their performance, it becomes a supplier of various goods/services entailing a host of issues and policy decisions on its part. The questions relating to 'merit goods', 'demerit goods', 'bads' (or Sin Goods), 'public goods', 'local public goods' and 'club goods' etc. belong to this genre.

Let us discuss the functions of allocation, distribution and stabilization in detail.

Allocation, Distribution and Stabilization

A significant outcome of an unregulated market mechanism is the inequalities of income and wealth which, with the institutions of private property and inheritance, widen with the passage of time. Furthermore, such income and wealth disparities not only spell a social and economic injustice, they also distort production and employment patterns.

Narrower inequalities of income and wealth, contribute towards economic stability. It is generally recognized that marginal propensity to consume falls as income rises. As a result during the expansionary phase of a trade cycle, consumption demand tends to lag behind and causes a check on further expansion of demand in the economy. Without such a check the upward movement of the trade cycle might develop into a disruptive inflation. Similarly, during a depression, consumption refuses to dip below a certain level and, as a result, the economy is provided a firm demand base. Furthermore, economic stability is helpful to economic growth because private investment is affected, amongst other things, by safety and expected rates of return. With economic stability and expectation thereof, the risk of loss is reduced and this has, therefore, a healthy effect on the investment climate.

Welfare considerations also favour an equitable distribution of income and wealth. The purpose of an economic policy should be to contribute towards maximizing aggregate social benefits. Though we cannot prove objectively that marginal utility of income falls as income increases, common sense supports this hypothesis. That being so, it follows that any movement towards equitable distribution of income and wealth would increase the aggregate satisfaction in the community. Lerner has shown that even if we do not know the extent to which marginal utility of income falls with a rise in income and even if we cannot have inter-personal comparisons of utility, still a shift towards equality would probably add to the aggregate satisfaction of the community.

Public expenditure policy may be formulated for improving distributive justice which special emphasis on components meant to help the poorer sections of the society. A number of welfare measures like free education, health, drinking water and other facilities can be accorded a high priority. Numerous social security schemes can be adopted whereby people are entitled to old-age pensions, unemployment relief, sickness allowance and so on. Articles of common consumption like food can be subsidised, and the production of those which are in short supply can be taken up in the public sector. Left to market mechanism, the supply of 'merit goods' is likely to be insufficient. Public expenditure, through direct purchases, public production or subsidies can ensure that their supply is augmented to the desired extent. Similarly public expenditure, through appropriate subsidies and other 'purchase and stores' policy can encourage labour-intensive techniques of production which reduce unemployment and improve income distribution.

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However, while proceeding with the programme of bringing about income and wealth equalities, certain aspects of possible interaction between distributive justice and other dimensions of the economy must be kept in mind. To begin with, poorer people may not be able to enjoy fully the additional income because of ignorance, etc. But this argument is applicable only if suddenly large amounts of income start flowing to the poorer sections of the community. In an underdeveloped country (to whose poor people this argument could be directed), this argument does not apply because it normally lacks adequate funds to significantly improve the lot of everyone. Through income redistribution, the poor masses can only feel a marginal relief. Even in the case of adequate funds, the desirability of reducing inequalities would not be disproved. It would only point towards the need for going slow, so that the poorer sections also get accustomed to higher standards of living.

The impact of redistribution on the economy's will and capacity to work, save and invest is inconclusive. In a poor country, where the need to reduce inequalities is the greatest, saving potential is only with the higher income groups. With a big shift towards equalities, such a saving potential is substantially reduced especially because the poorer sections of the community are bound to consume away a major portion of their newly acquired incomes. The objective of economic equality, therefore, comes into conflict with that of economic growth. In other words, both will and capacity to save on the part of the members of the society are likely to suffer when a shift towards income and wealth equalities is made. An underdeveloped country, therefore, is faced with a difficult choice.

The distributive effects of public expenditure must be viewed in the context of its method of financing. For example, if it is financed through additional tax revenue and the tax system of the country is regressive, it would militate against the distributive effects of public expenditure. Similarly, if public expenditure is financed through deficit financing, or through such borrowings as are inflationary in character, inequalities would widen. However, deficit financing to a limited extent need not generate inflationary pressures. Similarly, public borrowings out of genuine savings of the economy are expected to be only mildly inflationary. While the long-term solution of its economic difficulties lies only in economic growth, the problems of income distribution also cannot be postponed indefinitely. A via media, therefore, has to be worked out wherein both these objectives are pursued concurrently in a balanced manner. And to the extent the hitherto un-exploited resources can be tapped, or if foreign aid is available, the task of pursuing both the goals (of equitable distribution and growth) becomes less difficult.

It is a well-known fact that the market forces by themselves leave much to be desired in the field of economic results. The more advanced and free the market mechanism, the more prone is the economy to fluctuations in income, employment, and prices. It is for this reason that with the development of capitalism, free enterprise economies came to experience ever stronger trade cycles. Accordingly, the need to use some effective anti-cyclical measures gained universal acceptance—more so since the havoc caused by the Great Depression of the 1930's. Keynesian diagnosis of the basic cause of the ills of a developed market economy was the deficiency of effective demand which was caused by a low marginal propensity to consume coupled with a low marginal efficiency of investment. He therefore advocated a continuous injection of additional purchasing power in the market through stimulation of investment and consumption activities and through direct public investment. This direct investment was a part of the

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public expenditure and was meant to add to the effective demand in the market and generate a high-value multiplier by distributing income to those sections of the population which had a high marginal propensity to consume. It was also claimed that the addition to demand by such sections would stimulate investment activity and further add to demand flows. Keynesian prescription was basically directed towards curing a state of depression but the logic of the argument can also be extended to that of curing an inflationary situation. To put it differently, Keynesian policy prescription can be converted into a scheme of compensatory finance that is, counterbalancing the deficiency or excess of demand by the private sector of the economy. During a depression the State was expected to increase total spending in the economy. And this could be done, if need be, through deficit financing. Public borrowings, to the extent they came out of savings of the people, would help in the stimulation of overall demand when they were spent. This would be more so when the savings of the people were not finding an investment outlet, due to an all-round deficiency of demand.

Similarly, if deficit financing was being met through creation of additional money, the stimulating effect of additional public expenditure would again be felt. In either case there would be a net increase in total expenditure and demand flows in the economy. During a boom, on the other hand, the need is to curb excess demand. This may be done through reducing public expenditure while maintaining the same amount of taxation and/or borrowings. Here taxation would drain away some of the purchasing power from the hands of the people and public borrowings would in the same way cut into market investment (since market savings are not likely to go uninvested on account of good investment opportunities). Thus a curtailing of public expenditure would restrain the inflationary pressures.

It must be remembered that the use of public expenditure as an anticyclical weapon implies the existence of a well-knit and sensitive market mechanism where, through the free working of the input-output relationships between different industries, any change starting in one industry spreads to the rest of the economy. It is necessary that such spreading out of effects should be even enough and without undue time lags. And if a depression is to be cured through stepping up of demand, then there must be adequate unutilized excess capacity in the economy. If these assumptions are satisfied, then the authorities have to concern themselves only with the aggregate demand and not with the particular directions in which it is flowing, since through the interaction between demand and supply flows an automatic adjustment takes place. In a market, where there are technical and other rigidities, the effect created in one sector may not evenly spread to the others. It must be noted that such rigidities are not absent even in developed countries. As a result, under such circumstances, public expenditure no longer remains a simple and easy tool.

The authorities have to regulate not only the total magnitude of demand in the economy, they have also to ensure that the subdivisions of the demand flows match the supply flows. Public expenditure as an anti-cyclical tool will have to be devised in a detailed manner. If this care is not taken, and if the authorities use public expenditure just to stimulate demand in general, then such a stimulating effect will be felt only for certain items while many other industries and areas would remain unaffected, or would be affected only partially. Actually, it is quite possible that while some sectors of the economy continue suffering from deficiency of demand, some others might be groaning under inflationary pressures on account of too much demand. Similarly, it is also possible that when the government reduces its expenditure to curtail over-all demand, the effect is

more or less concentrated in the industries for which the government reduces the expenditure directly.

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As is well-known, an underdeveloped country suffers from far greater rigidities than do the developed countries. Shortages of particular inputs are common. There are gaps in the form of absence of certain industries or adequate productive capacity therein. Various kinds of institutional and legal restrictions prevent a proper and quick market response on the part of different sectors of the economy; and it may be the case even with those sectors to which public expenditure is applied directly. As a result the problem of bringing about economic stability is far more complex in this case.

Another factor which contributes to the complexity of the problem is the fact that an underdeveloped economy is having, generally speaking, inelastic demand for essential maintenance imports while demand for its exports is quite weak. The result is that if the world prices for its exports fall, it is forced to distress sales; while if its import prices increase, its cost price level is pushed up. Ordinarily an underdeveloped country does not have much defence against this type of instability. Public expenditure cannot remedy the situation to a sufficient degree. Normally, through export and import duties, it should be possible to bring about desired changes in exports and imports; but under unfavourable conditions, this is generally not effective enough. And for some countries, recurring balance of payments problems add to their difficulties.

We may say that in underdeveloped countries, public expenditure as a general weapon against economic instability has only a limited use; a very detailed programme has to be worked out to meet the specific problems on hand and even then public expenditure alone may not be adequate to overcome the hurdles. A careful and judicious combination of the import and export subsidies, duties and other steps has to be used for achieving effective results.

1.2.1 Market Failures

It may be recalled that the term market mechanism represents an ongoing interaction between the forces of demand, supply and prices (determination and variation) of goods and services at both individual and aggregative levels. Accordingly, when the outcome of a primarily unregulated market mechanism deviates from generally accepted socio-economic criteria, it is termed a case of 'market failure'. Such deviations may be infrequent and small enough so as to be assessed as 'normal' occurrences and 'economic noises'. Alternatively, such failures may be perceived as a matter of major concern and thus calling for State intervention to the extent required (in extreme cases, even replacing market mechanism with direct State control).

It is widely asserted that distribution of income and wealth (and therefore capacity to spend) is a primary determinant of demand flows, and through demand flows, a leading determinant of other outcomes of market mechanism. Those who have the paying capacity decide the types of goods and services they want to buy and pay for. The producers and investors allocate productive resources with the objective of earning profit income and, therefore, investment and production patterns of the economy also get adjusted in line with the demand pattern. If therefore, the production pattern in the economy does not conform to the 'needs' of the society, the solution lies in changing the distribution pattern of income and wealth. It would, therefore, be instructive to familiarize ourselves with the basic mechanism of income and wealth distribution in a market economy recalling that the institutions of private property, inheritance and financial system are integral parts of such an economy.

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Earnings of an individual (family) in a market economy are determined by (i) the quantum of productive resources (in whatever form) supplied (sold, hired out, etc.) by this entity to the market, and (ii) the respective rates (prices) at which they are paid for. It is self-explanatory that, even in the absence of the institutions of private property and inheritance, incomes earned by different individuals are bound to be unequal in such an arrangement. However, these inequalities widen with the presence of the institutions of private property and inheritance and keep widening over time since recipients of higher incomes have greater capacity to save and add to their non-labour resources.

Persistent and widening income inequalities leads us to the concept of 'distributive justice' or 'distributive equality'. It is a highly involved concept and does not yield any universally acceptable and precise meaning. Some people may assert that distributive equality should mean equality distribution of income and wealth of the economy between all members (or households) of the society. Others may assert that this distribution should be in conformity with 'comparative needs' of the recipients. However, as yet, thinkers have not been able to find out any objective method of assessing these comparative needs. Still another view is that this distribution need not be equal in any absolute sense or in the sense of comparative needs of the recipients. It should only be 'equitable'. But the concept of equitability also raises equally difficult questions and is beyond our existing capacity to quantify it.

Unregulated market mechanism also generates business cycles of unpredictable intensity, timing and duration. Interdependence and integration of world economies impart additional strength to these upheavals. It has not been possible to identify any immutable basic causes of these cycles enabling the authorities to take preventive action. However, over the years, the authorities have been able to invent a wide spectrum of anti-cyclical policy weapons which they use to the best of their ability. Musgrave and Musgrave emphasize that it is one of the primary functions of the State to ensure economic stability incorporating a high level of employment and price stability. However, modern economies are experiencing an ongoing transformation making this task of the State ever more difficult. There was a time when majority of world economies were facing a recession/ depression and the remedy suggested was pumping in of additional purchasing power in the hands of the public and additional spending by the State itself. Over time, this gave rise to conditions of persistent inflation requiring a different set of policy measures. Currently, the widely prevalent instability is manifesting itself in the form of high levels of unemployment and prices coupled with a persistent deficiency of demand.

An unregulated market is also subject to a host of unpredictable disturbances originating in one economy or other, in the form of some natural calamity, some political disturbance, some technical revolution, etc.

In addition, market mechanism also suffers from several features embedded in the market structure itself which enable decision makers in the private sector to misuse the market structure such as through asymmetrical information, use of marketing and sales gimmicks, creation and misuse of financial empires, and so on.

Market failures also manifest themselves in inadequate availability of merit goods, and production and availability of 'bads', slow rates of growth of low income economies, and a host of other problems like inadequate investment in infrastructural facilities.

Market failures provide a theoretical basis for a multi-dimensional corrective role of the State.

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1.2.2 Pure Public Goods

It can be contended that so far as providing pure public goods is concerned, we should entrust the public sector with this job. If the task is left in the hands of private sector, then the system is likely to suffer from inefficiency on account of the following reasons.

- Market mechanism can supply only a priced good. This would automatically enforce the principle of exclusion to its use. As a result either the good would not be supplied at all, or the suppliers would try to deprive a section of the society from its use. Such an enforcing of the principle of exclusion will either be impossible or will be very costly to implement.
- Non-marketable external effects of public goods cannot be priced. And this creates a divergence between private and social production costs. The supply of goods, therefore, deviates from their optimum level.
- The market mechanism fails in the case of pure public goods since the users cannot be forced to reveal their demand preferences. The suppliers are faced with the problem of *free riders*.

Quasi Public Goods

As regards the quasi-public (that is, quasi private) goods, it appears that the role of the State should be limited to those goods which have more of publicness in them while predominantly 'private' ones should be left to the private sector and the market mechanism. However, the precise field of the State activity has to be decided not only on the basis of efficiency of the public sector but also on the basis of political and social ideology of the State.

Merit Goods

Merit goods are those goods, the consumption of which not only benefits their consumers but also non-consumers. Examples of merit goods include education, health services, and the like. Left to market mechanism, the availability of such goods remains inadequate as compared with their need because of an inherent deficiency of effective demand for them (that is, insufficient purchasing power in the hands of their potential consumers). On account of their overriding importance, provision of such goods helps the economy in attaining a high level of efficiency and helps in achieving basic objectives of the society. It follows that the State should itself take up the supply of merit goods or it should at least supplement their availability. Alternatively, it may choose to subsidize their production or consumption.

1.2.3 Characteristics of Pure Public Goods

The characteristics of pure public goods are as follows:

1. **Non-excludability:** The benefits derived from pure public goods cannot be confined solely to those who have paid for it. Indeed non-payers can enjoy the benefits of consumption at no financial cost – economists call this the 'free-rider' problem. With private goods, consumption ultimately depends on the ability to pay.
2. **Non-rival consumption:** Consumption by one consumer does not restrict consumption by other consumers – in other words the marginal cost of supplying a public good to an extra person is zero. If it is supplied to one person, it is available to all.

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3. **Non-rejectable:** The collective supply of a public good for all means that it cannot be rejected by people, a good example is a nuclear defence system or flood defence projects.

1.2.4 Infrastructure

The role of State in providing infrastructure (social overheads) was recognized even in early economic literature. The arguments in favour of this dictum were the commercial non-viability of infrastructural facilities and inadequate resource availability with the private sector. These days, the argument of commercial non-viability is being supplemented by that of the contribution which infrastructure makes to the productive potential of an economy. Theoretician's show that growth of an economy is a sum total of contributions made by productive resources, technology, institutional framework and infrastructural facilities. The contribution of infrastructural facilities is termed total factor productivity (TFP). The provision of such facilities is considered a primary responsibility of the State, particularly because its spill over effects are non-marketable.

Demand for State Services

Musgrave and Musgrave point out that an increase in per capita income generates additional demand for goods (services) supplied by *both* the State and the private sectors. However, the extent to which State sector should grow depends upon several critical factors including prevalent perceptions and philosophy, as also the administrative and fiscal capabilities of the authorities.

1.3 EXTERNALITIES

Pure public goods are characterized by the existence of externalities, that is, economic effects which flow from their production or use to third parties or economic units. Such economic effects may also be called ***spill-over effects, neighbourhood effects or third-party effects***. They arise on account of interdependence of economic units via input/output relationships and may be in the form of gains or losses. An externality may be pecuniary (that is, directly monetary) or technological. An externality affects the prices in the economy which in turn transmit their effects to production and consumption decisions of other economic units. This causes a divergence between the internal (or private) and social marginal costs (or benefits) of the good in question. Thus, for example, pollution caused by factories, power houses, railways, transport vehicles etc. is a cost to the society but not to the individual undertakings. Similarly, beneficial externalities of social overheads like roads etc. cause a divergence between private and social marginal benefits.

These externalities are of two types:[4]

(i) Market external (or marketable external) effects

(ii) Non market external (or non-marketable external) effects

In the case of *non-market external effects,* individual economic units cannot be identified and compensated for loss, nor can they be identified and charged for economic gains. In contrast, in the case of market-external effects, the losers (beneficiaries) can be identified and compensated (charged) for the same.

By implication, provision of public goods with non-market external effects should be preferably in the hands of the public authorities since they can provide them irrespective of their commercial profitability. In contrast, pure public goods with market external

Check Your Progress

1. How are the economic activities categorized by Musgrave and Musgrave be assigned to the State?
2. What is a market failure?
3. What creates a divergence between private and social production costs?

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effects may be left in the hands of the private sector (though even here their characteristic of non-excludability demands that they should be in the hands of the public sector only).

A pure private good is not supposed to have any externalities. In its case, there is no difference between private and social marginal costs of supply. And therefore its market price represents its social supply cost also. By implication, even in the hands of private sector, its supply would be at the socially optimum level. Ordinarily, therefore, the provision of pure private goods should be entrusted to the private sector. But on account of various reasons this may not be adhered to in every case. The government might decide to step in where **merit wants** are concerned or for other relevant considerations like the cost conditions (discussed below), resource availability, social and political philosophy, and so on.

Marginal Cost

A likely characteristic of a pure public good is that its marginal cost is zero or close to zero. It means that an additional member of the society can be benefited by its use without appreciably adding to its total cost. To put it differently, the use of a pure public good by one more member of the society does not reduce its availability to the others. A good example of it is the tuning in of your radio set. Still another example is that of a bridge, over which an additional vehicle may pass without any additional cost to the society. Note, however, that mostly this principle applies, in reality, only to a limited extent. We cannot keep adding to the number of vehicles that may use the same bridge; we cannot have the same defence budget if our population keeps increasing, and so on. Also it may be added that a large part of the society may not be able to enjoy the benefits of a public good without adding to the cost of its supply. Similarly, the provision of a public good may be increased or decreased for budgetary reasons or due to some extraneous factors. Pure public goods which possess this characteristic have a strong case for inclusion in the public sector since public goods are indivisible also. In the case of private goods, on the other hand, the argument is basically in favour of large scale production for which either the society should agree to a monopolistic type of private enterprise or should go in for public sector enterprises.

Decreasing Average Cost

Another likely characteristic of a pure public good is its decreasing average cost. Being lumpy, it would be subject to the economies of scale. If the public good is provided in small units, then the average cost is likely to be much more. For example, the average cost of operating a sewerage system is much smaller if it serves a wide area than when it serves only a portion of the city. When it comes to the choice between public and private sectors for the provision of goods possessing this characteristic, considerations similar to the ones mentioned above in the case of marginal cost characteristic apply.

Impure Public Goods

It would be noticed that it is highly difficult to come across goods which fully satisfy all the characteristics of pure public goods. Similarly, it is equally difficult to come across pure private goods. In general, most goods possess a mixture of both publicness and privateness. The division between the two types is mostly one of degree and not of kind. Such goods which are neither pure public goods nor pure private goods are called ***impure public goods (also called quasi-public goods or quasi-private goods)***. If the elements of publicness are predominant in the mixture of characteristics of a good, then it may be termed a public good; and in the opposite case, a private good.

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Local Public Goods

Over time, the subject matter of public goods gained in depth coverage. Additional issues associated with their nature and relevance were identified for policy making. Further, impetus was imparted to this subject when issues like the geographical coverage of a public good, its provision in a country having two or more tiers/layers of government, determination of public preferences and their aggregation for it, etc. gained prominence.

Tiebout–Oates Model

Paul A. Samuelson had highlighted some problems relating to a public good, such as the level of government that should provide it, quantification and aggregation of the preferences of its users, financing its provision and the like. Charles Mills Tiebout probed these questions[5] and asserted that, under some assumptions, these typical problems could be satisfactorily solved in the case of a sub-category of public goods provided by local/ municipal authorities. He termed this sub-category of public goods Local Public Goods. Tiebout's is a highly abstract model based upon strong and unrealistic assumptions and is variously known as the ***Tiebout Model, Tiebout Hypothesis, Tiebout Sorting and Tiebout Migration***. In recognition of the contribution made by Wallace E. Oates[6] to this line of reasoning, it is also referred to as ***Tiebout–Oates Model***.

Tiebout maintains that there is a sub-category of public goods, the provision of which is restricted to people living in (or visiting) a specific geographical area falling within the territorial jurisdiction of a municipal/local body. These goods, therefore, continue to be non-rivalrous, but acquire a degree of excludability. Those who do not reside in (or cannot visit) the specified localities, are automatically denied access to the services provided by it. Every person living in (or visiting) this area is entitled to use these public goods (such as parks, streets, scavenging, street lighting, and so on) irrespective of whether others are also using them or not. At the same time, every such person can be subjected to compulsory contribution to the financing of their provision. This solves the problem of free riders by converting the residents of that area into '***compulsory riders'***. It means that the residents have to 'consume' those public services and pay for them the prescribed user charges. No resident is given the option of selecting the municipal services to be consumed by him or the 'user charges' to be paid by him. The municipal body does not alter the basket of services it is providing in response to the preferences of the residents. If some residents disagree with this arrangement, they can migrate to some other municipal area where the provision of municipal services and user charges are acceptable to them. This method of showing preference for a specific set of local goods and willingness to pay for them by migration between municipal areas is termed 'voting with the feet'. Inter-municipal migration continues till the services provided by municipal bodies and charges for them synchronize with the preferences of their consumers.

It may be added here that Samuelson had pointed out that several public goods are only partially non-rivalrous. They are prone to congestion (or over-crowding). Their 'excessive' use by some may reduce their availability to others. This is particularly true of several public goods provided by local governments, such as schools, parks and fire fighting facilities. Their increased use by some leaves less of them for others. A fall out of this phenomenon is that it becomes generally impossible to provide these goods at local level in optimum quantities unless the preferences of users are known and aggregated. In other words, the problem is that the volume of individual services provided by authorities may deviate from the preferences of their users. Tiebout's model provides a theoretical solution to this problem in the form of migration of users of these services.

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In his model, the users reveal their preferences by migrating between municipal areas. This process of migration continues till there is complete matching and the above said problems get solved.

Tiebout model is based upon some strong assumptions including the following.

- Individuals possess perfect information and they are free to move from one municipal area to the other
- Enough areas and communities to choose from
- Problems relating to migration (employment, earning, quality of living associated with some areas, language, culture, etc.) do not come in the way of actual migration
- Migration is costless and without any disruption
- Each municipal area has a set of services which are not revised over time.
- Quality of public services is same everywhere
- Communities do not suffer from negatives like poor law and order, or undesirable habitants
- Individuals must consume all the goods (both public and private) at the same location, and there are no spill-over effects from one community to the other
- Model ignores the availability and consumption of national level public goods
- Assumes that the extent, quality and financing of local public goods are not affected by changing numbers of their consumers.

As stated above, these are highly unrealistic assumptions. A growing economy and society, with changing urbanization and inter-country roads, communication, rail and other facilities and infrastructure, etc. is abound to change the scenario over time. The model does not take into account these changes. It is set within the framework of a static economy. It loses relevance in a country like India where every locality is not served by municipal bodies and quality and type of services provided by municipalities widely differ from each other. In several cases, even a large number of basic amenities are not provided. And in any case, public expenditure in India suffers from a high degree of inefficiency. The local bodies themselves are starved of funds and their grants are inadequate, and uncertain.

1.3.1 How Externalities Cause Market Failure

When externalities in production and consumption prevail and as a result divergence is caused between private and social costs and benefits, the economy guided by the market prices alone, even in the presence of perfect competition, will fail to achieve optimum allocation of resources (or, in other words, maximum social welfare). When external economies (beneficial externalities) of production occur private marginal cost will be greater than the social marginal cost and when external diseconomies (detrimental externalities) in production are present, private marginal cost will be lower than social marginal cost.

Under these circumstances, therefore, a firm which creates external benefits for others will not produce *its product* to the extent social interest requires. This is because equating price with the private marginal cost, which is higher than the social marginal cost, will result in *under production of the product.* Thus in this case of the existence of *external economies in production,* output product determined on the basis of private marginal cost will be less than the socially optimal lavel of output. This is illustrated in Figure 1.1 where *SS* represents the supply curve for the product of the industry which

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has been obtained by summing up the private marginal cost curves of firms, Due to the existence of external economies (beneficial externalities), social marginal cost will be smaller than the private marginal costs. Therefore, the supply curve S′*S*′ (dotted) of the product reflecting social costs will be lower than the supply curve *SS* based on private marginal costs. The supply curve reflecting social cost is lower because it takes into account external economies generated by the production in the industry, while private cost does not take into account these external economies. It will be seen from the Figure 1.2 that the given demand curve and the supply curve *SS*, based upon the private cost of production, intersect at point *E* and thus determine *OQ* as the actual amount of the product produced. But the socially optimum output is *OM* at which the supply curve *S*′*S*′ reflecting social cost intersects the given demand curve. It is thus evident that the product is being produced in smaller quantity than the socially optimum output *OM*. Thus, *the existence of external economies (beneficial externalities) results in under-production and loss of social welfare equal to the area EKT.* Thus this represents the case of market failure.

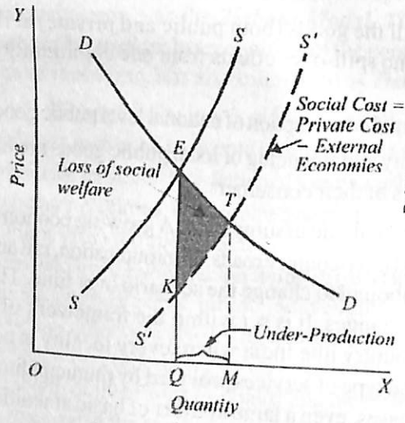


Fig. 1.1 Under-Production in Case of External Economies (i.e., Beneficial Externalities)

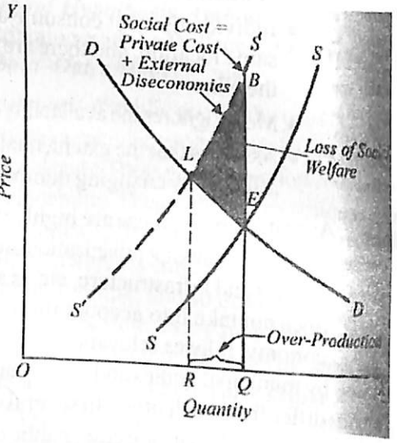


Fig. 1.2 Over-Production in Case of External Diseconomies (i.e., Detrimental Externalities)

On the other hand, when there exist external diseconomies in production, private marginal cost will be lower than the social marginal cost, since the former will not take into account costs or harms imposed on others. Therefore, *when external diseconomies are present, equating price with marginal cost will result in over-production of the product,* that is, more than socially optimum output will be produced. This case of market failure is illustrated in Figure 1.2. It will be seen that the supply curve *SS* based on private marginal costs intersects the demand curve at point *E* and thus determines *OQ* amount of output. Supply *S*′ *S*′ (dotted) which takes into account external diseconomies and therefore reflects social cost lies at a higher level and intersects the demand curve at point *L* and therefore socially optimum output will be *OR*. Thus, it follows *when external diseconomies (detrimental externalities) are present, equating price with private marginal cost will result in over-production of the product, that is, more than socially optimum output will be produced and will cause a loss of social welfare equal to the area ELB.*

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When there are external economies in consumption, then the demand curve for the product determined on the basis of private marginal utility will be lower than that based on social marginal utility, because the former will fail to reflect the external economies in consumption being generated. Therefore, in this case too, output determined on the basis of private marginal utility and demand will result in lower output than the socially optimum level. On the other hand, when there exist external diseconomies in consumption the private marginal utility will be higher than the social marginal utility, since the former will not take into account the external diseconomies. As a result, when external diseconomies in consumption are present, the output determined on the basis of private marginal utility (benefit) will be more than the socially optimum level.

Government Intervention and Externalities

Where there are a good amount of external benefits or external costs, the Government intervenes to take appropriate measures to promote social well-being. The imposition of taxes and provision of subsidies are the two important measures that Government can take to tackle the problems created by the presence of externalities. When there is excess production by firms due to the *creation of detrimental externalities* by their productive activity the Government can impose per unit tax so that private marginal cost (*MPC*) curve inclusive of per unit tax shifts above to the level of social marginal cost (*SMC*) so that equilibrium of the firms is at optimum level of output. Consider Figure 1.2 with detrimental external effects the industry produces *OQ* output at which supply curve *SS* based on private marginal costs of the firms cuts demand curve *DD* at point *E* and is producing *RQ* more than the optimum level. If the Government imposes per unit tax equal to *EB,* private marginal cost (*PMC*) curves of the firm shown by the supply curve *SS* with shift up and coincide with social marginal cost curve (*SMC*) shown by the supply curve *S*′*S*′ (dotted). With this tax per unit, the industry will be in equilibrium at point *L* where *S*′*S*′ curve cuts the demand curve *DD* of the product and produces optimum output *OR*. In this way taxation solves the problem of over-production in case of detrimental externalities.

Provision of Subsidies

On the other hand, to promote social well-being the Government provides subsidies to those activities which are believed to generate external benefits. Thus education is subsidised by the Government not only because it creates equal opportunities for all people of a country but also because it generates beneficial externalities. For example, it has been found that educated people commit less crimes, an external benefit so that the Government has to spend less on prevention of crime. Besides, the academic research which is a by-product of the education system, benefits all people when it discovers useful things for them and also makes significant contribution to economic growth. If education is provided by profit-making enterprises, its private marginal cost will be greater than social marginal cost and it will be produced less than the optimal level as shown in Figure 1.1 where without any subsidy *OQ* level of output is produced which is less than the optimal level *OM*. If Government provides subsidy equal to *EK* per unit the supply curve based on private marginal cost curves will shift below to the level of *S*′*S*′ (dotted) so that the industry now produces optimal output *OM* at which supply curve based on *SMCs* cuts demand curve *DD*. Thus, with provision of subsidies the Government can correct market failure caused by beneficial externalities.

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1.3.2 Market Imperfection

Market imperfections theory is a trade theory that develops from international markets where perfect competition does not occur. It means that at least one of the norms for perfect competition is violated and out of this arises an imperfect market. We all know that a perfect market is not really achievable and possible. The basic assumptions for a perfect market are:

- Buyers and sellers are both price takers
- Companies sell almost indistinguishable products
- Buyers and sellers have flawless information
- Several companies own a small market share
- Entry or exit barriers do not exist.

Common situations like monopolies, monopolistic competition, and oligopolies have a very great effect on disruption of perfect competition.

A market where information is not immediately revealed to all participants and where the matching of buyers and sellers is slow is an imperfect market. Generally it is any market that does not obey strictly to perfect information flow and deliver instantly available buyers and sellers.

Practically, the imperfect market is the only kind that really survives. Even in the United States, the most advanced financial market in the world, there are still several cases of price corruption, inappropriately dispersed information and other market inefficiencies.

Market imperfection is a condition in which the distribution of goods and services is not effective. Market imperfections are often related with time-inconsistent preferences, information irregularities, non-competitive markets, principal–agent problems, externalities, self-regulatory organizations, governments or supra-national institutions, etc.

Imperfect information is a state in which the parties to a transaction have dissimilar information, as when the vendor of a used car has additional information about its quality than the buyer. Sellers mostly have enhanced information about a good than buyers because they are more acquainted with it.

In a free initiative economy demand and supply forces control the values of various goods and services. The reward of four factors of production is also calculated with reference to demand and supply. The distribution of resources is optimum and it recovers the production of numerous sectors. If any authority obstructs in the working of free initiative economy it diminishes the rate of development.

Causes of Market Imperfection

Let us discuss the different causes of market imperfection.

1. Immovability of factors of production

In the less developed countries elements of production are not ready to transfer from one place to another and from one sector to another for greater return.

2. Firm price system

In the less developed countries rate of profit, rate of investment and rate of employment is very less due to the tough price system. If the prices are permitted to fluctuate according

to the demand and supply it will raise the rate of profit and rate of investment in the country of competition among the buyers and sellers.

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3. Firm social structure

Social structure is also generating difficulties in the way of market perfection in the less developed countries. Not only the producer but the consumer also suffers a loss because of competition among the buyers and sellers.

4. Role of middleman

Middleman enjoys extreme earnings in the developing countries. Producers are unable to accomplish the reasonable values of their production. It makes the market imperfect.

5. Unawareness about market condition

In the developing countries buyers and sellers don't know the market conditions. Due to this the same price cannot prevail in the market.

6. Lack of specialization

There is a deficiency of specialization in the production process. The countries which are at the stage of developing are unable to produce the commodities on huge scale. Cost of production is also more and due to this demand is less. It makes the market imperfect.

7. Attitude of the people

In the less developed countries people usually procure the commodities from the closest shop instead of trying the price on various shops. Sometimes consumer likes to purchase the goods from their contacts who charge high prices which ultimately makes the market imperfect.

8. Monopolies

Producers normally create monopolies to receive supreme profit. These monopolies are the main hindrance in the way of perfect market.

9. Hoarding

Sometimes businessman creates scarcity of goods in the market by hoarding the production. Due to this, the market becomes imperfect.

10. Unequal distribution of wealth

In most of developing countries dissemination of wealth is not equal. So it is also the main cause of market imperfection.

1.3.3 Government Intervention

Before the advent of modern capitalism, the State used to intervene in economic activities of the society to a substantial extent. Such a system did not attract much criticism because the society did not know the advantages of market mechanism with which to compare the advantages of State intervention. But with development of capitalism, the disadvantages of controls, especially those resulting in productive inefficiency, became apparent. Accordingly as a reaction to this, a thesis developed that the State should

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govern the least. In other words, to the extent possible, the provision of the goods should be left in the hands of the market guided private sector.

Adam Smith was the apostle of this new thesis. He provided theoretical underpinnings for the *laissez faire* philosophy and was a great advocate of unregulated market mechanism. Adam Smith believed that the market was capable of generating efficient signals for the economic units. There was an invisible hand which guided every economic unit in its decisions. However, even he recognized that there were certain goods the provision of which could not be left to the market forces. The market would not provide them either due to the lack of commercial profitability or some other reasons. But all the same, the economy needed these goods for ensuring its own productive efficiency. These included social overheads, defence, and maintenance of law and order. Of course, the maintenance of the State itself was also to be there.

In due course of time, however, it was realized that a significant proportion of social wants satisfied the criteria of merit wants (to use Musgrave's terminology). The State, it came to be believed, was for the whole society and not for any particular section. As a result, the State was expected to work for its maximum advantage. Under influence of this philosophy, the State expanded its activities in various directions. The concept of a Welfare State gained roots and now almost every State swears by it. Welfare activities form a substantial portion of what every State does these days. The States are seized of the problems of economic stability, economic growth, employment, inflation, balance of payments, regional imbalances, and so on. Provision of more and more social and economic services is being taken over by the State, including education, social security and administration of labour welfare measures etc. In some countries, this trend had been reinforced by nationalization and regulation of existing industries. The precise scope of activities undertaken by any individual State, of course, depends upon its political and social ideology, resource availability, and the administrative and other facilities at its command.

This has led to a stage where a harmonious co-existence of State and private sectors has received a universal acceptability. In this scheme of things, the State is expected to pursue a policy of maximizing aggregate social welfare function and to regulate and monitor the working of the economy to the extent needed. It is also expected to overcome its own weaknesses and, in particular uproot vested interests. Similarly, the private sector is expected to abide by the policy framework of the State and, like the State, avoid DUP.

Check Your Progress

4. What are government failures?
5. What are pure public goods characterized by?
6. What are the types of externalities?
7. What problems related to a public good were highlighted by Paul Samuelson?

1.4 SUMMARY

In this unit, you have learnt that:

- Presence and active participation of State in economic activities of the country is justified on the reasoning that an unregulated ('free') market mechanism suffers from several failures of its own (termed 'market failures') and the State must step in to counteract them.
- Musgrave and Musgrave describe a framework of economic activities which should legitimately be assigned to the State. Briefly stated, these activities may be classified into three 'functions' or 'branches', namely, allocation function, distribution function and stabilization function.

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- The stabilization branch aims at ensuring a high level of employment and price stability, the distribution branch aims at achieving an equitable distribution of income, and the allocation branch is to ensure that resources are allocated between alternative uses in accordance with socio-economic needs of the country and there is no wastage involved in their usage.
- When the outcome of a primarily unregulated market mechanism deviates from generally accepted socio-economic criteria, it is termed a case of 'market failure'.
- Earnings of an individual (family) in a market economy are determined by (a) the quantum of productive resources (in whatever form) supplied (sold, hired out, etc.) by this entity to the market and (b) the respective rates (prices) at which they are paid for.
- Unregulated market mechanism also generates business cycles of unpredictable intensity, timing and duration. Interdependence and integration of world economies impart additional strength to these upheavals.
- Market failures also manifest themselves in inadequate availability of merit goods, and production and availability of 'bads', slow rate of growth of low income economies, and a host of other problems like inadequate investment in infrastructural facilities.
- It can be contended that so far as providing pure public goods is concerned, we should entrust the public sector with this job. If the task is left in the hands of private sector, then the system is likely to suffer from inefficiency.
- Merit goods are those goods the consumption of which not only benefits their consumers but also non-consumers. Examples of merit goods include education, health services, and the like.
- The role of State in providing infrastructure (social overheads) was recognized even in early economic literature. The arguments in favour of this dictum were the commercial non-viability of infrastructural facilities and inadequate resource availability with the private sector.
- Economic planning by government refers to a selection and execution of economic activities by it. The entire process may involve complete or partial bypassing of market mechanism. In the latter case, it involves evoking appropriate response from the economic entities in the private sector.
- Indicative planning is a form of 'mixed economy' with the difference that it contains a well thought out policy framework for monitoring and regulating the private sector. In a non-planned mixed economy, both State and private sectors play their assigned roles.
- Justification for State planning lies in its ability to avoid market failures. In the extreme case, where market mechanism is completely frozen (rendered totally inoperative), the economy no longer experiences instability, unemployment, price inflation/deflation, and so on.
- State planning harbours several inherent weaknesses which are much stronger than the 'government failures' in a mixed economy. The fact that a modern economy is a highly complex one, demands an extremely elaborate, efficient, and well-coordinated administrative set up capable of flawless functioning.

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- Pure public goods are characterized by the existence of externalities, that is, economic effects which flow from their production or use to third parties or economic units.
- Externalities are of two types:
  (i) Market external (or marketable external) effects
  (ii) Non market external (or non-marketable external) effects
- A likely characteristic of a pure public good is that its marginal cost is zero or close to zero. It means that an additional member of the society can be benefited by its use without appreciably adding to its total cost.
- Goods which are neither pure public goods nor pure private goods are called impure public goods (also called quasi-public goods or quasi-private goods).
- Paul A. Samuelson had highlighted some problems relating to a public good, such as the level of government that should provide it, quantification and aggregation of the preferences of its users, financing its provision and the like.
- Tiebout maintains that there is a sub-category of public goods the provision of which is restricted to people living in (or visiting) a specific geographical area falling within the territorial jurisdiction of a municipal/local body.
- The State suffers from several weaknesses (infirmities) of its own, more so in a developing country like India. These infirmities are known as Government Failures, and they can be as debilitating (or even more) as market failures.
- Before the advent of modern capitalism, the State used to intervene in economic activities of the society to a substantial extent. Such a system did not attract much criticism because the society did not know the advantages of market mechanism with which to compare the advantages of State intervention.
- The State is expected to pursue a policy of maximizing aggregate social welfare function and to regulate and monitor the working of the economy to the extent needed. It is also expected to overcome its own weaknesses and, in particular uproot vested interests. Similarly, the private sector is expected to abide by the policy framework of the State and, like the State, avoid DUP.

1.5 KEY TERMS

- **Market failure:** When the outcome of a primarily unregulated market mechanism deviates from generally accepted socio-economic criteria, it is termed a case of 'market failure'.
- **Externalities**: They are economic effects which flow from their production or use to third parties or economic units.
- **Impure public goods:** Goods which are neither pure public goods nor pure private goods are called impure public goods (also called quasi-public goods or quasi-private goods).
- **Government failures:** The State suffers from several weaknesses (infirmities) of its own, more so in a developing country like India; these infirmities are known as Government Failures.

1.6 ANSWERS TO 'CHECK YOUR PROGRESS'

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1. Musgrave and Musgrave describe a framework of economic activities which should legitimately be assigned to the State. These activities may be classified into three 'functions' or 'branches', namely, allocation function, distribution function and stabilization function.
2. When the outcome of a primarily unregulated market mechanism deviates from generally accepted socio-economic criteria, it is termed a case of 'market failure'.
3. Non-marketable external effects of public goods cannot be priced, this creates a divergence between private and social production costs.
4. The State suffers from several weaknesses (infirmities) of its own, more so in a developing country like India. These infirmities are known as Government Failures, and they can be as debilitating (or even more) as market failures.
5. Pure public goods are characterized by the existence of externalities, that is, economic effects which flow from their production or use etc. to third parties or economic units.
6. Externalities are of two types:
   - Market external (or marketable external) effects
   - Non-market external (or non-marketable external) effects
7. Paul A. Samuelson had highlighted some problems relating to a public good, such as the level of government that should provide it, quantification and aggregation of the preferences of its users, financing its provision and the like.

1.7 QUESTIONS AND EXERCISES

Short-Answer Questions

1. State the difference between a capitalist economy and a socialist economy.
2. Why is the modern economy termed as a mixed economy?
3. By what are the earnings of an individual (family) in a market economy determined?
4. What are the reasons that would lead the pure public goods suffer from inefficiency if left in the hands of the private sector?
5. What are merit goods? Give examples.
6. State the role of the State in providing infrastructure.
7. Write a note on Indicative State Economic Planning and the role of fiscal policy in it.
8. What are the drawbacks of State policy?
9. What causes a divergence between private and social marginal benefits?
10. What was the State of economic activities before the advent of modern capitalism?

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Long-Answer Questions

1. Describe the role of government in economic activity.
2. 'The field of public finance is derived from the functions which the State chooses to perform'. Elaborate.
3. 'The need to study public finance originates from market failures'. Evaluate this statement.
4. Explain externality as a characteristic of public goods.
5. Discuss the Tiebout–Oates model in detail.
6. Assess the government intervention in economic activities.
7. What are externalities? What is its role in determining the scope of government activities?
8. Write a note on Tiebout–Oates Model of public goods.

1.8 FURTHER READING

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Website

www.ecedweb.unomaha.edu

Council for Economic Education, New York

Endnotes

1 The term public sector or State sector includes all forms of government undertakings.

2 The term *Market failure* refers to the outcomes of market mechanism which fail to correspond to the objectives and criteria acceptable to the society. Regulation of market mechanism by the State refers to regulation of and restrictions on prices, demand and supply flows, and other economic decisions associated with them.

3 Richard A. Musgrave and Peggy B. Musgrave, *Public Finance in Theory and Practice*, 5th Edition, Tata McGraw Hill Education Pvt Limited, New Delhi.

4 Bernard P. Herber, *Modern Public Finance,* Richard D. Irwin, 1967, p.27.

5 Charles Mills Tiebout, "A Pure Theory of Local Expenditures", *Journal of Political Economy*, Vol. 64, (1956), pp. 416–424.

6 Wallace E. Oates (1972), *Fiscal Federalism*, (1972), Harcourt Brace.

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UNIT 2 SIZE OF GOVERNMENT EXPENDITURE

Structure

2.0 Introduction
2.1 Unit Objectives
2.2 Classical and Neoclassical Views on Public Expenditure
  2.2.1 Keynesian View on Public Expenditure
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2.5 Summary
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2.0 INTRODUCTION

Public expenditure refers to the expenses, including transfers, which a government disburses for: (i) its own maintenance, (ii) the society and the economy, and (iii) helping other countries. In practice, however, with expanding State activities, it is becoming increasingly difficult to demarcate the portion of public expenditure meant for the maintenance of the government itself from the total.

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

There are two important and well known *theories of increasing public expenditure*. The first one is associated with Wagner and the other one with Wiseman and Peacock.

Ideas regarding the need and the effects of public expenditure have varied over time. The earlier thinking was imbedded in the philosophy of *laissez-faire* according to which a good government always governed the least. It was claimed that everyone was the best judge of his own interests and the government could not be expected to decide on his behalf. The government was to confine itself to the preservation of the society and undertake those activities and projects which were commercially unprofitable but essential for the economy and society.

However, over time, it became increasingly difficult to ignore the fact of 'market failures' and the need for State intervention and regulation to remedy its ill effects. This

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not only led to a rapid growth of the government sector and public expenditure but also bred various hypotheses concerning public expenditure. However, approaches adopted by various thinkers and writers lacked uniformity with an inevitable lack of a general agreement on the effects of public expenditure and an optimum expenditure policy. Differences of opinion persisted over the effectiveness of a public expenditure policy in areas of economic stabilization, distributive justice, regional disparities, inter-sectoral balance, and so on. In this unit, you will be acquainted with the classical and neoclassical views on public expenditure, the Keynesian economic theory and Keynes contribution towards the study of economics, Wagner's law of increasing State activities and the effects of public expenditure.

2.1 UNIT OBJECTIVES

After going through this unit, you will be able to:

- Describe the classical and neoclassical views on public expenditure
- Assess the Keynesian economic theory and Keynes contribution towards the study of economics
- Discuss Wagner's law of increasing state activities
- Analyse the effects of public expenditure

2.2 CLASSICAL AND NEOCLASSICAL VIEWS ON PUBLIC EXPENDITURE

The origin of macroeconomic theory can be traced to the writings of the mercantilists and the physiocrats well before the development of the classical macroeconomic theory. Although the orthodox economic theory assuming full employment, was largely microeconomic theory concerned with the analysis of allocation of economy's given resources between their different competing uses and determination of the relative prices, this is not to suggest that there was no classical macroeconomic theory concerned with the analysis of the aggregate output, employment and general price level. In a way, the classical economic theory was almost macroeconomics while the neoclassical theory was nothing but microeconomics. In the first half of the 19th century, economics was regarded as a study of the nature and causes of the wealth of nations.

The classicists had their own views on the theory of general price level distinguished from the theory of relative prices. In classical economics[1], the quantity theory of money, theory of economic growth and discussion about the cyclical fluctuations—topics which are important in modern macroeconomic theory—occupied significant place. It might, however, be said that the primary concern of the classical economic theory was still not the determination of the levels of output and employment since it assumed a situation of automatic full employment. The bulk of the traditional economic theory until the publication of Keynes' great work entitled *The General Theory of Employment, Interest and Money* published in 1936 was microeconomics. However, the monetary and business cycle theories having a long history are clearly macroeconomic in character.

Led by Alfred Marshall, the neoclassical economists implicitly made the conclusions derived from the Say's Law of Markets a premise of their analysis of value and distribution. By assuming full employment and the related levels of output and income,

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Marshall and his followers focused their attention on the analytical problems of the determination of relative prices of goods and resource allocation among their alternative competing uses. The problem of the extent of the use of resources was virtually assumed away since in the long run every resource unit was assumed to be optimally employed. Consequently, it was left to the under consumptionists J. A. Hobson, A. F. Mummery, Wilhelm Roscher and Thornstein Veblen—and the advocates of the disproportionate investment theory—Arthur Spiethoff, Tugan-Baranowsky and Joseph A Schumpeter—to challenge the Say's Law of Markets. Although Alfred Marshall's chief concern was with the explanation of determination of the commodity and factor prices, nevertheless he also discussed the relationship between the general price level (P), the total quantity of money in circulation (M), the fraction of their total money income which people hold in the form of cash balances (k) and the amount of total real output (O). He formulated the famous Cambridge or cash-balances equation of exchange of the quantity theory of money. Thus, in so far as Marshall developed the quantity theory of money, he contributed in an important way to the development of macroeconomics. In this, he was followed by his other Cambridge colleagues, Arthur Cecil Pigou, Dennis Holme Robertson and John Maynard Keynes who enunciated their own but almost similar quantity theory of money equations.

Alfred Marshall, however, failed to integrate the theory of money with the theory of income and output. Monetary theory dwelt largely in a compartment separate from the theory of income, output and employment and its contents were virtually limited to the quantity theory of money. It was Keynes who, by introducing the asset or speculative demand for cash balances, by relating it to interest rate and by showing the relationship between interest rate and the investment demand schedule, successfully integrated the monetary theory with the theory of aggregate income, output and employment.

Keynesian macroeconomics[2] (also called the new economics) refers to that body of economic theory whose base is Keynes' book *The General Theory*. The most distinguishing feature of the Keynesian macroeconomics is its neat exposition of how an economy may be in equilibrium at less than full employment level. It amounted to an outright rejection of the classical macroeconomic theory which denied such a possibility. This fundamental difference between the classical and the Keynesian approaches is of vital significance from the point of view of economic policy because once the basic Keynesian argument that left to itself the economy would not automatically attain full employment, a positive role for the government in the form of incurring massive expenditure on public works programmes in order to bridge the gap between the aggregate demand and the aggregate supply at full employment caused by the deficiency of the aggregate effective demand can be fully justified.

By giving a new direction to fiscal policy and by defending the massive public works programme during depression, the Keynesian economics spurred the development of macroeconomic theory during the past seven decades following the publication of *The General Theory*. Keynes was, however, also responsible for the emasculation of monetary policy by focusing attention on the liquidity trap which prevents the rate of interest from falling below a certain critical minimum (Keynes believed it to be around 2 per cent) level and at this rate of interest the aggregate real income generated in the economy might fall short of the full employment level of the aggregate real income.

The most important contribution of Keynes' *The General Theory* to the development of macroeconomic theory is the clear and specific formulation of the consumption function.[3] According to Alvin H. Hansen, 'this is an epoch-making contribution

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to the tools of economic analysis, analogous to, but even more important than, Marshall's discovery of the demand function.'[4] It is by far the most effective tool that has been added to the modern macroeconomists' kit of tools. Keynes' *The General Theory* has made the income, output and employment analysis for the modern economists as important as was the price analysis for the classicists.

The other significant contributions of Keynes, to mention only a few, include the theory of the rate of interest indicating its great importance in the effective implementation of fiscal policy; clear exposition of the concept of marginal efficiency of capital and its vital relationship with business cycle; investment multiplier analysis; theory of money and prices and the liquidity preference analysis. The Keynesian liquidity preference analysis explains that it is possible for a rich and industrially advanced society to hold the enormous amount of liquid assets without fearing inflation. Keynes' contribution to the development of macroeconomic theory is essentially an introduction to the Keynesian analysis of income and employment emerging from Keynes' great work entitled *The General Theory of Employment, Interest and Money* published in 1936.

Neoclassical Views on Public Expenditure

The neoclassical theory is the maximum extensively used economic theory today; you cannot have a significant conversation about economics deprived of using the words supply, demand, profit, and satisfaction. The theory was constructed on fundamentals laid by classical theorists Adam Smith (1723-1790) and David Ricardo (1772-1823).

The theory that emphasises on the way insight of effectiveness or usefulness of products disturbs market forces: supply and demand is neoclassical theory. It recommends that because the consumer's objective is utility maximization, or customer satisfaction, and that the organization's objective is profit boosting, the customer is eventually in control of market forces such as price and demand.

Consumers frequently distinguish a product as being more valuable than the cost of production, thereby affecting demand for the product. This is one of the most substantial beliefs of the neoclassical theory.

The semi-precious gemstone 'agate' is one of the most common minerals on earth. Jewellery designers cut and polish the agate and then sell it in finished jewellery for hundreds or thousands of dollars (depending on the name of the designer), and customers willingly buy it. The importance of adornment increases the demand for the jewellery, which increases its price (as demand exceeds supply), even though the cost of production may be minuscule by comparison.

Second belief of neoclassical theory is that economic choices are often constructed on the probability that an economic choice will turn out to be profitable or valuable in the future. Think of the environmental fright of global warming and ozone reduction. The way we live our everyday lives is adding to the difficulty, so would it not make sense to finance now in making bikes or breeding horses or even producing energy efficient jet packs? Possibly government strategies should command that automobile producers only make fuel efficient, green cars with caps on the permissible amount of discharges.

Assumptions of Neoclassical Theory

Let us look at some of the assumptions of the neoclassical theory:

1. Judgements on economic concerns are always made judiciously, based on full information on the worth of the product or service
2. Consumers relate goods and then make the buying decision based on the apparent utility
3. The customer's main motive is to capitalize on the satisfaction afforded by the use of the product
4. The main aim of companies is to maximize profits
5. Market equilibrium is accomplished only when both the customer and the company accomplish their individual objectives.

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2.2.1 Keynesian View on Public Expenditure

The central tenet of this school of thought is that government intervention can stabilize the economy

Just how important is money? Few would deny that it plays a key role in the economy.

During the Great Depression of the 1930s, existing economic theory was unable either to explain the causes of the severe worldwide economic collapse or to provide an adequate public policy solution to jump-start production and employment.

British economist John Maynard Keynes spearheaded a revolution in economic thinking that overturned the then-prevailing idea that free markets would automatically provide full employment—that is, that everyone who wanted a job would have one as long as workers were flexible in their wage demands. The main plank of Keynes's theory, which has come to bear his name, is the assertion that aggregate demand—measured as the sum of spending by households, businesses, and the government—is the most important driving force in an economy. Keynes further asserted that free markets have no self-balancing mechanisms that lead to full employment. Keynesian economists justify government intervention through public policies that aim to achieve full employment and price stability.

The Revolutionary Idea

Keynes argued that inadequate overall demand could lead to prolonged periods of high unemployment. An economy's output of goods and services is the sum of four components: Consumption, investment, government purchases, and net exports (the difference between what a country sells to and buys from foreign countries). Any increase in demand has to come from one of these four components. But during a recession, strong forces often dampen demand as spending goes down. For example, during economic downturns uncertainty often erodes consumer confidence, causing them to reduce their spending, especially on discretionary purchases like a house or a car. This reduction in spending by consumers can result in less investment spending by businesses, as firms respond to weakened demand for their products. This puts the task of increasing output on the shoulders of the government. According to Keynesian economics, state intervention is necessary to moderate the booms and busts in economic activity, otherwise known as the business cycle.

There are three principal tenets in the Keynesian description of how the economy works:

- **Aggregate demand is influenced by many economic decisions—public and private.** Private sector decisions can sometimes lead to adverse macroeconomic outcomes, such as reduction in consumer spending during a recession. These market failures sometimes call for active policies by the

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government, such as a fiscal stimulus package (explained below). Therefore, Keynesian economics supports a mixed economy guided mainly by the private sector but partly operated by the government.

- **Prices, and especially wages, respond slowly to changes in supply and demand**, resulting in periodic shortages and surpluses, especially of labour.
- **Changes in aggregate demand, whether anticipated or unanticipated, have their greatest short-run effect on real output and employment, not on prices.** Keynesians believe that, because prices are somewhat rigid, fluctuations in any component of spending—consumption, investment, or government expenditures—cause output to change. If government spending increases, for example, and all other spending components remain constant, then output will increase. Keynesian models of economic activity also include a multiplier effect; that is, output changes by some multiple of the increase or decrease in spending that caused the change. If the fiscal multiplier is greater than one, then a one dollar increase in government spending would result in an increase in output greater than one dollar.

Stabilizing the Economy

No policy prescriptions follow from these three tenets alone. What distinguishes Keynesians from other economists is their belief in activist policies to reduce the amplitude of the business cycle, which they rank among the most important of all economic problems.

Rather than seeing unbalanced government budgets as wrong, Keynes advocated so-called *countercyclical fiscal policies* that act against the direction of the business cycle. For example, Keynesian economists would advocate deficit spending on labour-intensive infrastructure projects to stimulate employment and stabilize wages during economic downturns. They would raise taxes to cool the economy and prevent inflation when there is abundant demand-side growth. Monetary policy could also be used to stimulate the economy—for example, by reducing interest rates to encourage investment. The exception occurs during a liquidity trap, when increases in the money stock fail to lower interest rates and, therefore, do not boost output and employment.

Keynes argued that governments should solve problems in the short run rather than wait for market forces to fix things over the long run, because, as he wrote, 'In the long run, we are all dead.' This does not mean that Keynesians advocate adjusting policies every few months to keep the economy at full employment. In fact, they believe that governments cannot know enough to fine-tune successfully.

Keynesianism Evolves

Even though his ideas were widely accepted while Keynes was alive, they were also scrutinized and contested by several contemporary thinkers. Particularly noteworthy were his arguments with the Austrian School of Economics, whose adherents believed that recessions and booms are a part of the natural order and that government intervention only worsens the recovery process.

Keynesian economics dominated economic theory and policy after World War II until the 1970s, when many advanced economies suffered both inflation and slow growth, a condition dubbed 'stagflation'. Keynesian theory's popularity waned then because it had no appropriate policy response for stagflation. Monetarist economists doubted the ability of governments to regulate the business cycle with fiscal policy and argued that

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judicious use of monetary policy (essentially controlling the supply of money to affect interest rates) could alleviate the crisis (see 'What Is Monetarism?' in the March 2014 *F&D*). Members of the monetarist school also maintained that money can have an effect on output in the short run but believed that in the long run, expansionary monetary policy leads to inflation only. Keynesian economists largely adopted these critiques, adding to the original theory a better integration of the short and the long run and an understanding of the long-run neutrality of money—the idea that a change in the stock of money affects only nominal variables in the economy, such as prices and wages, and has no effect on real variables, like employment and output.

Both Keynesians and monetarists came under scrutiny with the rise of the new classical school during the mid-1970s. The new classical school asserted that policymakers are ineffective because individual market participants can anticipate the changes from a policy and act in advance to counteract them. A new generation of Keynesians that arose in the 1970s and 1980s argued that even though individuals can anticipate correctly, aggregate markets may not clear instantaneously; therefore, fiscal policy can still be effective in the short run.

The global financial crisis of 2007–08 caused a resurgence in Keynesian thought. It was the theoretical underpinnings of economic policies in response to the crisis by many governments, including in the United States and the United Kingdom. As the global recession was unfurling in late 2008, Harvard professor N. Gregory Mankiw wrote in the *New York Times*, 'If you were going to turn to only one economist to understand the problems facing the economy, there is little doubt that the economist would be John Maynard Keynes. Although Keynes died more than a half-century ago, his diagnosis of recessions and depressions remains the foundation of modern macroeconomics. Keynes wrote, "Practical men, who believe themselves to be quite exempt from any intellectual influence, are usually the slave of some defunct economist." In 2008, no defunct economist is more prominent than Keynes himself.'

But the 2007–08 crisis also showed that Keynesian theory had to better include the role of the financial system. Keynesian economists are rectifying that omission by integrating the real and financial sectors of the economy.

2.3 WAGNER'S LAW OF INCREASING STATE ACTIVITIES

Adolph Wagner (1835–1917), a German economist, derived his famous *Law of Increasing State Activities* primarily from historical facts of Germany. Wagner claimed that every government (whether national or sub-national) has an inherent tendency to expand its activities (and therefore, public expenditure), both intensively and extensively, such that the government sector tends to grow faster than the economy as a whole. From the original version of this theory, it is not clear whether Wagner was talking of an increase in (a) absolute level of public expenditure, (b) the ratio of government expenditure to GNP, or (c) proportion of public sector in the total economy. Musgrave believes that Wagner was thinking of (c) above. F. S. Nitti not only supported Wagner's thesis but also concluded with empirical evidence that it was equally applicable to several other governments which differed widely from each other. All kinds of governments, irrespective of their level (that is, whether national or sub-national), intentions (peace loving or belligerent), and size, etc., had exhibited the same tendency of increasing their public expenditure.

Check Your Progress

1. What were the topics that were important in modern macroeconomic theory in classical economics?
2. What were Alfred Marshall's chief concerns?
3. Name the base of Keynesian macroeconomics.

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Wagner's Law was more of an empirical investigation than a theoretical one. *It did not reveal the inner compulsions under which a government has to increase its activities and public expenditure as time passes.* It was applicable only in the case of a modern *progressive* government which was interested in expanding public sector of the economy for its overall benefit. This general tendency of expanding State activities had a definite long term trend, though in the short run, financial difficulties and other hurdles could come in its way. 'But in the long run the desire for development of a progressive people will always overcome these financial difficulties.'[5]

Thus, Wagner was emphasising a long term tendency rather than short term changes in public expenditure. Moreover, he was not interested in the mechanism of increase in public expenditure. Since his study was based on the historical facts, the precise quantitative relationship between the extent of increase in public expenditure and time taken by it was not expressed in any logical or functional manner. His contention that public expenditure had been increasing over time, could not be used to extrapolate its future rate of growth. Actually, it is consistent with Wagner's law to State that, in future, the State expenditure would increase at a rate slower than the national income though, factually speaking, it had increased at a faster rate in the past. Thus, in the initial stages of economic growth, the State finds that it has to expand its activities quite fast in several fields like education, health, civic amenities, transport, communications, and so on. But when the initial kick is no longer needed, then the increase in State activities may be slowed down.

2.3.1 Extending Wagner's Law

Several reasons, as elaborated by various authors, can be advanced for this inherent long-term tendency recorded in history.

Intensification of Traditional Functions

Over time, traditional functions of the State, including defence and administrative ones, have acquired a greater depth. Correspondingly, need has also arisen to manage the entire government machinery by professional experts supported by expensive equipment, etc. All this has added to the budgetary needs of the government.

Extended Coverage of Government Activities

Modern societies are becoming increasingly complex and demanding on various counts. They are facing ever new problems which need to be tackled by the State including hitherto insufficiently acknowledged market failures. These days, most modern governments aim at maximizing aggregate social welfare by a judicious combination of the advantages of both—market mechanism and government regulations, like subsidies and old age pensions. Ensuring adequate provision of merit goods and infrastructure facilities has also gained a high priority. The upshot of the argument is that, even with the recognition of the merits of a free market mechanism, the sphere of State activities is registering an ongoing expansion.

Public Goods

These days, in contrast with the tenets of *laissez-faire* philosophy, the prevalent opinion is that the state should provide and expand the volume and variety of public goods.

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These concepts, though not identical, are closely related to each other and add to government's expenditure without a corresponding addition to the contribution of government services.

1. Rent and DUP

Rent is an excess of the earnings of the owner of a resource over its opportunity cost. Anne Krueger introduced this term in 1974. This was followed by an explosion of literature on this phenomenon and Jagdish Bhagwati coined the term 'directly unproductive profit-seeking (DUP) activities' in 1982. This concept embraces a wide variety of activities including the rent seeking ones considered by Krueger. It bears reiteration that 'rent' represents an income in excess of the one which would be determined by free competitive forces after allowing for adjustment process. Conditions for rent seeking activities are created by manipulation of demand and/or supply forces by various means including acquisition of some monopoly powers, lobbying for licences and permits, gaining special privileges, legislative measures, creation and promotion of vested interests, utilizing resources for evading government regulation and so on. It is obvious that resources used in promoting rent seeking activities get wasted from national point of view. DUP redistribute existing GDP in favour of the decision makers or some other sections being favoured by them. In addition, the DUP may have the spill over effects of even reducing GDP.

It is now realized that the phenomenon of DUP is widely prevalent in government circles and public sector undertakings, particularly in the developing countries which usually suffer from weak administration and well entrenched vested interests. The decision makers are tempted to take advantage of this situation and promote their own interests and, generally, they also get sufficient opportunities to do so. By implication, this inflates the expenditure side of the government budget without commensurate addition to either the economy's productivity or its GDP.

2. X-inefficiency

The concept of X-inefficiency was introduced by Harvey Leibenstein in 1966. This term refers to an inefficient use of productive resources. It is the difference between efficient behaviour of a firm assumed by or implied by economic theory and its observed behaviour. In private sector, one reason for its existence may be the existence of some monopolistic elements or irrational preferences by the purchasers. Both are very common in practice. In government activities, X-inefficiency is rooted in several inherent causes of its very functioning and are well known as 'government failures'. These causes include overstaffing, bureaucratic delays, rigid rules and regulations, near absence of an effective system of reward and punishment, and so on. Consequently, a portion of public expenditure goes waste. And the government has to incur additional expenditure for achieving the same result.

3. Baumol's Cost Disease

This concept, also known as Baumol's Disease, and Baumol's Effect, was introduced by William J. Baumol and William G. Bowen in 1960s. It refers to the phenomenon of wage incomes being higher than the productivity of the wage earners. This phenomenon is also widely prevalent in government circles and public sector undertakings because of

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several reasons like absence of a sense of self-duty and ineffective implementation of the principle of reward and punishment. Government functioning is guided by audit-oriented rules and procedural delays. The functionaries of state are not rewarded for their performance, and they are not penalized for delays, inefficiency and wrong decisions so long as they do not violate relevant rules and procedures. The strength of the staff is also determined by rigid rules resulting in a slow and insufficient response to the changing requirements. In other words, the government machinery works inefficiently and per unit cost of providing state services is higher than what it should be. Similarly, Allan Peacock introduced the concept of 'productivity lag.' He also emphasized the inherent feature of low productivity in the state sector which result in cost-overruns.

Additional Factors

Empirical and theoretical studies have identified several additional factors (some of them closely associated with the ones described above) which play a major role in the growth of state activities and its expenditure.

- Many societies are experiencing a *growing population* which becomes a major contributory factor in the growth of public expenditure. The scale of state services has to increase to keep pace with population growth, including, for example, more schools, hospitals, and police, etc.
- Most countries have registered *growing urbanization*. Existing cities grow and new ones come up. Urbanization entails a much larger per capita expenditure on civic amenities. It necessitates a much larger supply of incidental services like those relating to traffic, roads, and so on.
- Prices have a secular tendency to go up. This also adds to public expenditure even if the scale of state services remains unchanged.
- The size and nature of public services necessitates an *ever-increasing specialization*. The quality of the services necessitates an ongoing improvement, both on account of historical evolution and circumstantial compulsions. Better quality services and higher qualified administrators, technicians etc., imply a higher cost of providing public services. Also, the government has to purchase a number of goods and services for its own maintenance. With rising prices, expenditure on them also goes up.
- A modern government considers it a part of its duty to *protect the economy and society from the 'failures' of market mechanism*. Accordingly, it adopts anti-cyclical and other regulatory measures. Efforts are made to reduce the income and wealth inequalities and bring about social and economic justice which, in turn, add to public expenditure.
- Modern governments have shown a tendency to run into debt and this leads to a substantial (sometimes even unsustainable) increase in public expenditure in the form of *increasing cost of debt servicing* and repayment of the loans.
- Popularity of the *philosophy of planning and economic growth* as also increasing government activities in the areas of capital accumulation and economic growth have also contributed to the growth of public sector.
- Musgrave and Musgrave emphasize a *growing complementarity between public and private consumer and capital goods* so that with an increase in per capita income, demand for public services also increases with a corresponding growth in public expenditure.

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- There is an inherent tendency of *vested interests* to gain strength and demand an increase in public expenditure for their own benefit. For this reason, a variety of *subsidies* and other *populist steps* inflate the public budget.
- It is claimed that government *bureaucracy has an inherent tendency to expand* irrespective of the size and nature of public services provided by it.
- At the same time, there is a myth that the individuals can voluntarily get together to resolve market deficiencies without government intervention. It is known as Coase Fallacy. This myth is exposed by the Fundamental Non Decentralizability Theorem expounded by B. C. Greenwald and J. Stiglitz.

Wagner's model has an important analytical limitation which can be removed in an expanded version. A government is not a monolithic entity. It comprises a number of organs and associated institutions. Households and business units in the private sector also do not observe government activities passively. Instead, they respond to them more actively. Thus, government decision-making has become a complex phenomenon and has multifarious tendencies to increase public expenditure.

Wagner Squared

Buchanan and Tullock, in the context of US experience, have viewed Wagner's theory in terms of increasing discrepancy between growth of government expenditure and government output and termed the phenomenon as 'Wagner Squared'. They base their argument on two facts.

First, in contrast with the situation prevailing in the private sector, expenditure on civil servants grows faster than the corresponding increase in their output.

Second, with increasing social security and other measures, the proportion of population receiving transfer payments from authorities keeps increasing. This way, public expenditure increases both in absolute terms and as a proportion of national income. It may be noted that even if the expenditure on civil services as a proportion of expenditure on employees in the private sector does not increase, and even if the proportion of population receiving transfer payments remains stable, the Wagner Squared hypothesis would hold. The major limitation of this hypothesis is that output of public servants cannot be measured with any degree of accuracy.

Alan Tait Peacock does not agree with this explanation of Buchanan and Tullock. He says that a typical individual does not relate his tax payments with the receipt of government services. He considers his tax liabilities as they are and strives for additional public services; that is, he fights for additional opportunities for milking government services and not for reducing taxes. The politicians, to win their votes, try to expand government services and therefore impose more taxes. The government expenditure keeps on increasing without any reference to productivity/cost ratio of services provided by it.

Access to Non-tax Resources

We may add that modern governments have found new weapons whereby to increase their expenditure even without collecting more taxes. They now own *public undertakings* which can be a source of revenue to them. But more important than that is *their capacity and willingness to resort to deficit financing*. Even in advanced countries, deficit financing has become a common occurrence. The public opinion is not strong enough to check this sort of policy even though it has disastrous inflationary effects.

Check Your Progress

4. From where did Wagner derive his famous Law of Increasing State Activities?
5. Who introduced the term 'rent' and when?
6. State the major limitation of Wagner Squared hypothesis.

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2.4 EFFECTS OF PUBLIC EXPENDITURE

A meaningful discussion covering public expenditure should start with the fact that the government sector is an integral part of the economy with inter-sectoral input-output relationships and mutual interdependence. It must also take into account the basic differences between the government and non-government sectors. Thus, while the private sector is guided by self-interest and the market mechanism, the government sector may ignore commercial objectives and may also be used by the authorities for pushing the private sector of the economy along certain lines. All these facts have a deep bearing upon the likely effects of public expenditure, which are frequently not easy to assess and analyze.

2.4.1 Public Expenditure and Economic Stabilization

It is a well-known fact that the market forces by themselves leave much to be desired in the field of economic results. The more advanced and free the market mechanism, the more prone is the economy to fluctuations in income, employment, and prices. It is for this reason that with the development of capitalism, free enterprise economies came to experience ever stronger trade cycles. Accordingly, the need to use some effective anti-cyclical measures gained universal acceptance—more so since the havoc caused by the Great Depression of the 1930s. Keynesian diagnosis of the basic cause of the ills of a developed market economy was the deficiency of effective demand which was caused by a low marginal propensity to consume coupled with a low marginal efficiency of investment. He, therefore, advocated a continuous injection of additional purchasing power in the market through stimulation of investment and consumption activities and through direct public investment. This direct investment was a part of the public expenditure and was meant to add to the effective demand in the market and generate a high-value multiplier by distributing income to those sections of the population which had a high marginal propensity to consume. It was also claimed that the addition to demand by such sections would stimulate investment activity and further add to demand flows. Keynesian prescription was basically directed towards curing a State of depression— but the logic of the argument can also be extended to that of curing an inflationary situation. To put it differently, Keynesian policy prescription can be converted into a scheme of compensatory finance —that is, counterbalancing the deficiency or excess of demand by the private sector of the economy. During depression, the State was expected to increase total spending in the economy. And this could be done, if need be, through deficit financing. Public borrowings, to the extent they came out of savings of the people, would help in the stimulation of overall demand when they were spent. This would be more so when the savings of the people were not finding an investment outlet, due to an all-round deficiency of demand.

Similarly, if deficit financing was being met through creation of additional money, the stimulating effect of additional public expenditure would again be felt. In either case, there would be a net increase in total expenditure and demand flows in the economy. During a boom, on the other hand, the need is to curb excess demand. This may be done through reducing public expenditure while maintaining the same amount of taxation and/or borrowings. Here, taxation would drain away some of the purchasing power from the hands of the people and public borrowings would in the same way cut into market investment (since market savings are not likely to go uninvested on account of good investment opportunities). Thus, curtailing of public expenditure would restrain the inflationary pressures.

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It must be remembered that the use of public expenditure as an anti-cyclical weapon implies the existence of a well-knit and sensitive market mechanism where, through the free working of the input-output relationships between different industries, any change starting in one industry spreads to the rest of the economy. It is necessary that such spreading out of effects should be even enough and without undue time lags. And if a depression is to be cured through stepping up of demand, then there must be adequate unutilized excess capacity in the economy. If these assumptions are satisfied, then the authorities have to concern themselves only with the aggregate demand and not with the particular directions in which it is flowing, since through the interaction between demand and supply flows, an automatic adjustment takes place. In a market, where there are technical and other rigidities, the effect created in one sector may not evenly spread to the others. It must be noted that such rigidities are not absent even in developed countries. As a result, under such circumstances, public expenditure no longer remains a simple and easy tool.

The authorities have to regulate not only the total magnitude of demand in the economy, they also have to ensure that the subdivisions of the emand flows match the supply flows. Public expenditure as an anti-cyclical tool will have to be devised in a detailed manner. If this care is not taken, and if the authorities use public expenditure just to stimulate demand in general, then such a stimulating effect will be felt only for certain items while many other industries and areas would remain unaffected, or would be affected only partially. Actually, it is quite possible that while some sectors of the economy continue suffering from deficiency of demand, some others might be groaning under inflationary pressures on account of too much demand. Similarly, it is also possible that when the government reduces its expenditure to curtail the over-all demand, the effect is more or less concentrated in the industries for which the government reduces the expenditure directly.

As is well-known, an underdeveloped country suffers from far greater rigidities than do the developed countries. Shortages of particular inputs are common. There are gaps in the form of absence of certain industries or adequate productive capacity therein. Various kinds of institutional and legal restrictions prevent a proper and quick market response on the part of different sectors of the economy; and it may be the case even with those sectors to which public expenditure is applied directly. As a result the problem of bringing about economic stability is far more complex in this case.

Another factor which contributes to the complexity of the problem is the fact that an underdeveloped economy is having, generally speaking, inelastic demand for essential maintenance imports while demand for its exports is quite weak. The result is that if the world prices for its exports fall, it is forced to distress sales; while if its import prices increase, its cost price level is pushed up. Ordinarily an underdeveloped country does not have much defence against this type of instability. Public expenditure cannot remedy the situation to a sufficient degree. Normally, through export and import duties, it should be possible to bring about desired changes in exports and imports; but under unfavourable conditions, this is generally not effective enough. And for some countries, recurring balance of payments problems add to their difficulties.

We may say that in underdeveloped countries, public expenditure as a general weapon against economic instability has only a limited use; a very detailed programme has to be worked out to meet the specific problems on hand and even then public expenditure alone may not be adequate to overcome the hurdles. A careful and judicious combination of the import and export subsidies, duties and other steps has to be used for achieving effective results.

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2.4.2 Public Expenditure and Production

Public expenditure can help the economy in numerous ways in attaining higher levels of production and growth. The ways in which such effects might be brought about are obviously interrelated. The analysis of these effects can be taken up separately in the context of developed and underdeveloped economies.

Let us first take up the case of a developed market economy. Such an economy has enough flexibility but may be suffering from a deficiency of effective demand. Public expenditure can add to the effective demand directly and thus generate conditions favourable for the market forces to push up production. Actually such public investment need not be productive in the sense of adding to the supply side of the market also. This public investment can just be a means of disbursing purchasing power to those who would spend the same and add to the effective demand.

But the technique of increasing production through increasing demand becomes ineffective once the level of full employment is reached. Money income goes up but real income does not increase correspondingly because real income depends upon the use of real resources. If, therefore, demand is pushed beyond full employment, it will only add to the inflationary pressures. It may be noted further that the public expenditure may not be able to push up production proportionately because of various rigidities from which even a developed economy is likely to suffer. For example, some industries may not have unutilized excess capacity when demand goes up. In some industries, monopolistic practices may be in vogue and there can be strong militant trade unions. Under different technical and other types of rigidities, the economy may not be able to respond fully to increased demand. The result is likely to be a partial increase in production when demand increases through the use of public expenditure and the results can be quite inflationary beyond a limit. Once we recognize the rigidities from which a developed economy may be suffering and the corresponding lack of complete inter-flow of demand between its various sectors, the co-existence of inflation and unemployment cannot be ruled out. In such a case the authorities cannot be indifferent as regards the manner in which public expenditure generates additional demand in the economy. Specific details of public expenditure would have to be decided so as to achieve selective additions to demand along those lines which suffer from shortage of effective demand.

The case is a different one with underdeveloped economies. Such economies are characterized by a low level of saving and investment activity. This deficiency, again, may be remedied by stimulating private saving and investment, or through direct public saving and investment, or both. Thus, in underdeveloped countries, there is a shortage of social overheads, skilled labour, capital equipment and machinery. A number of important and basic industries either do not exist or need to the expanded. Public expenditure can be directly used to create and maintain social overheads. It can also be used to create human skills through education and training. A country like India suffers from the problem of regional disparities. Various tax concessions and credit facilities can be provided for setting up industries in these areas. Public expenditure can be used to provide necessary economic infrastructure for the development of selected economic activities and can be used to give subsidies for increasing their profitability. Thus, the authorities can strengthen the process of capital accumulation. To the extent this capital formation is financed through foreign aid, the process of economic growth is accelerated.

In this process of accelerating capital accumulation, the authorities have to take a few precautions so as to maximize the benefits of public expenditure and to avoid the possible harmful incidental effects.

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Several investment projects have long gestation periods, that is, it takes a long time before the commencement of output. Similarly, some other forms of public expenditure (such as on education) exert only long-term beneficial effects on production. But there is an addition to money income right from the beginning. In the short run, therefore, such public expenditure generates inflationary pressures. Hence, care must be taken to ensure that inflationary pressures remain within manageable limits.

A sizeable portion of public expenditure is wasted due to faulty planning and execution. This must be avoided.

On account of inherent scarcity of productive resources, care must be taken to determine appropriate investment priorities and stick to them. A proper cost-benefit study should be taken up for each project as also its relationship with other industries in terms of input-output coefficients. Emphasis must be laid on industries to which, for various economic and social reasons, a high priority is accorded and which satisfy the cost-benefit criteria.

Creation of additional productive assets is meaningful only if adequate public expenditure is devoted to their maintenance and operation.

Public expenditure is known for its sub-optimal output. In the very nature of things, it is not possible to fully remedy this situation, but efforts should be made to minimize the wastage of public expenditure.

The authorities should carefully allocate public expenditure over various projects and schemes meant to stimulate private investment. An underdeveloped economy has some untapped resources, but the extent to which they can be utilized in the near future and the extent to which they can be shifted from one use to the other faces several constraints. Accordingly, the size and composition of public expenditure are closely linked with the way it is financed. Resorting to printing press or borrowing from the central bank of the country will add to the aggregate demand in the country. Such a course, therefore, has to be kept under observation for its possible inflationary effects. In contrast, financing of public expenditure through market borrowings or taxation may drain the private sector of the corresponding investible resources, that is, it may 'crowd out' the private investment. Therefore, the net effect of public expenditure depends upon the uses to which these funds were being put by the private sector before their acquisition by the authorities, and the uses to which they are put by the authorities after their acquisition. A detailed analysis of the flow of funds and the changes therein on account of all these public policies must be made on an ongoing basis in order to achieve the best possible results.

An increase in the rate of investment undoubtedly helps in accelerating the rate of economic growth. However, all additional investment need not be in the form of direct public investment only. Public expenditure may also be used for helping private investment and production through a pursuit of policies which reduce the cost of production, or push up demand or remove particular shortages and bottlenecks. Creation and maintenance of social overheads lead to an all-round reduction in cost of production and improvement in efficiency. This, therefore, increases profitability and production. Also social overheads bring different regions and sectors of an economy in closer contact with each other and thereby stimulate the process of economic growth. Also public investment can go directly into the development of basic and key industries, power, irrigation and mines. Through these steps, the economy can add to its infrastructure and thus provide a firm basis for growth.

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Public expenditure can be used to create demand for various products, and thus stimulate private production. A policy of purchase preference in favour of domestically produced goods and services helps domestic enterprise and employment. However, it is noteworthy that international commitments such as towards WTO can come in the way of a policy of purchase preferences.

Public sector investment can be specifically directed towards creation of specified supplies and facilities, which form important and necessary inputs for other industries. Imports of essential raw materials can be arranged and special labour skills can be developed. To put it differently, public expenditure can be utilized as a means to remove numerous shortages and bottlenecks in the way of production. Public expenditure can be effectively used in reducing regional disparities also. Strategies industries can be subsidized and otherwise helped through loans, if they are established in specified regions. In the same way, a larger proportion of public expenditure on social overheads can be devoted to these areas. Education and training facilities can also be provided as a further aid in reducing regional disparities.

Research and development are important and helpful activities which must be accorded a high priority. New, effective and cheap methods of production can be found whereby local resources are used and a saving in imports and foreign exchange is affected. New products can be invented which will help the economy in its various productive activities. In these diverse ways, the economy can be helped in effecting a reallocation of its resources and in the process of economic growth.

2.4.3 Public Expenditure and Economic Growth

The foregoing discussion comprises a substantial portion of the issue of economic growth as well because, in the ultimate analysis, a sustained increase in the level of output and productive capacity is a prerequisite of economic growth. In a developed country, through economic stabilization, stimulation of investment activity and so on, public expenditure can be expected to sustain a long term growth rate. In an underdeveloped country, public expenditure has an additional task of helping in reducing regional disparities, developing social overheads, and creation of infrastructure of economic growth in the form of transport and communication facilities, education and training, growth of capital goods industries, basic and key industries, research and development and so on. An appropriate expenditure policy is also needed for stimulating saving and capital accumulation.

One way in which public expenditure is expected to affect the pace of economic growth is the will and capacity of the people to work, save and invest. However, its actual contribution largely depends upon the precise form and magnitude of public expenditure and accompanying circumstances. For example, public expenditure may itself be directed into specified investments or it may be used for guiding allocation of investible resources of the private sector. But measures relating to public expenditure alone cannot guarantee an increase in the entire economy's rate of investment. That would finally depend upon the will and capacity of the people to work, save and invest. In addition, economic growth adds to aggregate social welfare if differences between social and private marginal cost on the one hand and between social and private marginal productivity on the other are narrowed down. To this end, public expenditure may be used for a judiciously devised multi-objective system of subsidies.

It must be recognized, however, that public expenditure policy of the government constitutes only a part of its overall economic policy. Therefore, it needs to be ensured

that different components of its policy are well coordinated and do not work at cross purposes.

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2.4.4 Public Expenditure and Distribution

A significant outcome of an unregulated market mechanism is the inequalities of income and wealth which, with the institutions of private property and inheritance, widen with the passage of time. Furthermore, such income and wealth disparities not only spell a social and economic injustice, they also distort production and employment patterns.

Narrower inequalities of income and wealth, it may be claimed, contribute towards economic stability. It is generally recognized that marginal propensity to consume falls as income rises. As a result during the expansionary phase of a trade cycle, consumption demand tends to lag behind and causes a check on further expansion of demand in the economy. Without such a check, the upward movement of the trade cycle might develop into a disruptive inflation. Similarly, during a depression, consumption refuses to dip below a certain level and, as a result, the economy is provided a firm demand base. Furthermore, economic stability is helpful to economic growth because private investment is affected, amongst other things, by safety and expected rates of return. With economic stability and expectation thereof, the risk of loss is reduced and this has, therefore, a healthy effect on the investment climate.

Welfare considerations also favour an equitable distribution of income and wealth. The purpose of an economic policy should be to contribute towards maximizing aggregate social benefits. Though we cannot prove objectively that marginal utility of income falls as income increases, common sense supports this hypothesis. That being so, it follows that any movement towards equitable distribution of income and wealth would increase the aggregate satisfaction in the community. Lerner has shown that even if we do not know the extent to which marginal utility of income falls with a rise in income and even if we cannot have inter-personal comparisons of utility, still a shift towards equality would probably add to the aggregate satisfaction of the community.

Public expenditure policy may be formulated for improving distributive justice with special emphasis on components meant to help the poorer sections of the society. A number of welfare measures like free education, health, drinking water and other facilities can be accorded a high priority. Numerous social security schemes can be adopted whereby people are entitled to old-age pensions, unemployment relief, sickness allowance and so on. Articles of common consumption like food can be subsidized, and the production of those which are in short supply can be taken up in the public sector. Left to market mechanism, the supply of 'merit goods' is likely to be insufficient. Public expenditure, through direct purchases, public production or subsidies can ensure that their supply is augmented to the desired extent. Similarly public expenditure, through appropriate subsidies and other 'purchase and stores' policy can encourage labour-intensive techniques of production which reduce unemployment and improve income distribution.

However, while proceeding with the programme of bringing about income and wealth equalities, certain aspects of possible interaction between distributive justice and other dimensions of the economy must be kept in mind. To begin with, poorer people may not be able to enjoy fully the additional income because of ignorance. But this argument is applicable only if suddenly large amounts of income start flowing to the poorer sections of the community. In an underdeveloped country, this argument does not apply because it normally lacks adequate funds to significantly improve the lot of everyone. Through income redistribution, the poor masses can only feel a marginal relief. Even in

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the case of adequate funds, the desirability of reducing inequalities would not be disproved. It would only point towards the need for going slow, so that the poorer sections also get accustomed to higher standards of living.

The impact of redistribution on the economy's will and capacity to work, save and invest is inconclusive. In a poor country, where the need to reduce inequalities is the greatest, saving potential is only with the higher income groups. With a big shift towards equalities, such a saving potential is substantially reduced especially because the poorer sections of the community are bound to consume away a major portion of their newly acquired incomes. The objective of economic equality, therefore, comes into conflict with that of economic growth. In other words, both will and capacity to save on the part of the members of the society are likely to suffer when a shift towards income and wealth equalities is made. An underdeveloped country, therefore, is faced with a difficult choice.

The distributive effects of public expenditure must be viewed in the context of its method of financing. For example, if it is financed through additional tax revenue and the tax system of the country is regressive, it would militate against the distributive effects of public expenditure. Similarly, if public expenditure is financed through deficit financing, or through such borrowings as are inflationary in character, inequalities would widen. However, deficit financing to a limited extent need not generate inflationary pressures. Similarly, public borrowings out of genuine savings of the economy are expected to be only mildly inflationary. While the long-term solution of its economic difficulties lies only in economic growth, the problems of income distribution also cannot be postponed indefinitely. A via media, therefore, has to be worked out wherein both these objectives are pursued concurrently in a balanced manner. And to the extent the hitherto unexploited resources can be tapped, or if foreign aid is available, the task of pursuing both the goals (of equitable distribution and growth) becomes less difficult.

Check Your Progress

7. Why did free enterprise economies experience stronger trade cycles with the development of capitalism?
8. Why is there a shortage of social overheads, skilled labour, capital equipment and machinery in undeveloped countries?
9. What is the additional functional or role played by public expenditure in an underdeveloped country?
10. How can public expenditure encourage labour-intensive techniques of production?

2.5 SUMMARY

In this unit, you have learnt that:

- The origin of macroeconomic theory can be traced to the writings of the mercantilists and the physiocrats well before the development of the classical macroeconomic theory.
- The classicists had their own views on the theory of general price level distinguished from the theory of relative prices. In classical economics, the quantity theory of money, theory of economic growth and discussion about the cyclical fluctuations—topics which are important in modern macroeconomic theory—occupied significant place.
- The bulk of the traditional economic theory until the publication of Keynes' great work entitled *The General Theory of Employment, Interest and Money* published in 1936 was microeconomics.
- Led by Alfred Marshall, the neoclassical economists implicitly made the conclusions derived from the Say's Law of Markets a premise of their analysis of value and distribution.
- Alfred Marshall's chief concern was with the explanation of determination of the commodity and factor prices, nevertheless he also discussed the relationship

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between the general price level (P), the total quantity of money in circulation (M), the fraction of their total money income which people hold in the form of cash balances (k) and the amount of total real output (O).

- Keynesian macroeconomics (also called the new economics) refers to that body of economic theory whose base is Keynes' book *The General Theory.* The most distinguishing feature of the Keynesian macroeconomics is its neat exposition of how an economy may be in equilibrium at less than full employment level.
- The most important contribution of Keynes' *The General Theory* to the development of macroeconomic theory is the clear and specific formulation of the consumption function.
- Keynes' contribution to the development of macroeconomic theory is essentially an introduction to the Keynesian analysis of income and employment emerging from Keynes' great work entitled *The General Theory of Employment, Interest and Money* published in 1936.
- Adolph Wagner (1835–1917), a German economist, derived his famous *Law of Increasing State Activities* primarily from historical facts of Germany.
- Wagner claimed that every government (whether national or sub-national) has an inherent tendency to expand its activities (and therefore, public expenditure), both intensively and extensively, such that the government sector tends to grow faster than the economy as a whole.
- Wagner's Law was more of an empirical investigation than a theoretical one. It did not reveal the inner compulsions under which a government has to increase its activities and public expenditure as time passes.
- Modern societies are becoming increasingly complex and demanding on various counts. They are facing ever new problems which need to be tackled by the State including hitherto insufficiently acknowledged market failures.
- Rent is an excess of the earnings of the owner of a resource over its opportunity cost. Anne Krueger introduced this term in 1974.
- The concept of X-inefficiency was introduced by Harvey Leibenstein in 1966. This term refers to an inefficient use of productive resources. It is the difference between efficient behaviour of a firm assumed by or implied by economic theory and its observed behaviour.
- Baumol's cost disease is also known as Baumol's Disease, and Baumol's Effect, was introduced by William J. Baumol and William G. Bowen in 1960s. It refers to the phenomenon of wage incomes being higher than the productivity of the wage earners.
- Buchanan and Tullock, in the context of US experience, have viewed Wagner's theory in terms of increasing discrepancy between growth of government expenditure and government output and termed the phenomenon as 'Wagner Squared'.
- We may add that modern governments have found new weapons whereby to increase their expenditure even without collecting more taxes. They now own public undertakings which can be a source of revenue to them. But more important than that is their capacity and willingness to resort to deficit financing.
- It is a well-known fact that the market forces by themselves leave much to be desired in the field of economic results. The more advanced and free the market

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mechanism, the more prone is the economy to fluctuations in income, employment, and prices.

- It must be remembered that the use of public expenditure as an anti-cyclical weapon implies the existence of a well-knit and sensitive market mechanism where, through the free working of the input-output relationships between different industries, any change starting in one industry spreads to the rest of the economy.
- Public expenditure can help the economy in numerous ways in attaining higher levels of production and growth. The ways in which such effects might be brought about are obviously interrelated.
- Underdeveloped economies are characterized by a low level of saving and investment activity. This deficiency, again, may be remedied by stimulating private saving and investment, or through direct public saving and investment, or both. Thus, in underdeveloped countries, there is a shortage of social overheads, skilled labour, capital equipment and machinery.
- One way in which public expenditure is expected to affect the pace of economic growth is the will and capacity of the people to work, save and invest. However, its actual contribution largely depends upon the precise form and magnitude of public expenditure and accompanying circumstances.
- A significant outcome of an unregulated market mechanism is the inequalities of income and wealth which, with the institutions of private property and inheritance, widen with the passage of time. Furthermore, such income and wealth disparities not only spell a social and economic injustice, they also distort production and employment patterns.
- Public expenditure policy may be formulated for improving distributive justice which special emphasis on components meant to help the poorer sections of the society. A number of welfare measures like free education, health, drinking water and other facilities can be accorded a high priority.
- Public expenditure through appropriate subsidies and other 'purchase and stores' policy can encourage labour-intensive techniques of production which reduce unemployment and improve income distribution.
- The impact of redistribution on the economy's will and capacity to work, save and invest is inconclusive. In a poor country, where the need to reduce inequalities is the greatest, saving potential is only with the higher income groups.
- The distributive effects of public expenditure must be viewed in the context of its method of financing. For example, if it is financed through additional tax revenue and the tax system of the country is regressive, it would militate against the distributive effects of public expenditure. Similarly, if public expenditure is financed through deficit financing, or through such borrowings as are inflationary in character, inequalities would widen.

2.6 KEY TERMS

- **Rent:** It is an excess of the earnings of the owner of a resource over its opportunity cost.
- **Compensatory finance:** They are the variation in aggregate public expenditure for counteracting mismatch between aggregate demand and supply flows in the economy.
- **Deficit financing:** It refers to incurring public expenditure in excess of revenue receipts.
- **Gestation period:** It is the time period between the start of an investment project and the start of production flow from it.
- **Marginal efficiency of capital:** It is the estimated rate of return in future on fresh investment.
- **Purchase preferences:** It is a policy of preferring some specific sources of supply over others either by confining to such sources or agreeing to pay a higher price.

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2.7 ANSWERS TO 'CHECK YOUR PROGRESS'

1. In classical economics, the quantity theory of money, theory of economic growth and discussion about the cyclical fluctuations—topics which are important in modern macroeconomic theory—occupied significant place.
2. Alfred Marshall's chief concern was with the explanation of determination of the commodity and factor prices, nevertheless he also discussed the relationship between the general price level (P), the total quantity of money in circulation (M), the fraction of their total money income which people hold in the form of cash balances (k) and the amount of total real output (O).
3. Keynesian macroeconomics (also called the new economics) refers to that body of economic theory whose base is Keynes' book *The General Theory.*
4. Adolph Wagner (1835–1917), a German economist, derived his famous *Law of Increasing State Activities* primarily from historical facts of Germany.
5. Rent is an excess of the earnings of the owner of a resource over its opportunity cost. Anne Krueger introduced this term in 1974.
6. The major limitation of Wagner Squared hypothesis is that output of public servants cannot be measured with any degree of accuracy.
7. The more advanced and free the market mechanism, the more prone is the economy to fluctuations in income, employment, and prices. It is for this reason that with the development of capitalism, free enterprise economies came to experience ever stronger trade cycles.
8. Underdeveloped economies are characterized by a low level of saving and investment activity. This deficiency, again, may be remedied by stimulating private saving and investment, or through direct public saving and investment, or both. Thus, in underdeveloped countries, there is a shortage of social overheads, skilled labour, capital equipment and machinery.
9. In an underdeveloped country, public expenditure has an additional task of helping in reducing regional disparities, developing social overheads, and creation of infrastructure of economic growth in the form of transport and communication facilities, education and training, growth of capital goods industries, basic and key industries, research and development and so on.
10. Public expenditure through appropriate subsidies and other 'purchase and stores' policy can encourage labour-intensive techniques of production which reduce unemployment and improve income distribution.

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2.8 QUESTIONS AND EXERCISES

Short-Answer Questions

1. State the difference between classical and neoclassical economic theory.
2. State Alfred Marshall's contribution on neoclassical economics.
3. How did Keynes contribute towards the development of macroeconomic theory?
4. Why is Wagner's Law more of an empirical investigation than a theoretical one?
5. Who introduce the concept of X-inefficiency? What does the term mean?
6. Write short notes on:
   (i) Rent and DUP
   (ii) X-inefficiency
   (iii) Baumol's Cost Disease
7. What is the Wagner Squared hypothesis? Who termed this phenomenon?
8. To what extent can public expenditure (including subsidies) address the question of (a) distributive inequalities, and (b) regional disparities?

Long-Answer Questions

1. Describe the classical and neoclassical views on public expenditure.
2. Assess the Keynesian economic theory and Keynes contribution towards the study of economics.
3. What do you understand by Wagner's Law of increasing state activities? What are its main determinants? Is it possible to extrapolate growth in public expenditure? Give reasons for your answer.
4. Critically analyse the effects of public expenditure.
5. 'Public expenditure as a general weapon against economic instability has only a limited use; a very detailed expenditure programme has to be worked out to ensure matching of subdivisions of demand and supply flows; even then public expenditure alone may not be adequate to tackle this problem.' Examine this statement.
6. Public expenditure is a very helpful policy tool in accelerating rate of economic growth, but it is an imperfect one. Elaborate the positive role of public expenditure and the deficiencies from which it suffers.
7. Highlight prominent reasons for the phenomenon of all pervasive but non-quantifiable effects of public expenditure.
8. Write short and lucid notes on the following:
   (i) Use of public expenditure in promoting economic stability and thus economic growth.
   (ii) Unpredictable impact of public expenditure on the will and capacity to work, save and invest by the public.

2.9 FURTHER READING

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Endnotes

1 The term 'classical economies' does not refer to the economic thought of any one writer It has to be distilled from the writings of many writers. Karl Marx first used the term 'classical economies' to denote the economic thought of the writers starting from William Petty and ending with David Ricardo and James Stuart Mill in England and from Pierre Boisguilbert to Jean Charles Leonard de Sismondi (1773–1842) in France. According to him, classical economics 'investigated the real relations of production in bourgeois society.' According to John Maynard Keynes, however, by classical economics is meant the economic thought of David Ricardo and his followers, that is to say, the economic thought of those economists who adopted and perfected the theory of Ricardian economics, including (for example) John Stuart Mill, Alfred Marshall, Francis Ysidro Edgeworth and Arthur Cecil Pigou.

2 Distinction should be made between the 'Economics of John Maynard Keynes' and the 'Keynesian Economics'. While the former refers to the economics exclusively contained in Keynes' book *The General Theory of Employment. Interest and Money,* the latter refers to the economic theory built up on the foundation of *The General Theory.* Consequently, the Keynesian economics refers to the massive structure of economic analysis constructed by the Keynesians following the lead given by John Maynard Keynes. Economists of the eminence of Alvin H Hansen, Abba P Lerner, Paul A. Samuelson, Seymour E Harris, Lawrence R Klein and Dudley Dillard, to mention only a few, have enriched the Keynesian economics by their penetrating analytical contributions.

3 See Chapters 8, 9 and 10 of *The General Theory.*

4 Alvin H Hansen, 'The General Theory,' published in Seymour E Harris (ed.), *The New Economics,* 1947. p. 135.

5 Adolph Wagner, *Finanzwissenschaft,* Leipzig, 3rd ed., part 1, p. 16.

UNIT 3 MAJOR THEORIES OF PUBLIC EXPENDITURE

Structure

3.0 Introduction
3.1 Unit Objectives
3.2 Voluntary Exchange Principle and Lindahl's Model
  3.2.1 Criticism of Lindahl's Model
  3.2.2 Mathematical Representation of Lindahl's Model
3.3 Samuelson's Model of Public Goods
3.4 Musgrave's Optimum Budget Model
3.5 Paradox of Voting
3.6 Summary
3.7 Key Terms
3.8 Answers to 'Check Your Progress'
3.9 Questions and Exercises
3.10 Further Reading

3.0 INTRODUCTION

Historically, public expenditure has recorded a continuous increase over time in almost every country. However, traditional thinking and philosophy did not favour this trend because it rated market mechanism as a better guide for the working of the economy and allocation of its resources. It was argued that each economic unit was the best judge of its own economic interests and the government should not take decisions on behalf of others. Furthermore, while a private economic unit was guided by its own economic interests, the public sector had no such criterion. Accordingly, its efficiency was bound to be very low. Had this philosophy been practised in its entirety, public expenditure would not have grown as rapidly as it actually did. In reality, however, a free market mechanism suffers from several deficiencies and generates several harmful socio-economic effects. A modern state is not expected to be indifferent to these ill-effects. On the theoretical side, this fact has been the source of several versions of socialist and welfare philosophy.

In case of a market economy, voluntary exchange is discussed as being something we willingly sacrifice to get something else, and this is in totality a human trait and is fully desirable. In 1919, Erik Lindahl put forth a rigorous and formal model of the benefits received from the voluntary exchange theory of public finance. Lindahl uses the example of two tax payers to explain the problem. In this unit, you will get acquainted with the concept of voluntary exchange and the various theories associated with public expenditure.

3.1 UNIT OBJECTIVES

After going through this unit, you will be able to:

- Discuss the voluntary exchange principle with regard to market transactions
- Describe Lindahl's model of voluntary excahnge

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- Evaluate Samuelson's model of public goods
- Analyse Musgrave's optimum budget model
- Explain the paradox of voting as observed by Anthony Downs

3.2 VOLUNTARY EXCHANGE PRINCIPLE AND LINDAHL'S MODEL

The term voluntary exchange refers to the act of sellers and buyers willingly and freely participating in market transactions. Furthermore, the transactions take place in such a manner that leaves the seller and the buyer in a better position after the exchange than they were prior to the exchange.

In case of a market economy, voluntary exchange is discussed as being something we willingly sacrifice to get something else, and this is in totality a human trait and is fully desirable. Only when both parties are satisfied enough to willingly say 'thank you' can it be considered—for the voluntary exchange—to have been pleasing and beneficial for both parties. The exchange need not always be represented by money, it can be a service, or other meaningful transaction which fulfils both the parties' self-interest.

In neoclassical economics, **voluntary exchange** is a very fundamental assumption. In other words, in theorizing about the world, the neoclassical (mainstream) economists make the assumption that there is a presence of voluntary exchange. Further developing upon this assumption, the mainstream economists conclude that it has a huge range of significant results, such as under voluntary exchange there is efficiency of market activity, net positive effects of free trade, and that markets where there is voluntary participation of economic agents are better off. The fact to be noted here is that while making the assumption of voluntary exchange, the mainstream economists have, through their definition, removed the possibility of finding any kind of exploitation. Exploitation was simply an assumption made by the Marxist economists, who were one of the prominent substitutes to neoclassical economists. In this light, we can say that broadly, economics is incapable of objectively testing if exploitation of one party or group by another party really exists. It is argued that, possibly this is one of the major failures of economics.

It has been proved by mainstream economists that voluntary exchanges will be better attracted by economic efficiency rather than by government mandated exchanges. Conversely, there are no theoretical bases for the argument that partially or completely involuntary exchanges are preferable to other arrangements, like government mandates.

There are times when voluntary exchange becomes the very basis for the arguments pertaining to the morality of markets. Libertarians generally opine that there should be both— morality and efficiency—in voluntary exchange for there to exist an argument against government mandates, including many forms of taxation. In markets, morality is in dispute, even in such markets that rarely adhere to true voluntary exchange.

In 1919, Erik Lindahl put forth a rigorous and formal model of the benefits received from the voluntary exchange theory of public finance. Lindahl uses the example of two tax payers to explain the problem. In this model, both the tax payers have the liberty to put forward their preference for the state service that they would like to receive for the tax liability that falls on them. To put it differently, it will be a sort of voluntary exchange taking place between the tax being paid by the tax payers and the state services that

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they get in return that is decided, based on the demand schedule or the preference that the tax payer had for the services being provided by the state.

In this proposal, Lindahl has paid no attention to the existing socio-political issue of equitable distribution of income. He has instead, attempted to resolve three problems that though interrelated are by nature fiscal problems. Following are the three problems he took up:

- Determining the total amount of public expenditure and taxes
- Allocation of all the services and goods of the total public expenditure that contribute to the satisfaction of social want
- Allocation of the burden of tax amongst the tax payers

Since all of these decisions are mutually interdependent, hence the decision for them should be taken jointly.

It was suggested by Lindahl that the solution to the problem was much like the process of pricing that exists in the market for joint products. In a market, the pricing of joint products is never based on the cost imputation but is based on the demand existing in the market for the two joint products.

Given below are the five assumptions on which Lindahl has based his model of voluntary exchange.

- The setup of the state is democratic.
- Only a single type of social good is produced.
- Just two tax payers exist and they are referred to as A and B.
- Jointly, the contribution of the two tax payers is sufficient to cover the total cost of the social goods that are supplied.
- The social good is subject to the condition of constant cost.

Based on the above assumptions, Lindahl has shown the simultaneous determination of tax sharing as well as the extent of the provision of the social goods to the two individuals who are the tax payers.

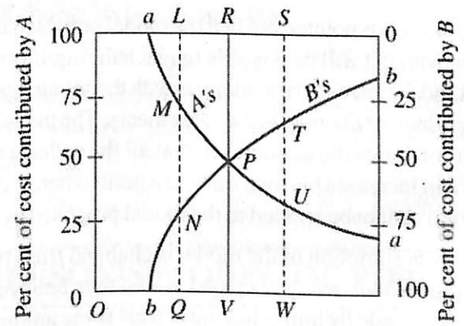


Fig. 3.1 Lindahl's Model of Social Goods

In Figure 3.1, the demand curve *bb* represents the demand that *B* has for social goods and the demand curve *aa* represents the demand that *A* has for social goods. These curves are representative of the extent of contribution, in percentage, that the two tax payers and the consumers are ready to make for the cost that is incurred in creating a

range of output of a social good. There is a diminishing of social good's marginal utility. Therefore, if a social good's OQ is given, there will be a willingness of A to meet the QM percentage (approximately seventy five per cent) while there will be a willingness from B to share LN percentage (also approximately seventy five per cent). If this is the case, the total collection of tax will surpass the cost of production since the two tax payers are jointly ready to contribute as high as one hundred and fifty per cent of the total cost. Suppose that there needs to be a decrease in the tax so that it will only add up to the real cost of making QA amount of social goods available, A as well as B will want a bigger amount of the social good. Finally, as this process repeats, there will be a point of equilibrium reached and this is represented in the above figure as P. At point P, the quantity of social good is OV. When the quantity of social good stands at OV, the two consumers are willing to jointly pay a hundred per cent of the total cost of the supply of social good. The optimum solution is the equilibrium that is attained at P, when a correct state of distribution is achieved.

The above figure represents that the correct interaction between the demand curve *aa* and the demand curve *bb* helps obtain OV which is the optimum amount of social good. PR and PV represent the cost's percentage share that is needed to be paid by B and A respectively as their optimum tax liability for the enjoyment of the social good benefit and is exactly equal to the benefit that they enjoy.

From the above figure, it is quite clear that for any amount which it above the OV limit and the combined share that both A and B bear willingly will not be equal to hundred per cent but will be less. If OW is provided, then the willingness to contribute of the two tax payers is represented by WU and ST and is not as much as hundred per cent of the total cost but is less by TU. Therefore, the government cannot supply the amount. So, via the trial and error method, it will be possible to reach OV which is the equilibrium amount.

3.2.1 Criticism of Lindahl's Model

Despite all that provided by Lindahl in his model, there has been quite a lot of criticism of the model. Of all his critics, it is Musgrave who has several major points of criticism against what he has proposed. Let us look at his points of criticism one by one.

Foremost, Musgrave has pointed out that the model proposed by Lindahl does not provide the manner in which it will be possible to reach the equilibrium at point P. The solution provided by Lindahl seems to be analogous with the solution provided by Antoine Augustin Cournot regarding the duopoly in the value theory. The model of duopoly pricing as suggested by Cournot, holds the assumption that all the sellers take the price of the rival to be a constant and increases his own sales to a point where a competitive supply is attained. This solution cannot be applied to the model proposed by Lindahl.

Then again, if the assumption of the model is changed from two consumers and tax payers to several individuals, every tax payer would then believe that the share that he has or the contribution made by him is having at least some amount of impact on the social good's actual supply. So, there is a possibility that he will keep his preference to himself and not reveal them. It is a known fact that in the minds of the people the provision of social good and taxation seem to be divorced issues.

The model presented by Lindahl does not account for the effect on the prices of the social goods when the output of the social goods is varied. The model works with the cost conditions remaining constant. Such an assumption is not realistic.

Another criticism of the model suggests that in real life there is hardly any chance that individual tax payers possess of having a preference while paying their taxes. On their behalf, it is the legislative or the executive authority that actually expresses the preference of the individual tax payer. A system such as this will definitely be one that is imperfect.

Further, the theory put forth by Lindahl works on the assumption that an optimum level has already been attained for the distribution of income. This assumption's non-validity is indicative of the fact that from each individual tax payer's demand curve, the society's preferences and needs cannot be represented.

Also, Lindahl's model has its basis on the assumption that it is only a type of taxation that finances the activities of the State. This financing cannot be done by other means like public borrowing and employing a printing press.

As was mentioned earlier, in the model suggested by Lindahl, there is a lot of incentive that individuals have—of hiding the truth about their preferences for public goods from the government official administrating the scheme. If it is not possible for even a single individual to be deprived of the enjoyment of any public good after it has been produced, then individuals will try to contribute the least for the production of the public goods so that they have as much as possible to spend on private goods. There might be some extreme cases where individuals will claim that they have not demanded for public goods and use all of their budget on private good's purchase. Such a strategy is referred to as 'taking a free ride'. In case everyone wants to take a free ride, then the society will not be in a position to make any public goods available.

3.2.2 Mathematical Representation of Lindahl's Model

The assumption is that there are two goods in an economy: The first is a 'public good', and the second is 'everything else'. The price of the public good is represented by P_{public} and that of everything else by P_{else}.

$$\alpha * P_{(public)}/P_{(else)} = MRS_{(persona1)}$$

This is just the usual price ratio/marginal rate of substitution deal, the only change is that we multiply P_{public} by α to allow for the price adjustment to the public good. Similarly, a second person will choose his bundle such that:

$$(1\text{-}a) * P_{(public)}/P_{(else)} = MRS_{(person2)}$$

With this, there is both individuals' utility maximizing. It is known that for a competitive equilibrium, the price ratio or the marginal cost ratio has to be equal to the marginal rate of transformation, or

$$MC_{(public)}/MC_{(else)} = [P_{(public)}/P_{(else)}] = MRT$$

3.3 SAMUELSON'S MODEL OF PUBLIC GOODS

Paul Samuelson's first landmark paper was published in the year 1954. It was entitled 'The Pure Theory of Public Expenditure'. It was this paper that actually formalized the public goods concept which he referred to as 'collective consumption goods'. These are such goods which are non-rivalrous and non-excludable. The market failure of free-riding was highlighted by Samuelson with the following words: 'it is in the selfish interest of each person to give false signals, to pretend to have less interest in a given collective consumption activity than he really has.' His paper showed that 'no decentralized pricing system can serve to determine optimally these levels of collective consumption'.

Check Your Progress

1. How is voluntary exchange discussed in case of a market economy?
2. When and who put forth a rigorous and formal model of the benefits received from the voluntary exchange theory?
3. State one criticism of Lindahl's model.

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Here are some points that one needs to understand:

A good is called a pure public good if each individual's consumption of such a good leads to no subtraction from any other individual's consumption. This is commonly referred to as non-rivalry in use. The other property of pure public good is non-excludability, that is, it is infeasible to price units of a good in a way that prevents those who do not pay from enjoying its benefits. National defense and lighthouse are probably the classical examples of pure public good. Public goods in general can vary in the extent of rivalriness and excludability.

The Samuelson condition, authored by Paul Samuelson, in the theory of public goods in economics, is a condition for the efficient provision of public goods. When satisfied, the Samuelson condition implies that further substituting private for public goods (or vice versa) would result in a decrease of social utility.

For an economy with n consumers the conditions reads as follows:

$$\sum_{i=1}^{n} MRS_i = MRT$$

MRS_i is individual i's marginal rate of substitution and MRT is the economy's marginal rate of transformation between the public good and an arbitrarily chosen private good.

If the private good is a numeraire good then the Samuelson condition can be re-written as:

$$\sum_{i=1}^{n} MB_i = MC$$

where MB_i is the marginal benefit to each person of consuming one more unit of the public good, and MC is the marginal cost of providing that good. In other words, the public good should be provided as long as the overall benefits to consumers from that good are at least as great as the cost of providing it. (Remember that public goods are non-rival, so can be enjoyed by many consumers simultaneously).

When written this way, the Samuelson condition has a simple graphic interpretation. Each individual consumer's marginal benefit, MB_i, represents his or her demand for the public good, or willingness to pay. The sum of the marginal benefits represent the aggregate willingness to pay or aggregate demand. The marginal cost is, under competitive market conditions, the supply for public goods.

Hence the Samuelson condition can be thought of as a generalization of supply and demand concepts from private to public goods.

Samuelson's Model

We will consider the simplest case with a single private good and a single public good.

n consumers, indexed by $i = 1, ..., n$

x_i : agent i's consumption of private good and denote $x = (x_1, ..., x_n)$ as the vector of private consumption.

G: the (common) consumption of public good

Agent i's preference described by the utility function $u_i(x_i, G)$ which is differentiable and increasing in both arguments, quasi-concave and satisfies Inada Condition;

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w_i : agent i's endowment of private good and $w = \sum_{i=1}^{n} w_i$ is the total endowment of private good; and public good endowment is taken to be zero.

Public good may be produced from the private good according to a production function $f: R+ \rightarrow R+$ where $f_0 > 0$ and $f_0 0 < 0$. That is, if z is the total units of private goods that are used as inputs to produce the public good, the level of public good produced will be $G = f(z)$.

The Samuelson condition, if it is written in the way given above, can be easily represented graphically as shown below.

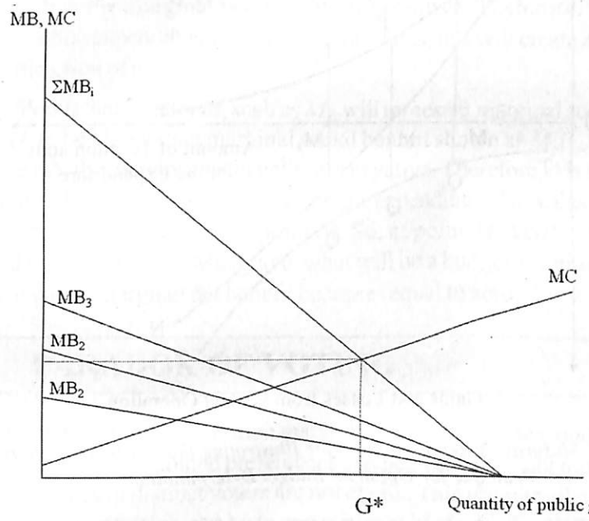


Fig. 3.2 Supply and Demand Interpretation of Samuelson Condition

Source: *https://commons.wikimedia.org/wiki/File:Samuelson_condition.png#/media/File:Samuelson_condition.png*

The marginal benefit of every individual consumer is represented by MB_i, and it shows the demand or willingness to pay the marginal benefit that that specific individual has. The total of the marginal benefits is the aggregate willingness that all individuals together have to pay and represents the aggregate demand of all the individuals. If a market is competitive, then the marginal cost represents the supply for public goods.

In this light, it is possible to view the Samuelson condition as being a generalization of concepts of demand and supply from private goods to public ones.

3.4 MUSGRAVE'S OPTIMUM BUDGET MODEL

According to Richard Musgrave, the 'Maximum Social Advantage' principle of Dalton is the 'Maximum Welfare Principle of Budget Determination'.

According to Musgrave, there were two budget policies that had been proposed by Dalton. In one budget policy, he proposed that resources need to be distributed in different directions so that it will equalize the marginal return of satisfaction that accrues for all the various types of expenditure that is made. The other budget policy proposes

Check Your Progress

4. Name the paper that formalized the public goods concept of Paul Samuelson.
5. When can a good be called a pure public good?

that it is essential to push the public expenditure to such an extent that the satisfaction that accrues even from the last rupee spent will be equal to the satisfaction which was lost due to the last rupee taken away in the form of tax. Hence, it is important to determine the size of the budget such that it will lead to the society's maximum welfare.

The figure given below is the representation as provided by Musgrave for illustrating the maximum welfare principle for optimum budget determination.

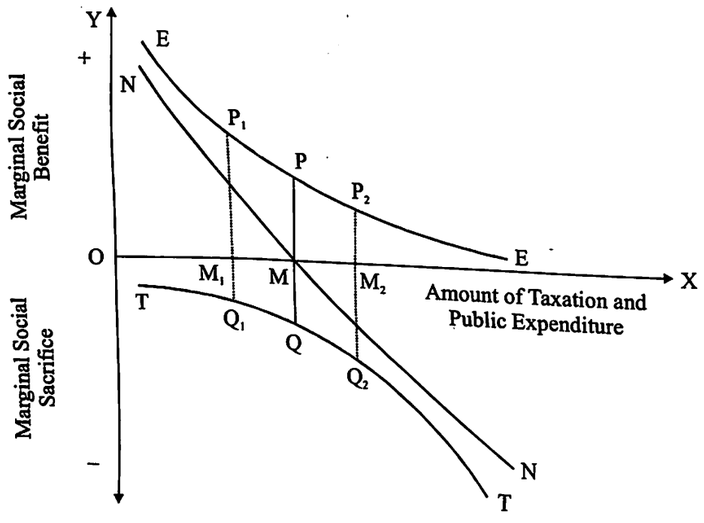


Fig. 3.3 Musgrave's Representation for Illustrating the Maximum Welfare Principle for Optimum Budget Determination

In the figure given above, the X-axis represents the 'Amount of Taxation and Public Expenditure', and the Y-axis represents the 'Marginal Social Benefit' (MSB) which is measured in the upward direction and the 'Marginal Social Sacrifice' (MSS) which is measured in the downward direction.

The *EE* curve represents the marginal social benefit that accrues from the successive units of public expenditure that are optimally allocated amongst the various public uses. This curve has a downward slope from left to right since social benefits provide diminishing marginal utility.

the *TT* curve represents the marginal social sacrifice made with each successive unit of taxation that is imposed on the tax payers. It curves upwards from left to right because of the increasing marginal disutility or social sacrifice.

The *NN* curve is used to measure the net benefit obtained from each successive addition made to the public budget in the form of public expenditure as well as taxation. This is obtained by subtracting *TT* from *EE*.

It is at *OM* that the 'Optimum Size of Budget' is deduced. This is the point at which the nil marginal net benefits are obtained. Therefore, both the public expenditure and the amount of taxes must be fixed by the government such that it all equals to *OM*. The point *M* represents the point at which the maximum-sacrifice approach to the determination of taxes is matched by maximum-benefit approach to the allocation of

public expenditure. These two specific aspects are brought together in a general theory of budget planning.

It is at point *M* that the optimum size of the budget will be arrived at, since at this point the marginal social benefit which is represented by *MP* is the same as the marginal social sacrifice which is represented by *MQ*. So, *MSB* = *MSS*. Since *MSB* and *MSS* are measured in opposite directions, the marginal net benefit will become nil. In other words: *MSB* – *MSS* = 0. This is the reason why it is at point *M* that the *NN* curve is seen to be cutting the X-axis.

Points that lie before *M*, such as M_1 will represent marginal social benefit shown as M_1P_1 to be higher than marginal social sacrifice shown as M_1Q_1, and in this region we will see that the marginal net benefits are positive. Therefore, it is sensible to raise both—public expenditure and the taxation. Thus, this will create a tendency to advance in the direction of point *M*.

Points that lie after *M*, such as M_2, will represent marginal social sacrifice depicted as M_2Q_2 to be higher than marginal social benefit shown as M_2P_2, and in this region we will see that the marginal net benefits are negative. Therefore, it is sensible to reduce the taxation and consequently also reduce public expenditure. Thus, this will create a tendency to advance in the direction of point *M*. So, at point *M*, *MSB* = *MSS*. In this light, as opined by Richard Abel Musgrave, what will be a budget's optimum size stands at the point at which marginal net benefit becomes equal to zero.

3.5 PARADOX OF VOTING

The voting paradox is a condition marked by the Marquis de Condorcet in the late 18th century, in which combined preferences can be cyclic (i.e., not transitive), even though the preferences of distinct voters are not cyclic. This is contradictory, because it states that mainstream wishes can be in opposition with each other. When this happens, it is because the contradicting majorities are each made up of diverse clusters of individuals. This is also called as Condorcet's paradox or the paradox of voting.

As the physical method of voting is troublesome and each vote generally matters very little, the sensible person should not vote. Yet a large number of people vote. The paradox arises if one studies voters and other political players in the same technique as one would study sensible economic players.

Example: Let us assume that we have three candidates, x, y, and z, and that there are three voters with preferences as follows (candidates being listed left-to-right for each voter in decreasing order of preference):

Voter	First Preference	Second preference	Third Preference
Voter1	x	y	z
Voter2	y	z	x
Voter3	z	x	y

If z is selected as the winner, it can be argued that y should succeed in its place, since two voters (1 and 2) prefer y to z and simply one voter (3) prefers z to y. However, by the same argument x is preferred to y, and z is preferred to x, by a margin of two to one on each occasion. Thus the society's preferences show cycling: x is preferred over

Check Your Progress

6. Fill in the blanks with appropriate terms.

(i) According to Richard Musgrave, the 'Maximum Social Advantage' principle of Dalton is the _____.

(ii) It is important to determine the size of the budget such that it will lead to the society's _____.

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y which is preferred over z which is preferred over x. The paradoxical feature of relations between the voters' favourites defined above is that although most of the voters approve that x is desirable to y, y to z, and z to x, all three rank correlations coefficients amongst the voters' preferences are negative (namely, –.5), as evaluated with Spearman's rank correlation coefficient method calculated by Charles Spearman much later.

Necessary condition for the paradox

Let us assume that A is the portion of voters who prefer x over y and that B is the fraction of voters who prefer y over z. It has been explained that the portion C of voters who prefer x over z is always at least (A + B – 1). Since the paradox (a majority preferring z over x) requires A < 1/2, an essential condition for the paradox is that A + B –1 \leq C < 1/2 \quad \text{and hence} \quad A+B < 3/2.

Implications

When a Condorcet method is used to govern an election, the voting paradox of recurrent societal preferences indicates that the election has no Condorcet champion: no candidate who can win a one-on-one election in contradiction of each other candidate. The numerous alternatives of the Condorcet method vary on how they determine and solve such ambiguities when they arise to regulate a winner. Note that there is no reasonable and deterministic firmness to the slight example given earlier because each candidate is in a closely balanced condition.

One substantial effect of the probable existence of the voting paradox in an applied situation is that in a two-stage voting procedure, the ultimate winner may depend on the way the two stages are designed. For example, suppose the winner of P versus Q in the open primary contest for one party's leadership, they will then face the second party's leader, R, in the general election. In the earlier example, P would defeat Q for the first party's nomination, and then would lose to R in the general election. But if Q were in the second party instead of the first, he would defeat R for that party's nomination, and then would lose to P in the general election. Thus the structure of the two stages makes a difference for whether P or R is the ultimate winner.

Similarly, the arrangement of a sequence of votes in an administration can be deployed by the person arranging the votes, to ensure his chosen consequence.

3.6 SUMMARY

In this unit, you have learnt that:

- The term voluntary exchange refers to the act of sellers and buyers willingly and freely participating in market transactions.
- In case of a market economy, voluntary exchange is discussed as being something we willingly sacrifice to get something else, and this is in totality a human trait and is fully desirable.
- In neoclassical economics, voluntary exchange is a very fundamental assumption. In other words, in theorizing about the world, the neoclassical (mainstream) economists make the assumption that there is a presence of voluntary exchange.

Check Your Progress

7. Define the paradox of voting.
8. Why is the paradox considered contradictory?

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- Exploitation was simply an assumption made by the Marxist economists, who were one of the prominent substitutes to neoclassical economists. In this light, we can say that broadly, economics is incapable of objectively testing if exploitation of one party or group by another party really exists. It is argued that, possibly this is one of the major failures of economics.
- In 1919, the Swedish Erik Lindahl put forth a rigorous and formal model of the benefits received from the voluntary exchange theory of public finance. Lindahl uses the example of two tax payers to explain the problem.
- In his proposal, Lindahl has paid no attention to the existing socio-political issue of equitable distribution of income. He has instead, attempted to resolve three problems that though interrelated are by nature fiscal problems.
- Despite all that provided by Lindahl in his model, there has been quite a lot of criticism of the model. Of all his critics, it is Musgrave who has several major points of criticism against what he has proposed.
- Foremost, Musgrave has pointed out that the model proposed by Lindahl does not provide the manner in which it will be possible to reach the equilibrium at point *P*. The solution provided by Lindahl seems to be analogous with the solution provided by Antoine Augustin Cournot regarding the duopoly in the value theory.
- The model presented by Lindahl does not account for the effect on the prices of the social goods when the output of the social goods is varied. The model works with the cost conditions remaining constant. Such an assumption is not realistic.
- The theory put forth by Lindahl works on the assumption that an optimum level has already been attained for the distribution of income. This assumption's non-validity is indicative of the fact that from each individual tax payer's demand curve, the society's preferences and needs cannot be represented.
- Paul Samuelson's first landmark paper was published in the year 1954. It was entitled 'The Pure Theory of Public Expenditure'. It was this paper that actually formalized the public goods concept which he referred to as 'collective consumption goods'.
- Samuelson's **'Samuelson condition'** is a theory of public goods in the field of economics. It represents the condition required by public goods to be efficient. When this condition has been satisfied, it means that more substitution of private goods for public goods and public goods for private goods will only lead to the fall of social utility.
- According to Richard Musgrave, the 'Maximum Social Advantage' principle of Dalton is the 'Maximum Welfare Principle of Budget Determination'.
- According to Musgrave, there were two budget policies that had been proposed by Dalton. In one budget policy, he proposed that resources need to be distributed in different directions so that it will equalize the marginal return of satisfaction that accrues for all the various types of expenditure that is made.
- The other budget policy proposes that it is essential to push the public expenditure to such an extent that the satisfaction that accrues even from the last rupee spent will be equal to the satisfaction which was lost due to the last rupee taken away in the form of tax.
- It is important to determine the size of the budget such that it will lead to the society's maximum welfare.

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3.7 KEY TERMS

- **Voluntary exchange:** It refers to the act of sellers and buyers willingly and freely participating in market transactions.
- **Altruism: Altruism** or selflessness is the principle or practice of concern for the welfare of others.

3.8 ANSWERS TO 'CHECK YOUR PROGRESS'

1. In case of a market economy, voluntary exchange is discussed as being something we willingly sacrifice to get something else, and this is in totality a human trait and is fully desirable.
2. In 1919, the Swedish Erik Lindahl put forth a rigorous and formal model of the benefits received from the voluntary exchange theory of public finance.
3. Lindahl's model has its basis on the assumption that it is only a type of taxation that finances the activities of the State. This financing cannot be done by other means like public borrowing and employing a printing press.
4. Paul Samuelson's first landmark paper was published in the year 1954. It was entitled 'The Pure Theory of Public Expenditure'. It was this paper that actually formalized the public goods concept which he referred to as 'collective consumption goods'.
5. A good is called a pure public good of each individual's consumption of such a good leads to no subtraction from any other individuals consumption.
6. (i) 'Maximum Welfare Principle of Budget Determination'
   (ii) Maximum welfare
7. The voting paradox is a condition marked by the Marquis de Condorcet in the late 18th century, in which combined preferences can be cyclic (i.e., not transitive), even though the preferences of distinct voters are not cyclic.
8. The paradox of voting is contradictory, because it states that mainstream wishes can be in opposition with each other. When this happens, it is because the contradicting majorities are each made up of diverse clusters of individuals. This is also called as Condorcet's paradox or the paradox of voting.

3.9 QUESTIONS AND EXERCISES

Short-Answer Questions

1. When is voluntary exchange said to have been pleasing and beneficial for both parties?
2. What is considered to be the major failure of economics?
3. List the problems that were taken up by Lindahl.
4. Why did Musgrave criticize Lindahl's model?

5. 'According to Musgrave, there were two budget policies that had been proposed by Dalton.' What are the policies?
6. What does the paradox of voting postulate?

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Long-Answer Questions

1. Discuss the voluntary exchange principle with regard to market transactions.
2. Describe Lindahl's model with the help of a diagram.
3. Assess the criticism obtained by Lindahl's model.
4. Evaluate Samuelson's model of public goods.
5. Critically analyse Musgrave's optimum budget model.
6. Explain the paradox of voting as observed by Anthony Downs.
7. Write a note on Samuelson condition.
8. Discuss in detail the paradox of voting as put forward by Marquis de Condorcet in the late 18th century.

3.10 FURTHER READING

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UNIT 4 PRINCIPLES OF TAXATION

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4.0 INTRODUCTION

Every government needs funds to finance its activities. They may be raised from various sources. The important sources include taxes, interest receipts, income from currency, borrowings, sale of public assets, income from public undertakings, fees, fines, gifts and donations. Professor Dalton makes a distinction between public receipts and public revenue. To him, public receipts include receipts of the government from all sources while *public revenue* is a narrower concept and excludes public borrowings, income from the sale of public assets, or receipts from the use of 'printing press'.

Taxes must be levied on people with great care and rationality. In order to practice this rationality and care, the taxing authority must follow a certain code of conduct in the form of principles of taxation while determining the type and amount of the tax to be levied. The various theories which have been developed since Adam Smith's days to guide the state in levying taxes are called the principles or canons of taxation.

Every tax imposes an additional burden on the taxpayer. In other words, a tax is a compulsory payment which cannot be refused without attracting punishment by the government. The government does not promise any direct benefit to the tax-payer. Thus, it becomes essential that the burden of tax should be divided fairly and appropriately

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in the economy. The government is responsible for providing certain facilities to the citizens. It has to adopt a definite principle and a definite machinery to apply these principles while imposing, collecting and utilizing the money thus collected through taxes. The tax policy of the government must be production-oriented, clear-cut, and less attentive to the subsidiary objects. In this unit, you will get acquainted with the principles of taxation.

4.1 UNIT OBJECTIVES

After going through this unit, you will be able to:

- Describe the various canons of taxation
- Explain the benefits received theory of taxation
- Assess the ability to pay approach to taxation
- Discuss the concept of taxable capacity and the factors determining taxable capacity
- Analyse the concept of regressive, proportional and progressive tax
- Give an overview of the Indian Tax System

4.2 CANONS OF TAXATION

The totality of all taxes that are levied by a government is termed as tax system. The authorities view their tax system as a means towards achieving one or more objectives (such as raising revenue) and, in conformity with them, they identify certain criteria or principles as guidelines for building the tax system. The features of the tax system also flow from the principles upon which it is designed as also its detailed structure. Frequently, some objectives of a tax system turn out to be contradictory and this problem is resolved by some sort of a compromise.

Every tax system generates not only revenue receipts for the government, but also innumerable other spill over effects. To a typical academician, an ideal tax system is the one which is likely to maximize the sum total of its most desirable effects. The next step is to identify those tax principles on which such an ideal tax system should be based. The first set of such principles was enunciated by Adam Smith, a Scottish philosopher and political economist, which he called Canons of Taxation.

Adam Smith was interested in enabling an economy to increase its productive capacity and thereby achieve a higher rate of growth. Further, he firmly believed that private sector was more efficient than the public one and, therefore, the primary responsibility of economic growth should rest with the private sector. Economic growth necessitates large scale saving and investment. It is also essential that the investment should be along productive lines. He was of the view that the private sector should be entrusted with the maximum possible economic responsibility and for an efficient discharge of this duty, it should be given as much freedom as possible. The only additional consideration should be the adequacy of revenue for the State (for its own maintenance, for defence, for law and order, and for social overheads) and an equitable distribution of the tax burden. With this end in view, he laid down those principles of taxation which were to satisfy these conditions.

4.2.1 Adam Smith's Canons on Taxation

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Adam Smith prescribed the following four canons of taxation.

1. Canon of Equality

'The subjects of every State ought to contribute towards the support of the government, as nearly as possible, in proportion to their respective abilities; that is, in proportion to the revenue which they respectively enjoy under the protection of the State.' This canon tries to observe the objective of economic justice. It dictates that, in absolute terms, the richer should pay more taxes because without the protection of the State they could not have earned and enjoyed that extra income. If we interpret this principle in terms of disutility which the taxpayers suffer by paying taxes, it follows that the tax should impose equal marginal disutility upon every taxpayer. Two possibilities emerge in this case. If incomes are subject to constant marginal utility, then both the rich and the poor should be subjected to proportional taxation— each person paying a given percentage of his income as tax. On the other hand, if we agree with the more realistic proposition that income is subject to diminishing marginal utility, then the richer should pay a larger proportion of their incomes as taxes (that is, the taxes should be progressive).

2. Canon of Certainty

This canon is meant to protect the taxpayers from unnecessary harassment by the tax officials. 'The tax which each individual is bound to pay ought to be certain, and not arbitrary. The time of payment, the manner of payment, the quantity to be paid, ought all to be clear and plain to the contributor, and to every other person.' The taxpayers should not be subject to arbitrariness and discretion of the tax officials, since that breeds a corrupt tax administration. With a scope for arbitrariness even an honest tax machinery will become unpopular. Smith is so emphatic about this principle as to claim 'that a very considerable degree of inequality... is not near so great an evil as a very small degree of uncertainty.'

3. Canon of Convenience

The mode and timings of tax payment should be, as far as possible, convenient to the taxpayer. This canon recommends that unnecessary trouble to the taxpayer should be avoided, otherwise various ill-effects may result.

4. Canon of Economy

This canon recommends that cost of collection of taxes should be minimum. The government should avoid those taxes which are too thinly spread and difficult to administer, since they entail unnecessary burden upon the society and add to the administrative expenses. The productive efforts of the people also suffer due to this wastage. Realizing that the tax collections are being wasted, the taxpayers also tend to evade them.

4.2.2 Additional Principles

Smith's canons of taxation were derived from a sound reasoning in conformity with the needs of the economy and prevalent thinking of these times, and they continue to be relevant even today. However, developments in economic thinking and pressing realities

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of modern economies necessitated identification of a few additional principles of taxation briefly described below.

1. Canon of Productivity

It is also called the canon of *fiscal adequacy*. According to this principle, the tax system should be able to yield enough revenue for the treasury and the government should have no need to resort to deficit financing.

2. Canon of Buoyancy

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

3. Canon of Flexibility

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

4. Canon of Simplicity

The tax system should not be too complicated that it becomes difficult to understand and administer and breed problems of interpretation and legal disputes.

5. Canon of Diversity

It is risky for the State to depend upon too few sources of public revenue. Such a system is bound to breed a lot of uncertainty for the treasury. It is also likely to be inequitable between different sections of the society. On the other hand, if the tax revenue comes from diversified sources, then any reduction in tax revenue on account of any one cause is likely to be very small. However, too much multiplicity of taxes is also to be avoided that may lead to unnecessary cost of collection and thereby violate the canon of economy.

Latest Additions

Economic thinking, particularly after Second World War, has undergone a radical transformation in which the State has been assigned a comprehensive role for tackling the country's economic and social ailments. Growing complexities of a modern economy and a comprehensive role of a modern government in it has led to the development of a whole array of objectives in which tax system is viewed as a collection of effective policy weapons. Consequently, the latest principles of taxation include not only imposition of taxes, but also tax concessions, rebates, exemptions, and so on. These days, tax instruments are specifically designed to deal with a large variety of socio-economic problems including economic development, regional and inter-sectoral imbalances, distributive justice, insufficient availability of merit goods, maximization of social welfare function, stability of income and employment, encouraging or discouraging specific industries and so on.

It must be remembered that the tax structure of a country is a part of its economic organization and should, therefore, fit in its overall economic philosophy. No tax system that does not satisfy this basic condition can be termed a good one. Over time therefore, ideas regarding what should form a good tax system have undergone an evolution.

Check Your Progress

1. Why according to Adam Smith should the primary responsibility of economic growth rest with the private sector?
2. What does the canon of equality try to observe?
3. What does the latest principle of taxation include?

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4.3 BENEFIT AND ABILITY TO PAY APPROACHES TO TAXATION

There are three ways of classifying tax theories. A taxation theory is a model depicting a tax system built upon various identified assumptions and objectives with a set of corresponding features. Viewed this way, tax theories may be classified into three groups as below.

1. A taxation theory may be derived on the assumption that there need not be any relationship between tax paid and benefits received from State activities. In this group, we have *two theories, namely,* (a) *Expediency theory,* and (b) *Socio-political theory*
2. A taxation theory may be based on a link between tax liability and state activities. It would assume that the State should charge the members of the society for the services provided by it. This reasoning, on the one hand, justifies imposition of taxes for financing State activities and on the other, by ıference, provides a basis for apportioning the tax burden between members of society. This logic, therefore, yields two theories, namely, (a) *Benefits received theory* and (b) *Cost-of-service theory.*
3. An extension of the former reasoning would be that though there need not be any relationship between tax liability and provision of State services, tax liability should be apportioned between taxpayers on the basis of their comparative ability to pay. This gives us the *Ability to pay theory.*

In this section, we will deal with the benefits received and ability to pay approach to taxation.

4.3.1 Benefits Received Theory

The benefits received theory proceeds on the assumption that there is basically an exchange or contractual relationship between taxpayers and the State. The State provides certain goods and services to the members of society and they contribute to the financing of these supplies in proportion to the benefits received by them. In this *quid pro quo* set up, there is no place for issues like equitable distribution of income and wealth. Instead, the benefits received are taken to represent the basis for distributing the tax burden in a specific manner. This theory overlooks the possible use of tax policy for bringing about economic growth or economic stabilization in the country.

Services supplied by the State may be divided into two categories. The first category consists of those services to which the principle of exclusion does not apply. In this case every member of the society consumes these services and therefore should contribute to the State revenue in accordance with the benefits received. But the other category is the one where the taxpayers have the option to accept or reject the state services. Here, a market relationship is established between the two, and therefore, what the members of the society pay are the fees and the prices and not the taxes in strict sense of the term. Taxes are by definition compulsory payments without *quid pro quo* and this condition is not satisfied in this case.

The benefits received theory has a long dated origin and its roots lie in the Contract Theory of the State. A fuller survey of the evolution of this theory is available in Professor Edwin R. Seligman's *Progressive Taxation in Theory and Practice.* The theory was

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in vogue with German, French and other writers like Grotius, Hobbes, Locke, Hume and Rousseau. Its main theme is that there is a contractual relationship between the State and its subjects such that the State provides various goods and services and the citizens finance their provision by paying taxes.

Hurdles

As in the case of other theories, several problems crop up in its practical application. Since tax burden is to be distributed between taxpayers in proportion to the benefits received by them from State services, the authorities have to identify the beneficiaries and quantify the benefits derived by them. This, however, is not an easy task.

- Benefits derived from state services are closely related to the distribution pattern of income and wealth in the country. It is so because, amongst other things, income distribution is a major determinant of demand pattern including demand for State services. Therefore, it has to be assumed that the existing distribution of income and wealth is an appropriate one and there is no need to change it.
- Benefit derived by an individual from State services is ultimately a subjective thing and it is conditioned not only by the State services enjoyed by the individual under consideration, but also the availability of these services to other members of the community as also the attitudes of their beneficiaries. There is no standard format or pattern of these attitudes and, as a result, depending upon the set of attitudes of community members, a given amount and variety of State services may yield divergent measures of derived benefits.
- It is possible that State services may lead to a net addition to or reduction in national income. This theory does not tell us what to do in this case.
- Several State services have spill over effects, and frequently it is very difficult to pinpoint the losers and gainers and quantify their losses and gains. For example, provision of health services to residents of a locality is likely to have a beneficial impact upon the health of the neighbouring colonies as well. Again, if a slum area is improved by the State, some of those living in nearby palatial houses may be happier for it, while some others may feel that their comparatively 'higher' status has been compromised.
- This theory does not tell us whether the losers are to be compensated by the State or not, and if so, who pays for that.

Since, in the ultimate analysis, benefit derived from State services is a subjective thing, there is no scientific way of quantifying it. At the most, it may be possible to consider some proxy variables or widely approved criteria.

For example, income is often used as an indicator of the benefits received from the State. This is because the society and its economy cannot be preserved without State protection. Members of the society can also earn and consume income and possess and enjoy wealth only if the State makes laws to that effect and enforces them. By implication, their tax liabilities should also be proportional to their incomes and wealth. This was the stand taken by Adam Smith when he said that each individual ought to contribute to the public revenue according to his ability. Smith equated relative ability to pay of the taxpayers with incomes which they respectively enjoyed under State protection. Thus, in due course, the benefits approach gradually came to reflect a philosophy that taxation was basically a payment for the protection provided by the State.

It is, of course, interesting to note that even this narrow reasoning permitted contradictory results. Diametrically opposite opinions were expressed as to who was in

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greater need of State protection, the rich or the poor. Thus, while Rousseau and Sismondi argued that the rich needed greater protection of the State, John Stuart Mill and others thought that the poor were in greater need of protection from exploitation by the rich. Thus, while one group of thinkers advocated progressive taxation, the other was in favour of regressive rates.

In late nineteenth and early twentieth centuries, the benefits received theory was put to an additional use in simultaneously determining the optimum level of State activities and optimum distribution of tax burden. To this end, the concepts of demand and supply schedules were extended to demand for and supply of State services in varying details. In each model, taxpayers were treated as buyers of State services with respective demand schedules and the government was treated as the supplier of these services. The basic problem was that, in several cases, it was not possible to determine demand schedules with any precision and taxes had to be charged by making certain simplifying assumptions.

In this connection, we may start with an Italian thinker, U. Mazolla (1863–1899), famous for his contribution to the theory of public goods. In 380, he asserted that there is a basic difference between the characteristics of private and public goods in the sense that the latter are all shared by the consumers and the principle of exclusion does not apply to them. Accordingly, instead of charging equal tax from each taxpayer for public goods, their liability should be determined in proportion to the relative marginal utility derived by them from the consumption of State services. In the process, each taxpayer would equate the marginal utility from his expenditure on the public and private goods.

In 1887, Emil Sax, an Austrian economist, made a distinction between personal collective wants and collective wants proper. The principle of exclusion applies to the former and, in their case, fees or taxes can be charged according to the services received. But in the latter case, the principle of exclusion does not apply. No individual consumer can be left out of the benefit of these services. Accordingly, in this case the taxpayers have to agree as to what is the relative benefit which they derive from their respective consumption of public services. Sax advocates that a good proxy of the measure of this relative benefit would be the proportional income tax.

In 1888, Antonio de Viti de Marco (another Italian economist) made an assumption similar to that of Sax that the members of the society consume public services in proportion to their incomes. This assumption should have led him to advocate proportional taxation. But he also brings in the question of marginal utility of income to the taxpayers. Since larger incomes bring in lower marginal utility, the richer citizen ought to pay more for the same service. De Marco, like Adam Smith, then brings in a mixture of the benefit approach with that of the equitable distribution of sacrifice which is represented by ability to pay approach. He is not asserting that the richer people secure greater benefit from State services, as is maintained by some others. The richer, therefore, are not to pay more taxes because of greater benefits, but because of lesser sacrifice involved in paying taxes. They are to pay more taxes because proportional taxation hurts the poorer more and the richer less. It is the equitable distribution of sacrifice which leads us to recommend that the richer sections should pay more taxes.

Limitations of the Benefits Received Approach

The limitations of the benefits received approach is as follows:

- The main difficulty in this approach is that basically the contributions by members of the society to the State Treasury for the provision of State services are not

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strictly taxes. *They are in the nature of prices* which the members of the society *voluntarily* agree to pay for the public services rendered to them. Even when the decisions regarding the supply of public services and the respective contributions by the members of the society are taken not on individual basis, but on the basis of some representative body such as the Parliament, or on a majority voting basis, prices only partially acquire the character of taxation (i.e., compulsory payment without any necessary *quid pro quo*).

- It is impossible to quantify *the benefits* derived by individual members of the society. Benefit is ultimately a subjective thing and cannot be estimated directly. Any proxy variable used for this purpose will always be subject to discussion. And quite often diametrically opposite results may be arrived at on account of this difference in the interpretation of the benefits. Thus, some authors take income as the representative of the benefits received. In itself, this is a questionable index especially if we do not look into the expenditure pattern of the State. For example, it would be wrong to maintain that the benefit of State services derived by two individuals would be equal with one of them getting a State pension of ₹100 per month and the other earning that very amount by own labour.
- It is assumed that the benefits derived by consumers of State services are independent of each other. It means that the benefit that individuals enjoy depends only upon their own consumption of State services and that it makes no difference to him as to who else is consuming them and how much. This is a factually incorrect statement. We all know, for example, that the satisfaction that one derives from income depends not only on absolute income, but also equally upon the income of others. Moreover, there is no way of knowing the *nature and extent* of this interdependence on *a priori* basis. A rich person may feel better on account of the fact that his/her income is far bigger than those of the others or may feel depressed because there is poverty around him/her. It is highly unlikely that the rich person would be totally indifferent to the incomes received by others. In the same manner, the benefits derived from State expenditure do not depend only upon their absolute amount consumed by a given individual, but also upon how that individual views the consumption-shares of others.
- This principle falls foul of all welfare activities of the State which bring in any distributive change. 'For example, the benefit derived by an old-age pensioner from his pension is definite enough, and the benefit of service principle would require him to return it to the public treasury in the form of a special tax.' Though, quite erroneously, this principle assumes that the distribution of income is already proper, still such a proper distribution might be the result of the State activities themselves. If the State taxes according to the benefits received, the net result might be an improper income distribution. Therefore, the assumption that income distribution is already proper is obviously erroneous. An important objective of most fiscal policies is to bring about a shift towards what is considered an equitable income distribution. The benefit principle militates against this possible objective. The relationship of the State with its citizens is reduced to a semi-commercial level only.
- It is equally questionable to assume that the income received by a member of the society is directly connected only with the benefits received from the State. The exact relationship between the income of an individual and the valuation of the benefits received from the State services is not always clear and quantifiable.

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Looked at from one angle, it may be said that income is subject to the law of diminishing marginal utility and as a result the richer people derive proportionately lesser benefit from the State activities. It may also be asserted that the poor are in greater need of the State protection so as to be saved from exploitation by the rich. That is why the State has to enact all kinds of labour legislation and enforce the same. The other view here could be that the richer sections can enjoy their wealth and income only because of the State protection of their rights. If the State derecognizes their rights, they will lose this privilege. Therefore, the richer sections need and get a larger measure of State protection. Also, in practice, we know that enactment of various laws and traditions enable the richer classes to have much wider and profitable opportunities of acquiring additional income. The opportunities to the poor are always inadequate.

- It must be remembered that a society is not just the summation of its individual members. As German writers have the tradition of insisting upon, a society is an organic entity, having a soul of its own in addition to being the sum total of its members. Accordingly, there are many benefits and costs which cannot be ascribed to any particular individual or a group of individuals. The existence of the society and the nature of some goods is such that there are externalities of those goods. Mention has already been made of such externalities while discussing public goods. The problem therefore remains that of assigning the net benefits and the tax burden. There are certain State activities, such as those helping the economy in its economic growth, which cannot be quantified at all much less ascribed to any particular sections of the society.
- In a number of cases people suffer from a lack of complete knowledge. A particular State service may be of great help to the society and even to the individual taxpayers, but it may not be widely known. In India, for example quite a few villagers may not be able to appreciate the benefits of polio vaccination and similar other health measures. It will be misleading on our part to assume that these villagers would be voluntarily opting for the provision of these health measures and would also offer to pay for the same.
- A modern economy is generally faced with the problems of economic growth (in the case of underdeveloped economies) and/or of stabilization (especially in the case of developed economies). Benefits approach is not able to guide the government in this sphere because the benefits accruing to the economy as a whole cannot be apportioned amongst individual members of the society.
- The benefits received theory does not become more acceptable even if we take up a more rigorous and formal statement of Erik Lindahl. Lindahl's approach necessitates that each taxpayer should reveal his/her true preferences. First, it may not happen, especially when each taxpayer finds that it may be possible to achieve a better position by showing a lesser demand for State services (or public goods). Ultimately, it becomes a question of the strategy and bargaining power and no single equilibrium solution becomes available. Second, the problem becomes all the more complicated when the number of taxpayers is more than two, as is always the case. With a large number of taxpayers, individual taxpayers will find that this non-contribution to the public revenue does not adversely affect the State expenditure or the supply of public goods proper. Accordingly, taxpayers have the tendency to evade tax and conceal their true preferences. Unless true preferences of the members of society are known, decisions regarding the nature

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and extent of public services cannot be taken; nor can the allocation of the cost of services be made. Third, in some cases, the whole approach can lead to a very absurd result. For example, realizing that his contribution as a taxpayer would not affect the defence effort of the country, each taxpayer might refuse to contribute for it. Should it mean that the true preference of the society is not to be protected against foreign aggressions? Obviously, we have been led to a wrong conclusion by the concealment of true preferences by the society.

- Wicksell and Colm emphasize the basic fact that the determination of the State budget is through a political process and not through the market mechanism of demand and supply forces. The state organization might work through an elected legislature or through a bureaucracy or some such other method, but it is certainly not a market process in which demand and supply forces determine the extent of each service and its price to be charged from the individual consumers. Furthermore, Colm also points out that apart from the fact that the State budget is determined through a political process, an individual also changes his *outlook* while taking decisions about the taxes. In the latter case, he does not go by his own individual interest only. He has also in mind the political factors including what type of society he wants to have around him and the way in which tax contributions can help in its building.
- A general objection to this theory is its non-recognition of the objective of equity in taxation. Though it is occasionally mentioned, it is not generally accepted as a part of this theory.
- Similarly, in this theory, the relationship between the government and the public is reduced to the one of a semi-commercial nature. Several basic functions of a good government like helping the needy, protecting the helpless, and so on are ruled out in this theory.
- This approach does not tell us what to do if tax collections based on benefits received method do not match the governments expenditure needs. Should the government then resort to budgetary savings or market borrowings? Also no interconnection between tax collections and other sources of government revenue like gifts, profits from currency etc., is brought to the forefront.
- Different economic units are interdependent in an economy through their mutual economic transactions. As a result, the benefits or losses of government activities seldom remain confined to their first points of impact. Almost invariably, there are additional rounds of benefits or losses to the economy. This approach does not advocate taxing the secondary, tertiary and later beneficiaries.
- The benefits received principle of taxation is based upon the assumption that market mechanism fails to supply goods and services which have a quality of publicness in them. It assumes that these goods and services are so important that arrangements should be made for their supply. This, in turn, implies that the state should undertake the supply of these goods and services and charge for them from their beneficiaries. Samuelson has been a strong supporter of the view that only public sector can supply those goods which are non-rivalrous in production. The latter characteristic implies that its consumption by one does not deprive others from its use. However, this characteristic also leads to the inference that its marginal cost is zero and therefore it is not possible to establish a correspondence between its cost to the supplier and the benefit to its users. This weakens the very theoretical basis of financing the supply of a public good on benefit principle.

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Moreover, various theoreticians have emphasized the difficulties associated with identifying goods and services that not only contain the characteristics of publicness, but also *retain* them. The Paretian type theorizing of welfare maximization couched in static terms becomes debatable in this case, since the characteristics of publicness in many goods tend to vary with the techniques of production and areas of consumption.

4.3.2 Ability to Pay Theory

This theory has enjoyed widespread popularity right from sixteenth century till date, particularly it sub-serves the ends of a modern welfare State. The well-known advocates of this theory include Rousseau, J. B. Say, Adam Smith, J. S. Mill, among others. It has been used as a theoretical underpinning for several policy prescriptions like progressive taxation, reduction in income and wealth inequalities, and removal of regional disparities, etc.

This theory views tax liability in its true form—a compulsory payment to the State without any *quid pro quo*. It does not assume any commercial or semi-commercial relationship between the State and the citizens. According to this approach, a citizen is to pay taxes *just because he can,* and his relative share in the total tax burden is to be determined by his relative paying capacity. This doctrine has been in vogue for at least as long as the benefits-received approach. A good account of its history is found in Seligman.[1] This theory was bound to be supported by socialist thinkers because of its conformity with the ideas and concepts of justice and equity. However, the doctrine received an equally strong support from non-socialist thinkers as well and became a part of the theory of welfare economics.

The basic tenet of the ability to pay doctrine is that the distribution of tax burden between members of society should be on the criteria of justice and equity which, in turn, implies that the tax burden should be apportioned according to their relative ability to pay. In this connection, the following points are particularly noteworthy.

- The doctrine of ability to pay is also combined, in certain cases, with the objectives of maximum welfare of the society. This happens when the index of paying ability is compiled on the basis of equi-marginal sacrifice. In that case the society undergoes *least aggregate sacrifice* in meeting a given tax liability.
- The ability to pay of the society as a whole is *not an absolute but a variable quantity* and depends upon a number of variables including the expenditure side of the government budget.
- Analysts have identified several indices for quantifying relative ability to pay of the taxpayers such as, income, property and wealth, and consumption expenditure.
- It is sometimes thought that income as the index of ability coupled with objectives of equity and welfare *necessarily* implies progressive[2] taxation. This is not so. Under certain conditions, proportional or even regressive taxation may follow from this line of reasoning. As mentioned above, ability to pay is not an invariant quantity, and amongst other things, depends upon the expenditure side of the government budget. A modern government is generally eager to adopt all feasible measures to help, guide and protect the economy and society. Basically, therefore, it is the overall budgetary policy which matters, and not just the taxation in isolation of the rest of the budget. However, for the sake of simplicity of analysis, all these factors are considered exogenous and given.

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- While the fact of repercussive effects of a fiscal policy[3] is recognized, it is usually ignored for keeping the arguments at a simple level.
- While cost of service approach to the distribution of tax burden implies that the government should try to have a balanced budget, the ability to pay approach does not have any such direct implication. The claim of non-essentiality of a balanced budget is further strengthened if we bring in the expenditure side of the budget to make the analysis more realistic. Actually, ability to pay approach has the advantage that its analysis can be extended into more realistic spheres to give us a unified picture of the overall fiscal policy of the government. It can admit the interdependence of government expenditure and the paying ability of taxpayers. It also follows that the government should not have a predetermined notion of necessarily having a surplus or a deficit budget. Similarly, the authorities need not limit their revenue raising activities to taxation only—an active and effective debt management policy becomes a part and parcel of their fiscal policy.
- There can be a difference of opinion as to what constitutes the ability to pay of the citizens. The index of ability compiled by us may be an objective or a subjective one. An objective index may be based upon income, expenditure, wealth and property, etc. of the taxpayers, or a weighted combination of some of them. Similarly, a subjective index may be compiled on the basis of those variables which are identified as relevant for equity and welfare. Either way, an ability to pay index is supposed to enable the authorities to distribute the tax burden between members of society in conformity with their comparative ability to bear it. Its expected spill-over effect is minimization of aggregate sacrifice by taxpayers.

1. Objective Indices of Ability

(a) Property as an Index of Ability to Pay

There are several limitations and conceptual difficulties in adopting this objective index. By itself, it is an incomplete index and may be used only to supplement other indices. It has a meaning only in an economy which has the institutions of private property and inheritance and in which, therefore, decisions of saving and investment are primarily in the hands of private individuals, families, and the corporate sector. These institutions provide a great incentive for the will to work, save and invest. If property is chosen as an index of ability to pay, these activities are liable to suffer with adverse effects upon capital accumulation in the economy and its growth rate.

Furthermore, if tax rates are quite high, they would eat into the property, and the set back to saving and investment activity will be all the more severe. It must also be remembered that in an underdeveloped country, where the volume of such taxable property is likely to be small, and where inequalities of wealth are great, this revenue resource is very likely to be both inflexible and inadequate.

Property by itself is bound to be an incomplete index in many cases. Some properties yield more income than the others, and some do not yield any income at all. Therefore, considering the ownership of property to the exclusion of other possible indices of ability to pay is bound to be misleading.

However, just as property should not be chosen as the sole index of ability to pay, it should not be left out of any index either. This is so even when some properties do not yield any income, since their very existence adds to the owner's ability to pay[4]. Also from the point of view of welfare, concentration of economic power should be prevented

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because it *generates opportunities of economic exploitation, and leads to unequal economic opportunities for the citizens.* Property owners are also known to be able to manipulate the working of the economy to their advantage. It is for this reason that taxing of gifts and inheritances should find an important place in any egalitarian tax system.

We may say, that it will be erroneous to rely upon property as the sole index and source of taxation, but it is an equally erroneous to leave it out. Any good tax system will take into account the property ownership and the powers which it confers upon the owners and would consider it as an important source of public revenue.

(b) Consumption Expenditure as an Index of Ability

Choice of this index assumes that people with higher consumption expenditure derive smaller marginal utility from it. Therefore, they can pay more tax and suffer a greater reduction in their consumption expenditure without losing more utility than those who are spending less. By implication, it is also assumed that levels of income and expenditure of taxpayers rise and fall together and therefore taxpayers with higher expenditure are those who have higher incomes. Furthermore, expenditure drains resources of the society and, for that reason, ought to be taxed. But in spite of these arguments, it is not a satisfactory index of ability to pay. For various reasons, it is a very difficult index to compile and still more difficult to administer because of problems in estimating consumption expenditure during a given period of time. Use of some indirect taxes like excise duties and sales taxes as proxies of tax on consumption expenditure implies that taxpayers can be classified into ability categories according to the goods and services they consume. But this is frequently not so. Moreover, several indirect taxes can be quite regressive in their nature.

Some critics claim that it is questionable to tax only that part of income which is consumed, and leave out that portion which is saved and invested. This system enables higher income people to plough back their earnings into investment and increase the concentration of economic power in their hands without attracting tax liability. We may, therefore, conclude that a tax on consumption may be a part of the overall tax system, but not as its sole component.

(c) Income as the Index of Ability to Pay

Income is one of the most accepted indices of ability to pay, though it is usually supplemented by other tax indices also. Even Adam Smith, while asserting the ability criterion in his first canon of taxation, maintained that such ability is in proportion to respective incomes of the taxpayers. However, as we shall see, income itself, from the point of view of ability to pay, is subject to several interpretations. Accordingly, various conceptual points have to be clarified before this index can be recommended and of course, as in any other index, there are also several practical difficulties in its administration.

According to this approach, a citizen receiving a larger income is made to foot a larger tax bill and vice versa. As a matter of detail, income may be divided into two parts: (i) earned income, and (ii) unearned income. The latter includes capital gains etc., and may be subjected to heavier taxation. Also, it is net and not gross income which should be considered for this purpose. This is because normally, expenses (both monetary and non-monetary) have to be incurred to earn an income. Similarly, conceptually speaking, leisure is also a part of one's real income. Accordingly, a person's net income should mean the gross income plus leisure minus expenses incurred to earn that income.

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Limitations

However, net income, even when measured in this rigorous way, is not an ideal index of tax paying ability. It also suffers from a number of limitations. They are:

- The ability to pay of a taxpayer is as much dependent upon his needs as his income. Persons having same income but different needs do not have same ability to pay.
- Ability to pay depends upon marginal utility of money which is a tricky measure. It is subject to quick variation on several grounds and cannot be quantified because of its subjectivity.
- The income as an index of ability to pay appears far less relevant in the case of corporate incomes. An individual or family might own a number of small enterprises and thereby acquire a large amount of income. Alternatively, a large business may be owned by a number of individuals or families, each getting a small amount of income. By implication, corporate sector may be subjected to a uniform rate of income tax.
- In the same manner, it is difficult to use this index in indirect taxes. Since indirect taxes are collected as taxes on commodities and services, it is implicitly assumed that the consumers can be classified into homogeneous groups of equal ability to pay according to the types and quantities of goods and services purchased by them. This is obviously a highly unrealistic assumption.
- A comprehensive indirect tax on both goods and services makes it still more difficult to structure it in conformity with the principle of ability to pay. GST accommodates very few exemptions and identified 'sin goods' which are subjected to a penal tax rate. If exemptions and 'sin goods' are ignored, GST boils down to a proportionate tax on consumption expenditure.
- In underdeveloped countries, it may be partially correct to assume that luxuries are purchased mainly by the richer sections only. But even there it is not necessarily so. Where there is no electricity, even very rich residents are not likely to have refrigerators or air conditioners. In advanced countries, the difficulty arises from the fact that consumption pattern is much less indicative of the relative paying capacity of the citizens.

However, in spite of all these limitations, income as an index of ability is more appealing than other indices. It still satisfies our priori expectations to a great extent.

In practice, however, it is helpful if we adjust and determine the tax liability at multiple levels based upon income, consumption, wealth and property, gifts and inheritances, capital gains and unearned increments. Also, it is still helpful if the system of taxation includes both direct and indirect varieties.

2. Subjective Indices of Ability to Pay

(a) Assumptions

Subjective approach to ability to pay proceeds on the assumptions that a taxpayer undergoes a hardship or suffers a sacrifice by paying the tax. It is assumed that he does not feel better by the idea that he is contributing to the welfare of the society through helping the State in its multifarious activities. Also, it is assumed that the sacrifice of a taxpayer depends upon his own tax liability and is not affected by the tax paid by others.

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(b) Equity versus Welfare

The question of determining tax liability of individual taxpayers may be considered in the context of equity and/or welfare. The goal of equity dictates that sacrifice undergone by taxpayers is equally apportioned between them. In contrast, 'welfare' approach aims at minimizing (to the extent possible) the aggregate sacrifice of all the taxpayers put together. The concept of equal sacrifice admits of different interpretations and one such interpretation tallies with the welfare objective also.

(c) Equal Sacrifice

The term same or equal sacrifice may be interpreted in three alternative ways, namely,

- Equal absolute sacrifice
- Equal proportional sacrifice
- Equal marginal sacrifice

Dalton adds a fourth possible interpretation, namely, ***constant inequality of incomes.***[5] It means that the inequalities of incomes as between different taxpayers should *remain the same after the tax as they were before the tax.*

Out of these four alternative meanings of equal sacrifice, the one termed Equal Marginal Sacrifice also leads to the Least Aggregate Sacrifice which is the goal of Welfare approach.

Correct Meaning of Equity

As Dalton says, '*Prima facie,* it is not clear, on grounds of equity, which of these four is to be preferred.'[6] While applying any of these principles, or interpretations, we have to know the utility function of income of each taxpayer. That is to say, we must know the way in which marginal utility of income varies as income of a taxpayer changes. This is a highly tricky area. Moreover, any precise conclusions regarding the division of tax burden between taxpayers in accordance with their respective ability to pay can be derived only if on the basis of two assumptions, namely:

- Utility can be measured in cardinal terms
- It is possible to have an interpersonal comparison of utility

Factually, both these assumptions are highly unrealistic. But some way has to be found out of the difficulty posed by these assumptions. Accordingly, we make a common-sense and plausible assumption of ***similarity*** of income-utility schedules. This assumption has been made even by those authors who do not accept its scientific validity.[7] For example, Dalton says, 'most of us, at given levels of income, are more alike each other in our normal needs and moods, and our reactions to variations in our income, than some theorists recognize.'[8] Even Lionel Robbins who is considered a champion of positivism, says, 'I do not believe and I have never believed that in fact men are necessarily equal or should always be judged as such, but I do believe that in most cases, political calculations which do not treat them as if they were equal are merely revolting.'[9]

Similarly, Lerner asserts that even if currently different individuals have different capacities to enjoy income, it still points towards the need for bringing about income equality, but slowly, so that over time the lower income people may also acquire a capacity to enjoy large incomes.[10]

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However, while agreeing that it is not possible to have objective measures of utility, we may offer the following observations.

• **Equal absolute sacrifice:** This means that each taxpayer is made to sacrifice the same amount of utility so that the difference between the aggregate utility from income before tax and the utility of income after tax is the same for every taxpayer. Symbolically, $U(Y) - U(-T)$ should be the same for all, where U denotes total utility, Y denotes income before tax, and $(Y-T)$ denotes income after tax. If this doctrine is applied, each member of the society will pay at least some tax. No one will enjoy complete tax exemption.

However, it still remains to be determined whether tax rates should be regressive, proportional or progressive.[11] The answer depends upon the behaviour of marginal utility of income schedules. If we assume that marginal utility curve of each member of the society is (i) located at the same distance from X-axis, and (ii) it is parallel to X-axis, (the marginal utility of income is constant for all incomes), then it follows that each taxpayer should pay the *same absolute amount* of tax. This will mean a lower *rate* of tax as income increases, that is, *regressive rates*. On the other hand, if the income utility schedules fall, that is, if marginal utility of income falls as income rises, then with rising income, tax amount will have to increase to represent the same amount of sacrifice. When the rate of fall in marginal utility of income *equals* the rate of rise in income, *proportional* taxation will result in equal absolute sacrifice. On the other hand, if the marginal utility of income falls at *a rate faster* than the increase in income, then the equal absolute sacrifice will require *progressive* tax rates. *It should be noted, however, that unless the slope of the marginal utility curve is known precisely ever the relevant range, the above conclusions cannot be drawn.*

• **Equal proportional sacrifice:** According to this principle also, no one is exempt from sharing the tax burden. Each taxpayer is supposed to sacrifice the *same percentage* of the total satisfaction which he would have derived from his income. Symbolically, it would mean that the tax liability of each individual is determined in a manner that for his income Y, $[U(Y)\ U(Y-T)]/U(Y)$ is a constant. However, while in the case of equal absolute sacrifice, we were able to lay down the rules of progressive, proportional or regressive tax rates (with reference to the rate at which marginal utility falls with an increase in income), such an easy generalization is not possible in this case. *Here the relative rate of change in marginal and average utility of income will have to be looked into.* If the marginal utility of income remains unchanged, then equal proportional sacrifice would call for a proportional taxation. On the other hand, if the marginal utility of income falls, then we shall have to look at the relative percentage shifts in the marginal and average utilities. If the decline in marginal utility is of the same rate as the decline in the average utility then proportional tax will satisfy this objective. If the fall in the marginal utility is at a rate faster than the fall in the average utility, progressive taxation will be called for. If the fall in the marginal utility is at a rate slower than the fall in average utility, then regressive taxation will be needed to satisfy this criterion.

The above analysis can be presented graphically also. In Figure 4.1, income is measured along horizontal axis and marginal utility of income along vertical axis. If marginal utility falls at the same rate as the rate of rise in income, then the marginal utility curve would be drawn such that for each point the rectangle formed by the abscissa, the ordinate and the two axes bears the same proportion to the area under the curve to the left of this point. The equation of this curve is given by $U'(Y_1)/U'(Y_2) = Y_2/Y_1$ where $U'(Y_1)$ and $U'(Y_2)$ are the marginal utilities of incomes Y_1 and Y_2. Let us draw a straight line passing through the origin O, intersecting the line of proportions at P and forming an

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angle of 45° with each axis. Also let a rectangular hyperbola APB pass through point P. Then the line of proportions CPD would lie below the rectangular hyperbola to the left of P and above it to the right of P. Now for equal proportional sacrifice we have the following conclusions. If the marginal utility curve coincides with CPD, the income tax rates should be proportional; if it falls more rapidly than CPD, then the rates should be progressive. And they should be regressive if the marginal utility curve descends less rapidly than CPD. Thus, we find that in the case of equal proportional sacrifice, the tax rates do not have to be progressive *simply because* income is subject to falling marginal utility. It should be noted, however, that the above conclusions are based on the assumption that the behaviour of the marginal utility of income (that is, the slope of the marginal utility curve) is known over the entire range of income.

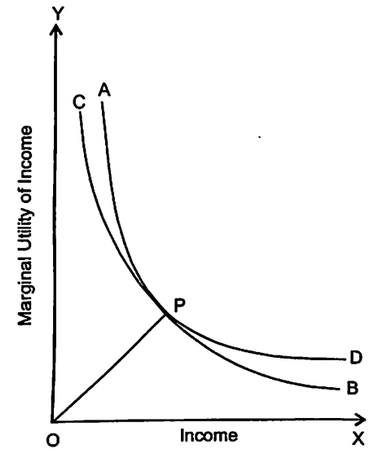


Fig. 4.1 Equal Proportional Sacrifice

• **Equal marginal sacrifice or the least aggregate sacrifice:** According to this interpretation of equity, the tax burden should be apportioned in such a way that the marginal utility of income left after tax with any taxpayer is to be the same. Symbolically, for each taxpayer, $U'(Y-T)$ should be the same. In this principle the emphasis is equally on the welfare of the community. It follows from the utilitarian dictum of 'the greatest happiness of the greatest number'. This philosophy asserts, amongst other things, that the aggregate sacrifice imposed on the community by the taxation should be the least possible. Musgrave, Pigou and others consider it the 'ultimate principle of taxation'.[12] However, though this doctrine sets the objective of least aggregate sacrifice by the taxpayers, 'there is no generally accepted view as to what it involves in terms of individual sacrifice.'[13] In this case, if we assume that the marginal utility schedules are identical and sloping downwards, it follows that the taxation would begin with the highest income and once that income is lopped of to the next highest income, both incomes start sharing the taxation equally, and so on. In the end, all taxed incomes are left equal while all non taxed incomes are smaller than the taxed ones. It has been suggested that this principle would be realized by taxing only the largest incomes, cutting down all above a certain level to that level, while exempting all below that level. Thus, all incomes above, say, ₹2,50,000 a year, would be reduced by taxation to that level, and no one, whose income was less than this, would be taxed at all.[14]

It is also clear that with these assumptions, this principle necessarily leads to progressive taxation, a conclusion which is sometimes erroneously supposed to be applicable to other cases as well.

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It is well known that utility cannot be measured and interpersonal comparisons of utility are not possible. On this basis, some writers insist that the above conclusions are not scientifically based. In the absence of any relevant information, it is not possible to prove that the best way of apportioning tax burden would be to enforce equal after-tax incomes. However, Lerner[15] shows that even when the marginal utility schedule are not precisely known, and even when interpersonal comparisons of utility are not possible, still we can conclude that a *shift* towards equality in income distribution would increase the aggregate satisfaction of the community. Lerner bases his argument on the assumption that in the absence of definite information, the *probability* of a loss in aggregate satisfaction may be taken as high as that of a gain in aggregate satisfaction when income is redistributed. However, in his analytical framework, if we move from equality towards inequality, the *amount* of a probable loss is more than the probable gain (and therefore, the amount of probable gain exceeds the amount of probable loss if we move from inequality towards equality). As a result, the society increases its probable aggregate satisfaction when incomes are distributed equally. Lerner's conclusion, however, rests on *probability argument* only and cannot be taken to be *objectively conclusive.*

Pigou says that the right goal of every government is the maximum welfare of the community as a whole. And 'in the special field of taxation, this general principle is identical with the principle of least sacrifice.'[16]

It is noteworthy that it is not possible to directly apply this principle in the field of business taxation because, in the final analysis, incidence of business taxation is shifted to the business owners and/or consumers. Also, it is extremely difficult to structure indirect taxation in accordance with the ability to pay principle, because an individual's ability to pay tax has hardly any direct relationship with his consumption pattern.

4.3.3 Neutrality in Taxation

Tax neutrality is a widely accepted concept in principle. We notice that, in practice, tradeoffs between different concepts of neutrality and different goals can be difficult to resolve. But in several cases this concept can provide a useful way to cut through some of the debates about tax policy and identify a more economically efficient way to organize the tax system.

At their best, taxes are broad-based and neutral, meaning that they do not favour certain kinds of economic activity over others. But in practice, taxes often end up being non-neutral. Well-meaning legislators decide, for example, that essential needs should have lower taxes in order to make them just a little bit less of a burden on the poor.

Adjustments to a small tax don't really make poverty much less burdensome. Raising incomes through general prosperity or reduced taxes is a much more effective way to fight poverty than arbitrarily adjusting the after-tax prices of some goods by five percent and others by zero percent.

Let us understand the concept of tax neutrality through the following areas:

1. The concept of neutrality is the underpinning of the canonical goal of tax reform: achieving a broader base with lower rates.
2. To the degree that policymakers depart from neutrality to achieve specific goals like encouraging homeownership or childcare, it is generally better to implement these measures through refundable tax credits rather than deductions.

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3. The tax treatment of healthcare is the most economically important way that the tax code departs from neutrality. Reforms to this tax treatment can make it more neutral with regard to some decisions (like how much insurance to purchase) while providing more incentive to purchase basic insurance.
4. The tax code also departs from neutrality to discourage specific activities, like smoking and alcohol consumption. In these cases, the tax should be set to capture the cost of the activity that individuals do not take into account. This is also the principle underlying carbon taxes and cap-and-trade systems to address climate change.
5. Although the proper level of capital taxation is highly controversial, there is little or no justification for the widely varying rates on different forms of capital income. Establishing more uniform rates would improve the allocation of investment and finance, reduce wasteful tax avoidance expenditures, and ultimately enhance the productivity and stability of the economy.

The primary purpose of the tax system is to raise the revenue needed to pay for government spending. This should be achieved without distorting the decisions that individuals and firms would otherwise make for purely economic reasons. In addition to distorting choices, non-neutralities in the tax system also lead people and firms to devote more socially wasteful effort to transforming the form or substance of their activities to reduce their tax payments, for example by hiring lawyers and accountants to structure financial transactions in a manner that minimizes tax liability. In some cases deviations from a neutral tax system are unavoidable. It is widely agreed that tax payments should increase with some measure of well-being, like income, consumption or wages. One inevitable consequence of this agreement is that the market consumption of goods and services will be taxed, either directly (as in a consumption tax) or indirectly (as in an income or wage tax, both of which tax the money used to purchase consumption goods). Time spent outside of work, what economists label as 'leisure,' is not taxed. As a result, people will consume relatively more leisure—which is equivalent to a reduction in labour supply. Whether this is a quantitatively large or important effect is another question, but at a conceptual level this is a way that the tax system departs from the neutral ideal. In other cases, deviations from a neutral tax system reflect the goals of policymakers. The tax system is designed to encourage home ownership, contributions to charity, health insurance, and higher education and to discourage smoking and drinking alcohol. Whether these goals are all appropriate or the tax system is the best way to achieve them is another question.

4.4 TAXABLE CAPACITY

The concept of taxable capacity is an expression of the common belief that there is always an upper limit of tax receipts, though there has never been an agreement as to quantum of this limit. The disagreement is fed by the fact that the concept is intimately associated with the totality of circumstances faced by the country, the overall budgetary policy of the government, the range and depth of government services (including provision of merit and other public goods), the productive efficiency of government expenditure, and the purpose for which this concept is used by an analyst or a policy maker. It is for these reasons, that in different countries, the perceived tolerable upper limit of percentage of tax receipts to GDP varies from country to country and, over time, even for the same country.

The nature and contents of taxable capacity of an economy are also closely associated with the place accorded to the State *vis-a-vis* rest of the economy. The

Check Your Progress

4. What is a taxation theory?
5. Name some of the well-known advocates of the ability to pay theory.
6. 'Income may be divided into two parts.' Name the two parts.
7. What is the best way of apportioning tax burden?

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economists are known to make a choice between two alternative assumptions. Some assume that the State is an integral part of the economy so that its tax receipts only represent a transfer of resources within the economy. Others assume that the State is something external to the economy and, therefore, its tax receipts cause an equivalent loss of resources to the 'economy'.

Significance of Taxable Capacity

Knowledge of taxable capacity is of immense use to the government and fiscal theorists for budget planning and resource mobilization. The knowledge of taxability of nation helps the government in differ-ent ways, under different circumstances.

The knowledge of taxable capacity is of immense use, during extraordinary situation like war. The idea on taxable capacity helps the government to know how much money can be collected from the people to finance extraordi-nary expenditure during war.

Similarly idea about taxable capacity helps the government in allocating tax burden rationally among dif-ferent sections of the community, especially between rich and poor. The knowledge of taxable capacity is useful for mobilizing economic resources needed for financing development projects like transport, irrigation, telecommunication, etc.

Even in normal situation, the knowl-edge of taxable capacity is highly useful to meet unforeseen circum-stances like flood, earthquake etc., which necessitate the incurring of huge public expenditure.

Moreover, knowledge about the limit of taxable capacity prevents the government from imposing necessary taxes which will hamper productive system of the economy. Knowledge about the relative taxable capacity of different units in a federa-tion will help to reduce regional imbalance through central resource transfers.

It also helps to make a comparative analysis of the burden of taxation between different states in a federation. Lastly the con-cept of taxable capacity is of much use to the fiscal theorists and political process to critically analyze the financial relations between the center and units in a federation.

4.4.1 Absolute and Relative Taxable Capacity

The concepts of taxable capacity and ability to pay go together, but the two are not equivalent to each other. The ability to pay is used for apportioning aggregate tax liabilities amongst taxpayers. In it, tax liability of taxpayers need not equal their absolute capacity to pay. Also ability to pay is always estimated with reference to the existing set of circumstances and its repercussive effects are ignored. Taxable capacity, on the other hand, refers to the maximum tax which can be collected from a particular taxpayer or a group of taxpayers under consideration. *In this sense, it is known as the absolute taxable capacity* and may be estimated for the entire economy, a region, an industry, a group of individuals, or a single individual. In contrast, in estimating relative taxable capacity, a comparison is made of the absolute capacities of two or more taxpayers or their groups. It is obvious that both concepts have their respective problems without any satisfactory solution.

In economic literature, we find a mention of several proportions of GDP as a measure of absolute taxable capacity of the society as a whole. Obviously, no given proportion can have a universal validity. Moreover, these proportions are based upon the assumption that the government would always have a balanced budget. It is noteworthy, however, that the budget itself affects the taxable capacity of the taxpayers both by its size and composition.

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Absolute taxable capacity refers to 'the maximum tax' which can be collected from taxpayers. Assuming that the State has an absolute power to tax away the income and property of the citizens, this absolute capacity gets equated with GDP of the country. However, such an extreme interpretation leads to impractical policy inferences. Every government faces pressures from several vested interests and has to accommodate them to some extent. The decision makers and functionaries of the government itself are not expected to vote for their own complete expropriation. Similarly, taxing away entire GDP by the government means that it is to assume the responsibility of satisfying the entire demand for goods and services by the society, take appropriate decisions in this regard and implement them. The ability of the government to perform this task efficiently is questionable. However, even a partial attempt of the government to do so is bound to have an indeterminable impact upon the country's GDP.

Relative taxable capacity refers to the comparison between the absolute taxable capacity of different tax payers, or industries or groups of tax payers. Here, the concept of ability to pay comes into the picture.

Economists have also examined the possibility of several her measures of absolute taxable capacity based upon criteria which cannot be quantified and have no practical relevance. These criteria include those of 'tolerable limits', 'minimum resistance by taxpayers', 'minimum ill effects', and the like. However, strangely enough, these measures tend to ignore the expenditure needs of the government itself, impact of its expenditure and budgetary policies, level of its administrative efficiency, cost of compliance to the taxpayers, the impact on economic incentives of investors and producers, and so on. This concept also ignores the very relevance of collecting so much of tax revenue by the government as also the relevance of other policy instruments available to the government including public debt operations and the like.

Absolute taxable capacity, in whatever way defined and estimated, is not a constant quantity. It is deeply affected by several short term and long term factors. The problem is that it is not possible to quantify the effect of such variables and changes in taxable capacity cannot be estimated. It follows that there can be no measure of absolute taxable capacity of an individual taxpayer, or a group of taxpayers. ***It is only their relative taxable capacity which can be estimated, albeit imperfectly, by indexing the ability to pay of taxpayers.*** It is however, instructive to take note of the fact that though we cannot measure taxable capacity as such, it is affected by several short term and long term factors.

4.4.2 Factors Determining Taxable Capacity

There are two kinds of factors that determine taxable capacity.

1. Short-run Factors

A host of short-term factors affect taxable capacity of the taxpayers. Income and wealth distribution has an important bearing upon the community's taxable capacity for two reasons. First, it enhances the capacity of the rich and decreases the capacity of the poor sections. In extreme cases, inequalities maximize taxable capacity for a given GDP. Second, taxable capacity of richer sections goes up because for them marginal utility of income falls. Another important set of factors determining taxable capacity relates to the pattern, structure, rates, and mode of collection of taxes. For example, indirect taxes are expected to be psychologically less burdensome. Taxes on unearned increments, windfalls and capital gains are not expected to be resisted less by the

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taxpayers. Taxpayers are more willing to pay if the timing and mode of tax payments are less troublesome. During wars and other national emergencies, taxpayers are ready to pay more. Similarly, the expenditure policy of the government and the connected issues have a strong bearing upon what the taxpayers are willing to pay.

2. Long-run Factors

Similar variables operate in the long-run also. If the authorities are helping the economy in capital accumulation, provision of social overheads, improvement in productive efficiency of labour, adoption of better techniques of production and so on, then its taxable capacity will also increase. Monetary and fiscal policies of the government, which bring about economic stability with a high level of income and employment, will definitely add to the taxable capacity of the society. Governmental policies in the field of foreign trade, capital flows, and technology transfers are other factors which profoundly affect the country's taxable capacity.

It should be remembered that of the two concepts of taxable capacity, the relative one is administratively more feasible. Actually, in practice, every government uses it in some form or other while assessing respective tax liabilities of taxpayers. In contrast, the concept of absolute taxable capacity is not at all quantifiable and should be totally discarded.

4.4.3 Usefulness of the Concept

To see whether the concept of taxable capacity has any relevance in practice or not, we must explicitly recognize that the basic problem before the State is not to assess what the private sector should or can pay to the State in the form of taxes. Rather, the primary concern of the State should be the totality of its budget of which tax revenue happens to be only one component. The State, equipped with adequate knowledge of the responsiveness of the private sector should formulate an optimal budget—a budget that is expected to yield maximum possible welfare for the society as a whole. Where precise and quantifiable objective criteria are not available, use of widely accepted criteria and their numerical values should be used. The budget makers should not confine themselves only to the criteria of an illusive 'taxable capacity'. Instead, they should concentrate upon achieving what they believe is an optimal budget and work out its details. Such a budget should simultaneously lay down level and composition of public expenditure, details of tax and non-tax revenues, and public debt policies including borrowings from the central bank of the country. The optimal budget also takes into account the effects of its operations and policies on employment, price stability, balance of payments position, generation of income and output, income and wealth distribution. However, we must concede that given a decision to collect a certain amount tax revenue, the concept of relative taxable capacity has still meaning from the standpoint of equity of division of tax burden. In spite of its limitations, this concept needs to be kept in mind while formulating tax proposals and their details.

Use of the Concept in India

In India, as in most other countries, broad contours of the concept of relative taxable capacity are used in the formulation of detailed tax proposals. These contours are laid down without insistence on the precise quantitative estimates of relative taxable capacity of taxpayers. Instead, use is made of widely acceptable proxy variables, like levels of income, consumption and wealth. It is noteworthy that even an imprecise measure of relative taxable capacity is better than totally discarding it.

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Our direct taxes run in two parallel streams, namely, personal taxation and business taxation. Personal direct taxes have slab based progressive rates with initial threshold exemption limits. Corporate taxes discriminate in favour of small businesses and those which are employment-intensive and/or contribute towards reduction in regional disparities.

Indirect taxes are by their very nature regressive and run counter to taxable capacity of taxpayers. However, the structure of our economy compels us to overwhelmingly rely on indirect tax receipts. Moreover, the proportion of indirect taxes is bound to increase further in the foreseeable future on account of extensive use of service tax. The regressiveness of our indirect taxes is sought to be reduced by various measures like exemptions or lower rates for necessities and unprocessed items of mass consumption. However, switch over to GST is bound to more than counterbalance this trend.

Our country is confronted with the problem of inter-regional economic disparities and there is a general agreement that these should be reduced if not totally eliminated. The Finance Commission can help in solving this problem while formulating its recommendations on transfer of resources from the Cent to the States. To this end, some Finance Commissions have recommended specific purpose grants. In addition, an occasional use of some indicators of States' relative taxable capacities has also been made. The Fifth Finance Commission used a simple ratio of tax revenue (XR) to State Domestic Product (SDP) to measure 'tax effort' of the State under consideration, thereby assuming that its taxable capacity is a given proportion of its SDP. The Seventh Finance Commission measured tax effort by regressing tax revenue on SDP in a linear model. The Planning Commission also measures tax-effort as a ratio of tax revenue to SDP. In each case, relative taxable capacity of two States is taken to be equal to the ratio of their SDPs.

This measure has some obvious deficiencies. It ignores other relevant variables which determine a State's taxable capacity. These variables include, amongst others, (i) degree of urbanization, (ii) degree of industrialization, (iii) degree of monetization of the economy, (iv) distribution of income and wealth, (v) consumption pattern, (vi) administrative efficiency, and (vii) exemptions, rate schedules and coverage of different taxes. The factor of progressivity, in particular, makes SDP a very poor representative of a State's taxable capacity.

The Ninth Finance Commission mentioned two alternative approaches to estimate relative taxable capacity of States and their tax effort, namely, (a) the Aggregate Regression (AR) Approach, and (b) the Representative Tax System (RTS) Approach.

1. Aggregate Regression (AR) Approach

It is a regression technique in which the determined (explained) variable is taken as either total tax revenue or as per capita tax revenue. The explanatory (or independent) factors are some selected 'capacity indicators' such as per capita income or consumption, the level of urbanization, the level of monetization, interpersonal distribution of income, and the structure of the economy. This multiple regression may be of linear or log-linear variety. The values of the regression coefficients indicate the average effective rates of tax. Taxable capacity of a State is then estimated by substituting actual values of the explanatory variables in the estimated equation.

AR approach has both merits and demerits. On the positive side, we may mention that it can be used with limited disaggregation of data, and it takes into account interdependence of tax bases. The effect of the size of tax base on tax revenue is also

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taken care of. On the side of demerits we note that the regression estimates are not derived by relating tax revenue to either actual tax bases or their proxies. Instead, it is related to *tax-capacity indicators* which are also macro ones. And if tax-wise regressions are estimated and added, the inter-dependence of tax-bases gets ignored.

2. Representative Tax Systems (RTS)

In this approach, relative taxable capacity of all States is estimated for one tax at a time. Total yield from the selected tax is divided by the total value of the tax base for all States put together. This gives us an average effective tax rate. This all-State average is then multiplied by the tax base of an individual State to estimate its taxable capacity for the given tax under consideration. This method also enables us to estimate the total revenue which all the States put together can be expected to collect from the tax under consideration.

This method has the drawback of assuming that the tax effort of all the State put together (that is the total tax revenue of all States from a given tax) is equal to their aggregate taxable capacity for the said tax. In reality, a particular tax (such as a tax on agricultural income) may be under-exploited or over-exploited. This technique also ignores inter-State variations like those of industrialization and urbanization. Moreover, it is extremely difficult to estimate the bases of individual taxes and for each State separately.

4.5 REGRESSIVE, PROPORTIONAL AND PROGRESSIVE TAX

Direct taxes can be classified on the basis of the degree of progression or distribution of their burden on the taxpayers. According to this classification, taxes may be classified as proportional, progressive, regressive and digressive. A tax is called progressive when, with increasing income the tax liability not only increases in absolute terms, but it also increases as a proportion of the income. If the tax liability increases in the same proportion as the increase in the taxpayer's income, it is termed as proportional taxation. If the tax liability as a proportion of taxpayer's income falls with the increase in tax-payer's income, it is termed regressive taxation. In regressive taxation, the absolute tax liability will, of course, increase. In the case of digressive taxation, there is a declining degree of progression as the tax base increases. We shall discuss these taxes in detail.

4.5.1 Proportional Tax

In the proportional tax system, all incomes are taxed at a single uniform rate and it does not matter if the taxpayer's income is high or low. For example, if the rate of income tax is 10 per cent, everybody will have to pay the income tax at this single fixed uniform rate as there is no change in the rate of tax with the increase or decrease in the taxpayer's income. Proportional tax system is simple and one can understand it without difficulty. It has been illustrated in Table 4.1.

Check Your Progress

8. What is the concept of taxable capacity?
9. What does absolute taxable capacity mean?
10. Name the two alternative approaches to estimate relative taxable capacity of States and their tax effort as mentioned by the Ninth Finance Commission.

Table 4.1 Proportional Tax System

Tax Base (Income in rupees)	Rate of Income-tax (per cent)	Amount of Tax (in rupees)	Income after Tax (in rupees)
100	10	10	90
1,000	10	100	900
10,000	10	1,000	9,000
1,00,000	10	10,000	90,000

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The above table shows the incomes of four individual taxpayers and the amount of tax they have to pay. The rate of tax which all will be required to pay is 10 per cent of their income. Before the tax, the relative status of the four persons is such that the second person has income ten times higher than the income of the first person, the third person has an income which is ten times higher than the income of the second person, and the fourth person has ten times higher income than the income of the third person. After the tax has been imposed and the tax amount has been collected by the government, the relative status of the persons remains unchanged. Thus, by definition, a proportional tax rate schedule can be established at any level provided the rate remains constant at all income levels. Proportional tax has the following characteristics.

- It is fixed and its proportion does not change with the change in the taxpayer's income and wealth.
- It is fixed in amount and it is never levied in varying percentages.
- Tax does not alter the proportion of difference of income after the payment of tax has been made. In other words, the relative status of the individual taxpayers with respect to income and/or wealth remains unchanged even after the payment of a proportional tax.

Advantages and Disadvantages of Proportional Tax

The main arguments which have been advanced in favour of proportional tax are listed below:

- It is easy for every individual to evaluate the total amount of tax he has to pay. The taxpayers can easily calculate the amount of tax they have to pay to the government.
- The proportional tax is simple and easy to understand. Even a person with an ordinary intelligence can understand its implications without any difficulty.
- There is no change in the existing distribution of income and wealth in society as a result of the levy of proportional tax because all taxpayers pay the tax at a single uniform rate. It is neutral with respect to income and wealth distribution. Consequently, it involves no structural change in the socio-economic set-up of the country.

The main arguments advanced by the critics against proportional tax are:

- In the case of proportional tax, the burden of taxation falls more heavily on the poorer sections of society. The reason for this is that as the income of an individual increases, the marginal utility of money for him diminishes. In other words, the marginal utility of money for the rich is lower than is the marginal utility of money for the poor. If the rich and the poor are taxed at the same rate, obviously the poorer sections of society will be making greater sacrifice than the richer sections. Consequently, the proportional tax system does not satisfy the important canon of equity and justice in taxation.
- This system of taxation does not reduce the inequalities of income and wealth, rather it enhances these inequalities and increases the gap between the haves and have-nots.
- It does not satisfy the principle of taxable capacity.
- It contributes less to the public exchequer.

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4.5.2 Progressive Tax

A progressive tax is a tax which varies with the change in the income of the individual and the rate of tax becomes gradually higher for the higher incomes and lower for the lower incomes. It does not provide for a fixed and uniform percentage for all the income levels. If the income of the taxpayer increases, the rate of tax also increases and if the income decreases, the rate of tax also decreases. According to Taylor, 'as taxable incomes rise under progressive taxation, the effective rate of tax rises for marginal increments of income subject to higher tax rates. This means that the rise in tax liability is more than proportional to the rise in income. Conversely, as personal incomes fall, the effective rates of tax fall and the decrease in taxes is more than proportional to the decrease in income.' A progressive tax rate is one in which the rate of tax increases as the base (income) increases. Recognizing that the amount of tax paid is the result of multiplying the base to the rate, in a progressive tax the multiplier increases as the multiplicand increases. Accordingly, the amount of tax paid will increase at a higher rate than the increase in the tax-base. This case has been illustrated in Table 4.2.

Table 4.2 Progressive Tax Rate

Taxable Income Group (in rupees)	Taxable Income of Individual (in rupees)	Rate of income tax (percent)	Amount of tax (in rupees)	Post-tax Income of Individual (in rupees)
0–1,000	1,000	–	–	1,000
1,001–2,000	2,000	15	300	1,700
2,001–3,000	3,000	20	600	2,400
3,001–4,000	4,000	25	1,000	3,000

From the above table, it is evident that an exemption limit is fixed under a progressive tax. Consequently, all those people whose income is less than the prescribed limit of exemption are granted exemption from the payment of tax. It is also evident that the rate of tax goes on increasing with the increase in income. The higher income group tax-payers are taxed at the progressively higher rates. For the purpose of taxation, individual incomes are divided into different tax slabs. For each income slab, there is a different rate of tax and this rate of tax goes on increasing with the increase in income. It is for this reason that a progressive tax is also sometimes referred to as a *graduated tax.*

Advantages of Progressive Tax

Progressive taxation has become popular in all the nations of the world today. The reasons for its universal popularity are the benefits which accrue to the community from it. The important advantages of progressive taxation have been explained.

- **Progressive tax is based on the ability to pay principle:** A very strong case for progressive tax exists in terms of the ability to pay and the corresponding sacrifice which taxation involves. This argument is based on the assumption that the marginal utility of income falls as income rises. Since the ability to pay increases in direct proportion to the increase in income, the rate of tax increases with every increase in the level of income.
- **Progressive tax promotes equality of income and wealth:** The distribution of income and wealth in society can be made more equitable under progressive taxation because the rich are required to pay the tax at a higher rate than the poor people.
- **Progressive tax is productive:** The government can increase its income substantially through progressive taxation. It can bring about a sizeable increase in its income through the increase in the tax rates during a period of financial crisis.
- **Progressive tax is economical:** Progressive taxation is economical in the sense that the government can bring about a sizeable increase in its income through increases in the rates of tax without any substantial increase in the cost of tax collection.
- **Progressive tax is elastic:** Progressive tax has the characteristic of elasticity since with minor changes in the tax rates substantial changes can be brought about in the tax income of the government.
- **Social justice:** Progressive tax can also be advocated on the basis of social justice which manifests itself in the form of taxing the people according to their ability to pay. Since progressive tax rate schedules bring about equal marginal sacrifice on the part of the taxpayers and since through that approach the whole tax system moves toward the principle of least aggregate sacrifice, such tax system is just as between the individual taxpayers and for the society as a whole.

Disadvantages of Progressive Tax

Following are the main disadvantages of progressive tax:

- **Non-measurability of utility:** The case for progressive tax has been disputed on the ground of non-measurability of the utility. Marginal utility of net incomes of different persons cannot be measured in such a way so as to permit precise comparisons between individuals. Consequently, it is impossible to discover any faultless objective standard of progression or graduation of tax rate on the basis of subjective utility.
- **Progressive tax ignores the benefit-received principle:** The benefit-received theory of taxation does not favour a progressive tax rate especially when we consider the welfare activities of the government. According to this approach, the government should tax the poor people more on account of the benefits received from its welfare activities. Even if one ignores the welfare functions of the state, it becomes a point of debate whether the rich or the poor derive the maximum benefit from the state activities.
- **Progressive tax discourages capital formation in the country:** The degree of progressive taxation has an important bearing on the process of saving and capital formation in the economy. The critics of progressive taxation state that it is only the rich who can save and, therefore, if they are taxed more heavily than the poor, the saving potential will either be lost completely or reduced substantially and the process of capital formation will be adversely affected.
- **Scope for tax evasion:** Under the system of progressive taxation, there is always a considerable scope for tax evasion and tax avoidance. The taxpayers try to evade the payment of tax by presenting a false statement of accounts before the tax authorities and by finding legal loopholes in the tax provisions.

In spite of the above defects, the system of progressive taxation is now widely recognized as desirable. The main reason for this is that under progressive taxation it becomes possible to eliminate or reduce the glaring economic inequalities in society.

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This was why Alfred Marshall and Arthur Cecil Pigou extended their strong support to progressive taxation. John Maynard Keynes also emphasized the important role of progressive taxation as a means for increasing the volume of employment in society.

Progressive taxation cannot, however, be applied to all taxes. It is essential to select proper taxes, rates and exemptions so that arbitrariness which can always be levelled against any progressive tax is reduced to the minimum. The principle of progressive taxation has only limited applicability in an underdeveloped country on account of the limited scope of direct taxation. In an underdeveloped country, the finance required for economic development cannot be raised only through direct taxation of income and wealth and the main reliance is placed on indirect taxation.

4.5.3 Regressive Tax

In regressive taxation, higher the income of a taxpayer, smaller is the proportion of his income which he contributes to the government in the form of tax. Thus, a regressive tax is the opposite of the progressive tax. Under this system of taxation, the poorer sections of society pay taxes at higher rates than do the richer sections. As the income of an individual increases, the rate of tax diminishes. A schedule of regressive tax rates is one in which the rate of tax decreases as the tax base (income) increases, the multiplier decreasing with the multiplicand increasing recognizing that the tax payable is the result of multiplying the tax rate with the tax base. The system of regressive taxation has been shown in Table 4.3.

Table 4.3 System of Regressive Taxation

Tax Base (in rupees)	Rate of Tax (per cent)	Amount of Tax (in rupees)	Income after Tax (in rupees)
1,000	15	150	850
2,000	10	200	1,800
3,000	7	210	2790
4,000	6	240	3,760

Thus, in a regressive system of taxation, the tax rate falls as the tax base (income) increases. The absolute amount of tax payable may, however, increase but at a decreasing rate and it may also decrease. Since this system of taxation is not equitable, it has been abandoned everywhere. The salt tax which was imposed by the British government prior to 1947 in India, was an example of regressive taxation because its burden fell more heavily on the poorer sections of society.

Digressive Tax

This tax can also be called a *mild progressive tax.* In a digressive tax, the rate of progression does not increase in the same proportion as the increase in income. The rate of tax increases up to a certain limit beyond which a uniform rate is charged. Thus, digressive tax is a blend of the progressive and proportional taxation. The result of this tax is that higher income groups make sacrifices which are less than the lower income groups.

From the above analysis, we can conclude that a progressive system of taxation is the best system of taxation. Now-a-days, most advanced countries of the world follow this system of taxation. India has also gradually adopted the progressive system of taxation.

Check Your Progress

11. Define regressive taxation.
12. List two characteristics of proportional tax.
13. What is a progressive tax?

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4.6 OVERVIEW OF INDIAN TAX SYSTEM

Taxation occupies a prominent position in every government's policy framework. Academicians, analysts, administrators and legislators have been paying an uninterrupted attention to its various dimensions including the response of economic decision makers (individuals, households, businesses, etc.) to changes in its framework and ingredients. Since it is next to impossible to have an ideal tax system on account of various hurdles including those posed by inherent dynamism of most economies, the debate regarding the exact format of an ideal tax system continues unabated. Those who are in favour of a market-oriented economic system, advocate a few basic objectives which a tax system should aim at.

- One, it should be neutral in its effects. Factually, however, it is impossible to achieve this objective because of the sheer size of the public budget and its impact on the demand and supply flows.
- Two, to the extent possible, it should be equitable, that is, its burden upon taxpayers should be in proportion to their respective paying capacities.
- Three, every tax system has its own economic cost for the country. This cost should be minimized including the cost of compliance for the taxpayer.
- Four, to ensure that changes in demand and supply flows are smooth and not disruptive, tax system should be stable with only infrequent and essential changes.
- Five, the system as a whole should be transparent and rule-based so that it does not result in avoidable litigation and other problems, including those of tax avoidance and tax evasion.

Hurdles: For a country like ours, devising a suitable system of taxation poses a host of problems and it is not easy to solve them to an acceptable level of satisfaction. In contrast with developed countries, a country like ours faces several hurdles in the task of structuring an optimum system of taxation.

- The first problem relates to the choice of an optimum proportion of (Tax Revenue/ GDP). A textbook prescription, supported by most economists, is that this ratio should be increased to a level as close as possible to that prevailing in developed countries. However, while making this recommendation, a few essential facts are ignored.
  - The level of tax receipts cannot be decided without first deciding the level of public expenditure. Moreover, while in developed countries, the proportion of wasteful public expenditure is very low, it is just the opposite in India. Consequently, the level of optimum tax revenue cannot be decided satisfactorily even when the level of public expenditure has been decided.
  - In India, in addition to very low productivity of public expenditure, its composition is also highly skewed. It is neither in harmony with social priorities, nor in conformity with the objective of economic growth. Thus, for example, while several fanciful projects are undertaken, basic necessities of the people like clean drinking water, nutritious food, education, health services, communication, roads, transport, and housing remain neglected. Similarly, very low priority is accorded to the provision of infrastructure without which a rapid and sustained economic growth is not possible. Instead, policies that are pursued encourage conspicuous consumption.

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- In the context of Indian fiscal federalism, the problem of division of taxation powers between different layers of government also crops up. Indian Constitution has tried to solve it in the best possible manner. However, some difficulties still remain. First, the local bodies are still not assigned, in their own right, any taxation powers. Second, the arrangements have not been worked out with complete objectivity and responsibility. Third, our Constitution does not allow taxation of the same tax base by both the Centre and states. However, with changing circumstances, a need has arisen for replacing most indirect taxes into a single tax on goods and services. The details of this new tax regime are being worked out, and it is expected to be operative in the near future.
- In our country, choice of taxes is often guided by conflicting objectives, which include several aspects of equity (inter-regional inter-sectoral, inter-individual, etc.), employment generation, capital formation and so on. In the process, questions crop up relating to the choice between direct and indirect taxes, the degree of progression, exemptions and rebates and so on. In recent years, another constraint has emerged in the form of international commitments.
- Moreover, in the process of meeting a multiple set of objectives, our tax system has become very complex, while the need is to simplify it.
- It is noteworthy that steps are being taken to bring about a radical transformation of our tax system. Thus, the contents of a proposed code for direct taxes are being debated and are likely to be adopted in the near future. Similarly, steps are under way to replace service tax and a large number of taxes on goods by a single integrated tax on goods and services (GST).
- In pursuance of its commitment to reform the tax system, the GOI constituted the 'Tax Reforms Committee' in August, 1991 under the chairmanship of Prof Raja J Chelliah.

4.6.1 Features and Assessment of the Indian Tax System

The features of Indian tax system should be studied with reference to its socio-economic objectives and its assessment should also be attempted in a similar manner.

1. Division of Tax Powers between Centre and States

Our Constitution does not allow concurrency of taxation powers between the Centre and States (that is, a given tax base cannot be taxed by both the Centre and States). Moreover, local bodies are assigned taxation powers by States or, if they are in union territories, by the Centre, out of the State List for their respective territorial jurisdictions. This feature of non-concurrency was incorporated in our Constitution so as to satisfy three criteria of ***uniformity, economy, and efficiency of the tax system as a whole.***

In this context, the following observations are noteworthy.

- The Centre-State division of taxation powers provided in our Constitution creates a vertical fiscal imbalance in favour of the Centre, and this imbalance has an inherent tendency to widen further over time.
- Criteria of uniformity, efficiency and economy dictate that, with the passage of time, States should surrender some tax heads in favour of the Centre. For obvious reasons, States are opposed to this economic principle.

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- Our tax system was bound to acquire increasing complexity with the growth and diversification of our economy. In their pursuit for augmenting tax revenue, authorities found it both necessary and possible to not only restructure the existing taxes but also introduce several new ones. In the process, our tax system has become very complex and is in dire need for simplification. It is noteworthy that, comparatively speaking, the Central tax system became more complicated than that of the States. However, as noted above, some degree of simplicity is likely to be achieved in the near future with the adoption of a code for direct taxes and an integrated GST.
- Till recently, most State taxes, including excise and sales taxes, lacked inter-state uniformity. This was hindering unification of the segmented Indian market into a single integrated one. Now a process has been set in motion to remove this defect. For achieving an all-India integrated market, a beginning was made in 1998 when Chief Ministers of States agreed to replace State sales tax with VAT. By now, all States have switched over to VAT format. Similarly, now most Central excise duties are VATABLE and have been converted from specific to ad valorem ones. In addition, the phasing out of Central Sales Tax also started on the above-said date. The States have experienced an increase in their revenue receipts with the introduction of VAT, partly on account of reduced tax evasion and partly on account of better tax compliance by traders. Next stage of fruitful evolution of indirect tax regime is the introduction of GST.

2. Equity

Officially, our tax system is not regressive, and it does not add to regional and inter-sectoral inequities. However, this claim can be easily refuted.

- The authorities claim that the *rates* of direct taxes are quite progressive, while in indirect taxation, most basic necessities are exempt and luxuries are taxed at higher rates. In practice, however, the criterion of equity is grossly violated by large scale evasion of both direct and indirect taxes.
- By feeding inflation, indirect taxes strengthen inequalities.
- Moreover, our tax provisions are loaded in favour of capital intensive techniques, thereby discouraging generation of employment, particularly in rural areas. This not only adds to inequalities, through widespread unemployment and underemployment, but also forces migration of labour to urban areas with all its concomitant problems and consequences.
- It is commonly believed our tax system is **inequitable as between different sectors of the economy and geographical regions.**

3. Adequacy

A tax system may be rated as adequate if it is sufficiently buoyant and elastic and if it is able to meet the expenditure needs of the authorities. It is seen that, on the whole, our tax system meets the first test but fail in the second. It has exhibited a good deal of **buoyancy** and tax revenue as a proportion of GDP has registered an upward trend. The tax system has also exhibited **elasticity,** when we note that, year after year, the tax revenue has increased substantially through variations in coverage and rates of taxation. Even State taxation satisfies the joint criterion of buoyancy and elasticity.

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tax is justified on account of a growing share of services in our GDP. Service tax has been added to the Union List and its collection and appropriation is regulated by law made by Parliament. Successive Central budgets have been extending the coverage of service tax and raising its rates. In the Budget for 2012–13, the basic rate of service tax was raised from 10 per cent to 12 per cent. A small negative list of services was drawn and the coverage of the tax was extended to all services not mentioned in the negative list.

States are also keen to have the power to tax this lucrative source of revenue. Accordingly, the incoming GST model accommodates this demand of States. Currently, only taxation of goods is vatable. The introduction of GST would make taxation of services also vatable.

10. Reforms in Excise Duties since 1996–97

GOI adopted a phased policy of complete overhauling of the structure of Union excise duties, and the process of this overhauling is now complete. It was hoped that a reformed excise duty regime would be able to boost productivity, cut costs, remove distortions in resource allocation, reduce tax evasion, and bring in additional revenue. The components of this restructuring included:

- VAT format of duties
- To the extent possible, shifting them to *ad valorem* basis
- Reducing the number of classifications of taxed goods
- Reducing the number of tax rates
- Reducing the number of slabs of special duties
- Removing exemptions to the extent possible, particularly sector-specific and end-use related ones
- Extending concessions to small scale industry
- Simplification of the assessment procedures

To begin with, the Centre aimed at having only three rates of 'normal' duty, namely, the central rate, the merit rate and the demerit rate. The Budget for 2000–01 shifted to a single, ***modvatable, rate of Central Value Added Tax (CENVAT)*** of 16 per cent. The Stated objective of this step was to provide long-term stability, remove uncertainties and eliminate disputes regarding classification. Changes introduced in successive budgets eventually resulted in one general CENVAT rate or 'mean rate' of 8 per cent ad valorem. The budget for 2009–10 took further steps to revise central excise duty rates to this mean rate. Currently, the Centre is pursuing the policy of modifying duty rates for only those items which need specific attention for some reason. This policy is expected to facilitate the objective of introducing a GST both at national and State level.

11. Reforms in Customs Duties

For over four decades, we had pursued a policy of protecting domestic industry and agriculture with a combination of quantitative and tariff restrictions on imports. But the introduction of the era of liberalization and globalization on the one hand and our commitments to the WTO on the other led to basic changes in the regime of customs duties as well. We committed ourselves to do away with quantitative restrictions and to reduce our tariff duties to ASEAN levels in a phased manner, tempered with the need to protect our interests in the face of changing global circumstances like the crisis of 2008

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and enhancing the competitiveness of Indian exports. In addition, successive budgets have been reducing the duties for specific items or exempting them totally.

12. Direct vs. Indirect Taxes

It is conventional to classify tax receipts into those of direct and indirect taxes and use them as inputs for fiscal policy. However, there is no universally valid optimum proportion of these two categories of tax receipts. Their target proportion depends upon an assessment of ground realities and perception of the decision-makers. In Indian context, some of the noteworthy ground realities are as follows:

- In India, the division of tax-heads between the Centre and States is such that State taxes are overwhelmingly indirect while the Centre is having a fair proportion of both direct and indirect ones.
- As of now, Indian economy offers only a limited scope for raising additional revenue through direct taxation and more so in the case of States.
- Our Constitution permits the Centre to levy direct taxes on almost all forms of 'income' and its 'disposal'. However, while corporation tax and other taxes on income (with their appended components) have always been there, Centre has persistently explored other permissible direct taxes and levied them for varying time intervals. Examples of such taxes include expenditure tax, gift tax, wealth tax, interest tax, and the like. Some other taxes like the Fringe Benefits Tax were levied and withdrawn. Leading indirect taxes of the Centre happen to be customs duties, excise duties (with a few exceptions), and service tax. Similarly, several 'taxes of union territories', also belong to the category of indirect ones.
- Direct taxes of States include tax on agricultural income, land revenue, tax on professions, trade, callings and employment and tax on non-urban immovable properties. Their indirect taxes are of a wide variety and include State excise duties, general sales tax (now VAT), motor spirit sales tax, stamps and registration fees, taxes on vehicles, taxes on goods and passengers, tax and duty on electricity, entertainment tax, advertisement tax, betting tax and so on.
- Central taxes shared with States include both direct and indirect ones. However, surcharges and cesses levied by the Centre are not shared with them.
- With the introduction of GST in the form of its proposed dual model, both Centre and States would acquire concurrency over a number of existing indirect taxes. In addition, the States would also acquire the right to levy service tax.
- States are reluctant to tax agricultural income; and their receipts from tax on professions are subject to Constitutional restrictions. In the final analysis, direct tax revenue of States is primarily confined to Land Revenue, Tax on Professions, and Tax on Urban Immovable Properties. In contrast, they have some very buoyant and elastic indirect taxes like general sales tax (VAT), State excise duties, stamps and registration, motor vehicles tax, etc. An important but highly obnoxious indirect tax happens to be octroi which has been abolished by all States except Maharashtra.
- Direct taxes with the Centre are highly elastic and buoyant. For this reason, the Centre has been able to maintain a high proportion revenue from direct taxes. Data show that in 2003–04, gross receipts of its direct taxes (from corporation tax, personal income tax, interest tax, other taxes on income and expenditure, eState duty, wealth tax, and gift tax) were 41.32 per cent of its total gross tax receipts. This proportion registered an uptrend in subsequent years on account of

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various reasons and in 2009–10 peaked at 58.8 per cent. Since then, however, this proportion again started declining and was budgeted at 52.5 per cent. This downtrend was the combined result of a robust growth of service tax and withdrawal of some obnoxious direct taxes. Analysts assert that the Centre should follow a policy of moderate rates coupled with plugging of tax evasion.

- In contrast to the position at the Centre, States' own tax revenue is overwhelmingly from indirect taxes. For example, indirect tax receipts accounted for 97–98 per cent of their own tax receipts in the years 2009–10 and later. The reasons for this phenomenon are well known. Direct taxes of the States suffer from a low potential and the States are also hesitant in their optimum exploitation. The adoption of GST is expected to further ensure that the proportion of revenue from indirect taxes does not decline in the foreseeable future.
- It is noteworthy that, by their very nature, extending the coverage and enhancing rates of indirect taxes is easier for the authorities. It is more so when indirect taxes are *ad valorem*. These steps face milder resistance from the taxpayers and the suppliers, particularly because the latter are able to pass on their incidence to the buyers.
- The authorities claim that they reduce the regressivity of indirect taxes by taxing luxuries at higher rates and exempting some basic necessities like raw food. In effect, however, indirect taxes remain highly regressive. The fact that they feed inflationary forces adds to their regressivity.
- The authorities claim that their tax policy is aimed at improving resource allocation in the economy, generating employment and reducing regional disparities. However, critics claim that, in their policy decisions, the authorities are primarily guided by revenue considerations.
- Some analysts claim that in our country tax/GDP ratio is lower than what it ought to be. However, this claim ignores several pertinent facts including the following. (a) There is nothing like some universally valid ideal tax/GDP ratio. It varies in line with the totality of circumstances faced by an economy. (b) In general, tax/GDP ratio ought to be lower in a poorer country. (c) In India, this ratio has registered a secular uptrend from 6.22 per cent in 1950–51 to around one-fifth of GDP in 2012–13, highlighting an inherent elasticity and buoyancy of the Indian tax system. (d) A long-term uptrend in tax/GDP ratio does not necessarily mean an improvement in a tax system. (e) An appropriate tax/GDP ratio can be selected only after taking into account all the aspects of the expenditure side of the budget. This ratio ought to go up if it can be ensured that revenue receipts will be spent efficiently, productively and in line with the needs of the society and economy.

4.6.2 Indirect Taxation Enquiry Committee (Jha Committee): Report

The Report of this Committee is an important landmark in the process of a long term shift to a system of VAT in our country. Growing dissatisfaction with our indirect tax system led the Centre, in July 1976, to appoint the Indirect Taxation Enquiry Committee under the chairmanship of Shri L. K. Jha. The Committee had very broad terms of reference. It was asked to study the issue of a balance between direct and indirect taxes; and to thoroughly review the existing structure of indirect taxes of Centre, States and Local Bodies, including their elasticity and buoyancy. It was to assess their existing incidence and the scope for their use as a policy tool for influencing resource allocation,

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etc. In particular, it was asked to examine the feasibility of a VAT, and if found feasible, the manner in which it should be implemented.

The Committee submitted its final report in October 1977. It noted that there had been a steady increase in the share of indirect taxes in India and that it was far greater than the corresponding figures in either developed or underdeveloped countries. But it maintained that it was not possible to lay down on *a priori* grounds an optimum proportion between the two. However, the Committee pointed out some prime criteria of soundness of an indirect tax system. These included adequacy, progressive incidence, and satisfaction of the conventional canons of taxation.

The Committee found that there were no set policy guidelines for prevalent system of indirect taxes. There was an abundance of unnecessary diversity in rates, coverage and procedures, especially in State level indirect taxes. Its biggest defect was its **cost cascading** impact with all the attendant ill-effects which included:

- Difficulties in controlling the incidence on final products
- Incentives for vertical integration for captive consur tion and tax evasion
- Reduced effectiveness of indirect taxation as a policy tool
- Hindering exports

Suggestions and Recommendations

The Committee made detailed recommendations for reforming the existing system of indirect taxes, based on the assumption that 'the proposed changes should ensure an adequate and rising flow of resources to the Government and pave the way for an integrated indirect tax system in the country which should be more efficient, more equitable and better oriented to further the objective of planned development'. The recommendations of the Committee included a set of overlapping short term and long term measures.

- **Custom Duties:** The Committee recommended a lowering of import duties, on both raw materials and capital goods.
- **Excise Duties:** The Committee argued in favour of replacing specific duties with *ad valorem* ones because of their *lower regressivity*, greater buoyancy and elasticity, and lesser need for frequent revisions. It also made detailed recommendations regarding their rate structure, slabs, exemptions and concessions. Though it accepted the case for merging the *sales tax* with excise duties and earmarking the enhanced proceeds for the States, the State governments were against such a merger because of their unhappy experience with additional excise duties in lieu of sales tax. It, therefore, did not recommend this merger. Instead, it favoured a single point sales tax at the last stage and a lowering of the rates of Central sales tax.
- **Octroi:** The Committee, like all earlier Committees, found octroi to be an obnoxious and a harmful levy. It emphatically recommended its abolition, even if it had to be done in stages. To accomplish this task, it recommended that alternative sources of funds should be identified for the local bodies.
- **VAT:** There was also a need for and possibility of long term reforms covering the tax system as a whole. In this context, the Committee made a strong case for the adoption of VAT. **It recommended a VAT system at the manufacturing level—the so-called MANVAT.** It was to start with 3 or 4 industries producing final products. Such a pilot project would enable tax administration to test out procedures and gradually extend the coverage of VAT.

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In 1985, the Government introduced MANVAT under the name MODVAT or Modified VAT. The scheme left sales tax out of its purview because the latter was a State subject.

Over time, the term modvat has come to mean an arrangement under which the assessed tax liability of an assessee is reduced by the amount of taxes already paid on the inputs. Accordingly, an excise duty (or a sales tax) is termed MODVATABLE or VATABLE if this credit is allowed and non-modvatable if this credit is not allowed.

4.6.3 Tax Reforms Committee (Chelliah Committee), 1991

In pursuance of its commitment to reform the tax system, the GOI constituted the 'Tax Reforms Committee' in August 1991 under the chairmanship of Prof Raja J Chelliah. It submitted its Interim Report in December 1991, Final Report (Part I) in August 1992 and Final Report (Part II) in January 1993. The ToR of the Committee were quite comprehensive and asked it to address deficiencies from which our tax system suffered and make suitable recommendations for reforming it, so as to make it exhibit all the features expected of a good tax system.

The Committee discussed the feasible framework of an ideal tax system as also the extent to which this ideal had to be compromised in view of ground realities. It pointed out the deficiencies of the existing system and the faulty premises on which it had been erected. It also highlighted the fact that our tax system was an outcome of piecemeal and haphazard steps and lacked a long term vision. Several tax measures turned out to be self-contradictory and created a lot of uncertainty. This had resulted in only making our tax system unnecessarily complicated and with a wrong emphasis on the objective of additional resource mobilization (ARM). This was a faulty approach because of two reasons:

- The economy cannot and did not respond quickly enough to ever changing tax measures.
- The Government used most of the additional revenue for meeting its own expenditure needs.

The Committee observed that the taxpayer in general was increasingly convinced that under the circumstances it was no longer immoral to evade taxes. However, the Committee believed that, with an appropriate and comprehensive policy approach, our tax system could be cured of these ills and it could be made an effective instrument of fast, non-inflationary and equitable economic growth. To this end, the Committee aimed at making the tax system sensitive to the working of non-regulated market forces. Therefore, it recommended, with only a few exceptions, elimination of all exemptions, deductions and rebates. It recommended that the Government should give up its discretionary powers to alter statutory rates of excise and customs through executive notifications because this resulted in instability, complexity, irrationality and rate multiplicity of the tax structure.

Based on an analytical coverage of the existing tax structure, the Committee made several detailed recommendations which, in its view, met several criteria, such as, ensuring horizontal and vertical equity in taxation of personal income in conformity with the taxable capacity of the taxpayers. It recommended that wealth tax should be levied only on 'unproductive' assets.

In the field of indirect taxes, the Committee recommended, amongst others, lowering of import duties and reducing the number of import tariffs. Correspondingly, for

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domestic production, it recommended a simple and easily administrable VAT with only two or three rates. It also recommended that excise duties should be ad valorem and more items should be brought under them. Services should also be taxed.

The Committee also made detailed recommendations covering tax administration, procedures and audit. The Stated thrust of these recommendations was to protect honest taxpayers from harassment and make tax officials accountable for their actions. The tax administration was to have a system of rewards for efficiency and honesty and punishment for lapses.

However, some of the recommendations of the Committee had the potential of unintended ill-effects as well. The Committee failed to notice the unbearable burden resulting from the tax structure visualized by it on honest taxpayers. For example, it considered even a self-occupied residential house an 'unproductive' asset and recommended that its value and notional income should be taxed. It overlooked a simple principle that current tax liabilities of a taxpayer should not exceed his current income. Its recommendations made tax compliance harder for honest taxpayers. Furthermore, the bifurcation of assets into productive and unproductive on s was such that it pushed the asset holders to shift from tangible assets into financial ones. It is a well-known fact that financial assets may help in the production of goods and services but by themselves they cannot produce the same. Similarly, in itself, the concept of a presumptive tax is highly meritorious. But its contents, as recommended by the Committee, were such that the tax authorities were forced to either fully trust the assesse or investigate every case thoroughly.

The Committee took note of the widespread defects in the existing corporate taxation, like favouring debt financing, encouraging mergers, double taxation of dividend incomes, distorting choice between corporate and non-corporate form of business. However, in the name of improving the administration of tax system, the Committee recommended withdrawal of concessions for making donations to associations and institutions carrying out rural development or any scheme or project for promoting social and economic welfare. Similarly, deductions for business expenses were to be restricted to taxes and duties. However, while not allowing interest on any loan from any public financial institution, the Committee recommended that even contributions to provident funds and gratuity funds for the welfare of the employees, or similar other funds should not be deductible business expenses.

4.6.4 Task Forces on Direct and Indirect Taxes, 2002 (Kelkar Committee)

In September 2002, two task forces were set up under the Chairmanship of Shri Vijay L Kelkar.

The ToR of reference of the Task Force on Direct Taxes included:

- Rationalization and simplification of the direct taxes with a view to minimizing exemptions, removing anomalies and improving equity
- Improvement in taxpayer services so as to reduce compliance cost, impart transparency and facilitate voluntary compliance
- Redesigning procedures for strengthening enforcement so as to improve compliance of direct tax laws
- Any other matter related to the above points. Correspondingly, the terms of reference of the Task Force on Indirect Taxation were:

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- To review customs and Central excise law and procedures and make recommendations on their simplification, reducing cost of compliance and facilitating voluntary compliance
- To make recommendations relating to increased use of automation for a user friendly and transparent tax administration
- To review statutorily prescribed records, documents and returns and suggest their simplification
- To make recommendations for in-built procedures for time-bound disposal of matters
- Any other matter relating to legal provisions and administration for facilitating taxpayers and improving compliance

The Task Force on Direct Taxes was required to submit a consultation paper to the Government containing the recommendations, including those on improvement in 'taxpayer services', and procedures for strengthening enforcement. Similarly, the Task Force on Indirect Taxes was required to submit a consultation paper containing its recommendations on simplification, reduction in the cost of compliance of customs and central excise duties, automation of tax administration, simplification of statutory returns, records, procedures for time bound disposal of matters and different aspects of legal provisions to facilitate taxpayers and to improve tax compliance. The consultation papers were submitted in November 2002 and the final reports in December 2002.

The Task Force on Direct Taxes took the stand that in personal taxation, the number of tax slabs should be few, their range should be wide, and the highest rate should be moderate. It also favoured elimination of all exemptions and removal of restrictions on the manner in which a saver may keep his savings. At the same time, for the sake of equity, its recommendations were meant to have a human face and protect the interests of the vulnerable sections. However, it did not favour a single tax rate because of its various drawbacks. The Task Force also made elaborate recommendations for reforming the tax machinery and making the entire tax system transparent and non-discriminatory.

1. Personal Income Tax

- Increase in exemption limit to ₹1 lakh with a higher exemption limit for widows and senior citizens.
- Replacement of three slabs by two slabs of tax; 20 per cent up to an income of ₹4 lakh and 30 per cent for incomes exceeding ₹4 lakh. Elimination of surcharge on income tax.
- Elimination of Standard Deduction.
- Reduction of interest on housing loans deductible from income from ₹1,50,000 to ₹50,000. Alternatively, an interest subsidy of 2 per cent on housing loans below ₹5 lakh.
- A tax rental agreement whereby States should agree to let the Centre levy and collect tax on agricultural incomes and transfer the tax proceeds back to the States.
- Elimination of various tax incentives for savings and interest income etc. (under Sections 80, 80L, and 10).

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- Deduction under Section 80CCC for contribution to pension funds to be increased from ₹10,000 to ₹20,000. The scope of this Section to be enlarged to cover a large number of pension/annuity schemes within this ceiling.

2. Corporate Taxation

- Reduction in corporate tax to 30 per cent for domestic companies. Tax rate for foreign companies to be 35 per cent. Exemptions from tax on dividends and capital gains from listed equity.
- General rate of depreciation to be reduced from 25 per cent to 15 per cent.
- Elimination of minimum alternate tax (MAT).
- Long-term capital gains to be aggregated with other incomes and taxed at normal rates. Exemption to continue if gains invested in a house or bonds of National Highway Authority.
- Removal of exemptions under several Sections.
- Income of mutual funds derived from short-term capital gains and interest to be taxed at a flat rate in the hands of the mutual funds.
- Merger of tax on expenditure in hotels with service tax.

3. Both Personal and Company Taxation

Abolition of Wealth Tax.

4. Tax Administration

A number of recommendations for improving the quality of tax machinery; including those on raids and seizures, enhancing accountability of tax officials, extension of PAN to all economic transactions, and so on.

Recommendations of the Task Force on Indirect Taxes

1. Excise Duties

- All levies to be replaced by only one levy, namely, CENVAT.
- Zero excise duty on life saving drugs and equipment, security items, food items and agricultural products; varying rates of duties on several other specified categories.
- Duty exemption for small scale sector to be limited to only units with turnover of ₹50 lakh. Duty exemption limit for larger SSI units to be brought down gradually to ₹50 lakh.
- Uniformity in all State legislations, procedures and documentation relating to VAT.
- Extension of service tax in a comprehensive manner leaving out only a few services by including them in a negative list. A separate legislation on service tax to be integrated finally with the Central excise law.

2. Customs Duties

- Multiplicity of levies to be reduced to three, namely, basic duty, additional duty, and anti-dumping duty.
- A set of different specified duties on specified items, such as 150 per cent on specified agricultural products and demerit goods.

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- All exemptions to be removed except in the case of life saving goods, goods of security and strategic interest, goods for relief and charities and international obligations including contracts.

3. Tax Administration

A number of recommendations for making all procedures trust based, simple, fast and transparent. Full automation of all customs and excise commissionerates.

Comment

- The Task Forces made penetrating and far-reaching recommendations relating to reforms of tax administration. They were designed to improve the efficiency of the tax administration by making it less arbitrary and more transparent.
- In the areas of excise and customs duties, need for specific exceptions to the general rules was recognized and recommendations made.
- But the principle of essential exception and other factual realities were forgotten by the Task Force on Direct Taxes. It goes without saying there are forceful arguments in favour of simplifying our tax laws and procedures by removing avoidable exemptions, rebates and other concessions. However, in our country, certain specific facts dictate that these tax concessions should not be removed indiscriminately without considering their associated effects on certain economic activities and social groups. In the light of these facts, some of the recommendations of the Task Force should were ignored or were suitably modified.
  - o Standard deduction was available only to the salaried classes. It so happens that this is the only class which can hardly escape its tax liability. The self-employed and the business classes are known to successfully conceal a part of their taxable incomes. Accordingly, removal of standard deduction created an added element of inequity as between different classes of taxpayers.
  - o Similarly, social security is nearly non-existent in our country. A large number of people depend upon income from specified savings. Therefore, removal of tax concessions on income from specified savings is not justified, unless the initial exemption limit is raised quite high and the rate of the first tax slab is very nominal.
  - o In our economy, house building occupies a special place. It has beneficial multiplier effects. It has a huge potential of generating income and employment and, in the process, reduce poverty and improve living standards of the masses. Tax incentives for housing activity are provided even in very rich countries like the United States. By recommending the phasing out of tax incentives on house building, the Task Force prescribed a deadly blow to the economy as a whole as also to the poor and middle classes.
  - o The Task Force recommended a levy of capital gains tax in such a manner that it would discourage saving and long-term investment and instead encourage consumption and short-term speculative transactions—something which cannot be justified for our poor economy.
  - o Recommendations of the Task Force were based upon the philosophy of discouraging saving and encouraging immediate consumption. The Task Force forgot the basic reality that a developing country like ours needs savings and safe and remunerative avenues of their investment for accelerating and sustaining economic growth. The bubble of economic growth fed by current consumption cannot be sustained and is bound to result in a crisis sooner or later.

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Guided by the recommendations of the Kelkar Committee, the measures taken by the Centre introduced additional complexities in our tax system, introduced some obnoxious taxes like the 'Fringe Benefits Tax', removed various exemptions and concessions which, instead of strengthening our social security system, weakened it further. Examples of such retrograde measures include: (i) enlisting residential houses as unproductive assets, (ii) reducing incentives for savings, (iii) penalizing those who contribute towards rural welfare and uplift programmes or contribute to the education, health and housing of their employees, and so on.

It is, however, noteworthy that the Centre has hit a gold pot in the form of Service Tax. Its coverage has been widened with every budget and reached the stage (in 2012–13) of taxing all services with the exception of those in the 'negative list'. And it is intended to achieve an integrated system of taxation of both goods and services in the near future. Steps are also in the pipeline to adopt a code for direct taxes.

4.6.5 White Paper on Black Money (May, 2012)

A document entitled 'Black Money: White Paper, May 2012' was tabled by GOI in Parliament on 21 May 2012. Given below is a summary description of this White Paper with some pertinent comments on the same.

Meaning

It should be recalled that the term black money refers to that part of income and/or wealth (whether acquired through legal or illegal means) of an economic entity which has been concealed from tax authorities. The amount of black money may refer to its generation over a given period of time (say a year), or cumulative value of its generation over several years. The White Paper (WP) was a comprehensive document covering a wide spectrum of the problem of black money in India together with its associated international ramifications.

Causes

Generation of black money can be attributed to a wide variety of causes including legal, administrative, ethical and others. All these are interlinked and interdependent and feed upon each other. It is not possible to disentangle them, though they may be discussed singly or in groups for the sake of simplicity of presentation. Over time, while some of them have been understood and tackled in varying degrees, many more have cropped up with deep rooted foundations. Leading causes of the growing menace of black money include the following:

- There has been a rapid increase in criminal and illegal activities which, by their very nature, generate black income and wealth.
- In India, there has been a steady erosion of the integrity index of administrative and political set ups. This has helped criminal and illegal activities including deeper and wider spread of corruption. Consequently, black money has become an all-pervasive phenomenon in official and political circles as well.
- Dynamism and rapid transformation of economies, including that of India, has created additional scope for generation of black money. Several manifestation of this transformation is seen in the financial sector with the emergence of a host of

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financial products and growth of trading in them, as also facilities for rapid transfer of funds. ***WP on black money specifically pointed out the role of foreign investment, corporate structures and their ways of doing business, and even stock markets in generation of black money. WP also cites participatory notes as a source of generation of black money, something the government had often denied. WP also blamed derivatives as one of the innovative methods in generating black money while the government itself had been recommending it and rating it as a valuable policy tool.***

- Equally powerful are the phenomena of increasing globalization and interdependence of world economies, growth in trade and commerce, growing dominance of MNCs, discovery of ever-new avenues and methods of trading, and so on.
- Tax regime in India has become highly complex supported with procedures, rules and regulations which are difficult to comply with. In particular, the honest taxpayer has come to think that, for him, the cost of compliance is very high.
- Over time, an honest taxpayers has increasingly come to believe that with corroded integrity quotient of the administrative and political set ups, he is somehow ethically justified in evading taxpaying.
- It is widely believed that in our country, political funding is a major contributory factor in generating black money. However, the WP failed to mention this fact.
- The WP specifically identified transaction in immovable property and other assets like gold as leading contributory factors in generating black money. Other fields of activity which are major generators of black money include mining, and modern corporate structure.
- Globalization and expanding external trade have facilitated under-invoicing of exports, over-invoicing of imports. They have also facilitated several other forms of international movement of unaccounted funds.
- There has been a phenomenal growth of international tax havens facilitating stashing of black money abroad.
- The WP admits that during 1970s very high rates of income tax, combined with the prevailing shortages, resulted in excessive controls and licences, and thereby provided further incentives for tax evasion. It was largely in this economic environment that generation of black money became highly prevalent and acquired serious proportions. These high rates were subsequently brought in stages to 30 per cent in 1997. The WP also listed high tariff and non-tariff barriers as contributory factors to tax evasion.

Estimates

There are no precise or even near-reliable estimates of generation of black money in India, or its cumulative figures, or even the forms of assets (except some well known ones like immovable property) in which it is kept. As yet, no widely acknowledged effective methodology for making such an estimation has been discovered. By its very definition, black money is not accounted for in the records with the authorities. Consequently, accuracy of estimated figures of a study primarily depends upon the underlying assumptions made by the investigators, the reliability of the data used by them, and the sophistication of incorporated adjustments. The estimates made so far do not exhibit any inter-study uniformity, unanimity, or consensus about the best methodology or approach to be used for this purpose. There have also been wide variations in the

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reported estimates, thus casting a doubt over their acceptability or usefulness for policy purposes. Such a wide variation also highlights the limitations of the methods used in these studies. As a result, the only accurate Statement that we can make is that the phenomenon of black money has gained strength over time, it is spreading its tentacles even now and it needs to be tackled effectively.

However, it is noteworthy that the problem of black money is not something which can be ignored. Estimates of black money with its multi-dimensional aspects are essential inputs for any meaningful economic policy for our country. Therefore, with the objective of filling this information gap to the extent possible, the Central Board of Direct Taxes engaged, on 21 March 2011, three research bodies, namely, the NIPFP, NCAER, and the National Institute of Financial Management (NIFM) for completing a study within a period of 18 months covering several aspects of this problem. The reports of these bodies were expected in September 2012.

Remedies

The WP suggested a wide variety of remedies covering almost all imaginable fields of economic activities concerning Indian economy and feasible administrative measures for tackling the menace of black money. Some of these measures acknowledged the difficulties posed by the new era of liberalization and globalization fed by the phenomenal growth of the financial system, new methods of doing business, and the like. At the same time, WP sought remedies in the very context of emerging scenario with remodelling old strategies and devising new ones. The general thrust (as Stated in WP) of the suggested remedies was to increase the cost of tax evasion and to curb the use of new methods of tax evasion which the dynamism of modern interdependent economies had brought into existence.

The WP highlighted government's efforts in several international forums for building up inter-country cooperation in different fields and institutionalize cooperation along various fronts. These included Tax Information Exchange Agreements and DTAAs, etc. These agreements, however, retained several deficiencies which rendered them rather ineffective. Suggestions made by WP also repeated several old remedies which had till now proved ineffective.

Effectiveness of Proposed Remedies

- As pointed out above, international agreements for curbing the menace of black money and bringing home the stashed amounts harbour several deficiencies which render them ineffective for the purpose.
- The WP repeats several remedies which had been tried earlier and found ineffective.
- Political funding is a widely recognized source of black money. But WP totally ignored it.
- The WP talked of one time amnesty for funds stashed abroad and gave examples of its successful use in some countries. However, it just pointed out the prevalent sentiment against this measure and left it there.
- Several measures suggested by WP were in the nature of giving more discretionary powers to the tax authorities and administrative machinery such as mandating a no-objection certificate from the tax department on immovable property transactions. These proposals were viewed by the analysts as a return to the days of excessive controls and inspector raj resulting in the creation of insurmountable barriers in the path of economic growth.

Check Your Progress

14. Why was the feature of non-concurrency incorporated in the Indian Constitution?
15. What led to the appointment of the Indirect Taxation Enquiry Committee by the Centre?
16. What were the measures taken by the Centre in the guidance of the Kelkar Committee?

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4.7 SUMMARY

In this unit, you have learnt that:

- The totality of all taxes being levied by a government is termed its tax system. The authorities view their tax system as a means towards achieving one or more objectives (such as, raising revenue) and, in conformity with them, they identify certain criteria or principles as guidelines for building the tax system.
- Every tax system generates not only revenue receipts for the government, but also innumerable other spill over effects. To a typical academician, an ideal tax system is the one which is likely to maximize the sum total of its most desirable effects.
- Adam Smith was interested in enabling an economy to increase its productive capacity and thereby achieve a higher rate of growth. Further, he firmly believed that private sector was more efficient than the public one and, therefore, the primary responsibility of economic growth should rest with the private sector.
- Economic thinking, particularly after World War II, has undergone a radical transformation in which the State has been assigned a comprehensive role for tackling the country's economic and social ailments.
- There are three ways of classifying tax theories. A taxation theory is a model depicting a tax system built upon various identified assumptions and objectives with a set of corresponding features.
- The benefits received theory proceeds on the assumption that there is basically an exchange or contractual relationship between taxpayers and the State.
- In due course, the benefits approach gradually came to reflect a philosophy that taxation was basically a payment for the protection provided by the State.
- In 1888, Antonio de Viti de Marco (another Italian economist) made an assumption similar to that of Sax that the members of the society consume public services in proportion to their incomes. This assumption should have led him to advocate proportional taxation.
- The benefits received principle of taxation is based upon the assumption that market mechanism fails to supply goods and services which have a quality of publicness in them. It assumes that these goods and services are so important that arrangements should be made for their supply.
- The well-known advocates of the ability to pay theory include Rousseau, J. B. Say, Adam Smith, J. S. Mill, among others. It has been used as a theoretical underpinning for several policy prescriptions like progressive taxation, reduction in income and wealth inequalities, and removal of regional disparities, etc.
- The basic tenet of the ability to pay doctrine is that the distribution of tax burden between members of society should be on the criteria of justice and equity which, in turn, implies that the tax burden should be apportioned according to their relative ability to pay.
- Income is one of the most accepted indices of ability to pay, though it is usually supplemented by other tax indices also. Even Adam Smith, while asserting the ability criterion in his first canon of taxation, maintained that such ability is in proportion to respective incomes of the taxpayers.

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- Subjective approach to the ability to pay proceeds on the assumptions that a taxpayer undergoes a hardship or suffers a sacrifice by paying the tax.
- Tax neutrality is a concept related to tax provisions that follow or conform to an ideal tax system. The tax system should endeavour to be neutral and should not be biased in order to base the decisions made by the system on their economic merits rather than on tax reasons.
- Digression from the neutral tax system can sometimes be taken to be the aim of the policymakers because the tax system is formulated in such a way so that it discourages drinking alcohol, smoking, drugs and other such activities and encourages charity, home ownership, health insurance and higher education.
- The concept of taxable capacity is an expression of the common belief that there is always an upper limit of tax receipts, though there has never been an agreement as to quantum of this limit.
- Absolute taxable capacity refers to 'the maximum tax' which can be collected from taxpayers. Assuming that the State has an absolute power to tax away the income and property of the citizens, this absolute capacity gets equated with GDP of the country.
- In India, as in most other countries, broad contours of the concept of relative taxable capacity are used in the formulation of detailed tax proposals. These contours are laid down without insistence on the precise quantitative estimates of relative taxable capacity of taxpayers.
- Direct taxes can be classified on the basis of the degree of progression or distribution of their burden on the taxpayers. According to this classification, taxes may be classified as proportional, progressive, regressive and digressive.
- If the tax liability increases in the same proportion as the increase in the taxpayer's income, it is termed as proportional taxation.
- If the tax liability as a proportion of taxpayer's income falls with the increase in tax payer's income, it is termed regressive taxation.
- A progressive tax is a tax which varies with the change in the income of the individual and the rate of tax becomes gradually higher for the higher incomes and lower for the lower incomes.
- In regressive taxation, higher the income of a taxpayer, smaller is the proportion of his income which he contributes to the government in the form of tax.
- Our Constitution does not allow concurrency of taxation powers between the Centre and States (that is, a given tax base cannot be taxed by both the Centre and States). Moreover, local bodies are assigned taxation powers by States or, if they are in union territories, by the Centre, out of the State List for their respective territorial jurisdictions.
- The Centre has found a new segment of indirect taxation in the form of **service tax**, first by using its residuary powers, and then through a Constitutional amendment. This tax is justified on account of a growing share of services in our GDP.
- Growing dissatisfaction with our indirect tax system led the Centre, in July 1976, to appoint the Indirect Taxation Enquiry Committee under the chairmanship of Shri L. K. Jha.

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- Guided by the recommendations of the Kelkar Committee, the measures taken by the Centre introduced additional complexities in our tax system, introduced some obnoxious taxes like the 'Fringe Benefits Tax', removed various exemptions and concessions which, instead of strengthening our social security system, weakened it further.
- A document entitled 'Black Money: White Paper, May 2012' was tabled by GOI in Parliament on 21 May 2012.

4.8 KEY TERMS

- **Tax system:** The totality of all taxes being levied by a government is termed its tax system.
- **Tax neutrality:** It is a concept related to tax provisions that follow or conform to an ideal tax system.
- **Proportional taxation:** If the tax liability increases in the same proportion as the increase in the taxpayer's income, it is termed as proportional taxation.
- **Regressive taxation:** If the tax liability as a proportion of taxpayer's income falls with the increase in tax payer's income, it is termed regressive taxation.
- **Progressive tax:** It is a tax which varies with the change in the income of the individual and the rate of tax becomes gradually higher for the higher incomes and lower for the lower incomes.

4.9 ANSWERS TO 'CHECK YOUR PROGRESS'

1. Adam Smith was interested in enabling an economy to increase its productive capacity and thereby achieve a higher rate of growth. Further, he firmly believed that private sector was more efficient than the public one and, therefore, the primary responsibility of economic growth should rest with the private sector.
2. The canon of equality tries to observe the objective of economic justice.
3. The latest principles of taxation include not only imposition of taxes, but also tax concessions, rebates, exemptions, and so on.
4. There are three ways of classifying tax theories. A taxation theory is a model depicting a tax system built upon various identified assumptions and objectives with a set of corresponding features.
5. The well-known advocates of the ability to pay theory include Rousseau, J. B. Say, Adam Smith, J. S. Mill, among others.
6. Income can be divided into: (i) earned income, and (ii) unearned income.
7. The best way of apportioning tax burden would be to enforce equal after-tax incomes.
8. The concept of taxable capacity is an expression of the common belief that there is always an upper limit of tax receipts, though there has never been an agreement as to quantum of this limit.
9. Absolute taxable capacity refers to 'the maximum tax' which can be collected from taxpayers. Assuming that the State has an absolute power to tax away the income and property of the citizens, this absolute capacity gets equated with GDP of the country.
10. The Ninth Finance Commission mentioned two alternative approaches to estimate relative taxable capacity of States and their tax effort, namely, (a) the Aggregate Regression (AR) Approach, and (b) the Representative Tax System (RTS) Approach.
11. If the tax liability as a proportion of taxpayer's income falls with the increase in tax-payer's income, it is termed regressive taxation.
12. Proportional tax has the following two characteristics.
    - It is fixed and its proportion does not change with the change in the taxpayer's income and wealth.
    - It is fixed in amount and it is never levied in varying percentages.
13. A progressive tax is a tax which varies with the change in the income of the individual and the rate of tax becomes gradually higher for the higher incomes and lower for the lower incomes.
14. The feature of non-concurrency was incorporated in our Constitution so as to satisfy three criteria of uniformity, economy, and efficiency of the tax system as a whole.
15. Growing dissatisfaction with our indirect tax system led the Centre, in July 1976, to appoint the Indirect Taxation Enquiry Committee under the chairmanship of Shri L. K. Jha.
16. Guided by the recommendations of the Kelkar Committee, the measures taken by the Centre introduced additional complexities in our tax system, introduced some controversial taxes like the 'Fringe Benefits Tax', removed various exemptions and concessions which, instead of strengthening our social security system, weakened it further.

4.10 QUESTIONS AND EXERCISES

Short-Answer Questions

1. What are the canons of taxation prescribed by Adam Smith?
2. What are the latest additions made in the principles of taxation?
3. How can taxation theories be classified?
4. List the limitations of the benefits received approach.
5. State the basic tenet of the ability to pay doctrine. Also, describe the objective indices of ability.
6. Write a note on the benefits received theory and the hurdles on its path.
7. What is tax neutrality?
8. State the difference between taxable capacity and ability to pay approach to taxation.
9. 'Progressive system of taxation is the best system of taxation.' Give reasons.

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10. Provide a brief coverage of the contents of the Indirect Taxation Committee (Jha Committee) Report. Comment on the view that it initiated a long and fruitful process of reforming our indirect taxes along the right lines.
11. State the claims that recommendations of Kelkar Committee failed to take into account some of the ground realities, particularly the need to encourage savings and healthy investment.
12. State the reasons for which the government has not been possible to quantify the menace of black money in India.

Long-Answer Questions

1. Describe the various canons of taxation.
2. Explain the benefits received theory of taxation.
3. Assess the ability to pay approach to taxation.
4. What do you mean by neutrality in taxation?
5. What is taxable capacity and its types? What are the factors determining taxable capacity?
6. Discuss the concept of regressive, proportional and progressive tax in detail.
7. Even advocates of a neutral tax system agree that the tax system should meet certain criteria. Briefly describe these criteria and enumerate hurdles in achieving such a tax system in a country like ours.
8. Provide a detailed description of the essential features of Indian tax system.
9. Briefly highlight the findings of the Tax Reforms Committee (Chelliah Committee) and critically examine its main recommendations.
10. Examine the salient aspects of the Report of the Kelkar Committee. Would you agree with the view that its recommendations were a mixture of some much-needed reforms of our tax system and introduction of some highly obnoxious taxes?
11. Write a comprehensive note on the White Paper on Black Money of May 2012. Do you think, the remedies suggested in it would successively tackle the problem of black money? Give reasons for your answer.

4.11 FURTHER READING

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Endnotes

1 E. R. A. Seligman, *Progressive Taxation in Theory and Practice,* 2nd ed., American Economic Association, Princeton University Press, Princeton, 1968.

2 In progressive taxation the tax liability increases both absolutely and as a proportion of income as income increases. In regressive taxation, though the absolute tax liability may increase with increasing income, as a proportion of income it will fall. In proportional taxation, tax liability stays as a given proportion of income irrespective of income level.

3 Fiscal policy represents use of budgetary items and components as policy tools.

4 E. H. Plank, *Public Finance*, Richard D. Irwin, 1953, p.180.

5 H. Dalton, *Public Finance,* Routledge & Kegan Paul Ltd., London, 1949, p.91.

6 *Ibid.*

7 'It remains to be seen whether a workable and reasonably meaningful measure of utility can be developed in time and whether thereby the subjective concept of ability-to-pay can be given an operational meaning. At this stage, we do not possess a universally accepted measure of utility by which to apply one or the other sacrifice formula.' R. A. Musgrave, *The Theory of Public Finance*, McGraw-Hill, 1959, p.109.

8 H. Dalton, *op. cit.,* p. 92, footnote 2.

9 Lionel Robbins, "Interpersonal Comparisons of Utility", *Economic Journal,* Vol. 48, No. 4, December 1938, pp. 635–41, quoted in R. A. Musgrave, *op. cit*.

10 A. P. Lerner, *Economics of Control,* Macmillan, New York, 1944.

11 A tax is progressive if, with increasing income, the tax liability increases both in absolute amount and as a proportion of the income. In a proportional tax, the tax liability as a proportion of income remains unchanged. In regressive taxation, with an increase in income, tax liability falls as a proportion of income.

12 E. H. Plank,, *op. cit.,* p. 177.

13 R. A. Musgrave, *op. cit.,* Ch. 5, and A. C. Pigou, *A Study in Public Finance*, 3rd ed., Macmillan, 1951, Part II, Chapter 1.

14 H. Dalton, *op. cit.,* pp. 86–87. Also, Pigou, *op. cit.,* p. 57.

15 A. P. Lerner, *Economics of Control,* Macmillan, 1957, p. 57.

16 A. C. Pigou, *op. cit.,* p.43.

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UNIT 5 EFFECTS OF TAXATION

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Structure

5.0 Introduction
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5.0 INTRODUCTION

The effects of taxation cover all the changes in the economy resulting from the imposition of a tax system (or a variation in it). One may say that without taxation, a market economy would attain certain production, consumption, investment, employment and similar other levels and patterns. The presence of taxation modifies these levels and patterns for good or for bad and such modifications may collectively be called the effects of taxation.

There was a time when under the influence of the *laissez faire* philosophy, it was advocated that the State should have a neutral tax policy. In other words, revenue raised by the State should cause none or minimum possible variation in economic parameters generated by the market forces. Such a policy is also referred to as 'general fiscal rationality.' It implies that the fiscal action of the government should not, to the extent possible, disturb the resource allocation in the economy or affect relative position of its parameters. This view implies that in a free market mechanism, the patterns of resource allocation and production conform to the social marginal rates of substitution between different goods and services. Obviously this claim rests on two fundamental assumptions.

- Economic parameters generated by the free market are optimum and attainable by the economy.
- State can raise adequate tax revenue without undue interference in the working of the economy.

Both these assumptions are unrealistic. It is now well recognized that the market forces by themselves seldom lead to an optimal outcome. A free market mechanism breeds trade cycles, inequalities of income and wealth, imbalanced growth and similar other ills. Actually it is able to move closer to an optimum allocation of resources and other desirable results only when certain strict conditions are satisfied. It is assumed, for example, that the market is perfectly competitive, while in reality there are all sorts of

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imperfections caused by irrational consumer behaviour, monopolistic practices of the suppliers, technical rigidities, imperfect knowledge of the market, and so on. Similarly, another stringent condition is that of the absence of externalities of goods—a condition which is not satisfied in the case of public goods.

A modern State needs quite a sizeable revenue which forms a significant proportion of the total national income. Its sheer size rules out neutrality. It is next to impossible to have such a tax system. Moreover, there is a need to rectify deficiencies of the market mechanism and tax system provides a fertile ground for devising various policy tools for this purpose. Therefore, tax tools may be devised with the aim of restructuring market decisions for maximizing aggregate social benefits. These tools should help in bringing about equality between social marginal rates of substitution and technical rates of substitution between pairs of goods and services. The same idea may be extended to the economy as a whole in choosing between public and private goods.

Effects of a tax system are generally a multi-stage phenomenon admitting a corresponding stage-wise examination thereof. For example, the first stage covers the fact of tax imposition itself which reduces the disposable income of those upon whom the statutory responsibility of paying the tax rests. The final stage of effects is associated with the fact of incidence. A number of stages exist in between these two extremes. The effects of taxation may be studied at different levels of aggregation. The choice depends upon the purpose of our analysis and/or comparing the effects of different taxes on the working of the economy. In this unit, you will get acquainted with the various effects of taxation.

5.1 UNIT OBJECTIVES

After going through this unit, you will be able to:

- Assess the concept of tax on income and its effect on work effort
- Discuss the classification of commodity tax
- Analyse the concept of impact and incidence
- Describe the effects of taxation on production and price in different market conditions
- Evaluate the concepts of elasticity and buoyancy of tax

5.2 TAX ON INCOME AND ITS EFFECT ON WORK EFFORT

A multiple tax system has widespread ramifications on the economy and different kinds of taxes have different kinds of effects on the private business. Taxes affect the economy in many ways by affecting macro variables like consumption, saving, investment, price structure, price levels and work effort. In India, there is a wide range of direct and indirect taxes. Direct taxes include personal and corporate income taxes on current earnings, wealth tax and gift tax on transfer of property. Indirect taxes include excise duty, sales tax, custom duties and a number of other taxes imposed by the States. Not only is there multiplicity of taxation, but also double taxation of incomes and commodities. The total revenue of the country accounts for about 22 per cent of the national income. Such widespread and heavy taxation cannot be neutral to private business activities. In

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fact, it is alleged by the business community, even after the tax reforms of 1991 and 1992 that the existing Indian tax structure is seriously undermining the incentive to save and invest for both individuals and corporations. However, taxation reforms made in India since 1991 have reduced the tax rates to internationally comparable levels and are expected to have much less adverse impact on the private business.

Measuring how tax has affected the private business is an extremely complex affair. The impact of income taxation on the growth of private business in general, and on private investment in particular, may be examined through its effects on (*i*) people's work-efforts; (*ii*) saving of the households in general and of private firms in particular and (*iii*) incentive and ability to invest.

It is important to note at the outset that there is little evidence available in case of India to support or refute the proposition regarding the adverse effects of taxation on saving and investment. The empirical evidence available for other countries is not strictly conclusive, and even if it is, the same may not be applicable to the Indian economy. We will, therefore, confine our discussion to only theoretical propositions regarding the effects of various taxes on private investment.

The effect of taxation on private enterprise depends, among other things, on how income tax affects people's desire to work. The additional work effort depends, in fact, on peoples' choice between leisure and work. Leisure gives a kind of satisfaction (or pleasure) while work yields income which yields another kind of satisfaction. Taxation of personal income reduces return from labour and, therefore, it alters peoples' choice between leisure and work. When a tax is imposed or income tax rate is increased, wage income decreases. As a result, the reward for an additional labour and the price of additional leisure, i.e., opportunity cost of leisure, are both lowered. Under this condition, 'the worker will tend to substitute leisure for work.' Thus, taxation reduces the supply of labour. But, at the same time, increase in tax rate reduces the total income from given hours of labour. It makes the worker poorer but poor workers normally wish to enjoy fewer hours of leisure in order to earn more. The workers would, therefore, like to work more to raise their income. Thus, taxation has both negative and positive effects on labour supply. The net effect of taxation on work effort (or labour supply) depends on the relative strength of the two effects.

A number of surveys and econometric studies carried out in the United States and England on this aspect of taxation have not yielded any definite measure of the net effect of taxation on work effort. According to Musgrave and Musgrave, 'There is no *a priori* basis on which to judge the direction in which the net effect will go, although it is reasonable to assume that effort will decline.' They have, however, contradicted themselves by saying, 'it should not be readily assumed that an income tax must reduce effort.' Sanders has found that 'the typical (business) executive [does not] put forth his best efforts, taxes or no, to fulfill the requirements of his job and to progress on the promotional ladder of his company.' George F. Break interviewed 306 lawyers and accountants in England—an ideal group to study as they belonged to the category of tax-payers who can easily adjust their working hours with changes in their incomes. According to his findings, '40 men reported definite adverse effect on incentive' for additional work, 32 men reported to have worked harder due to taxation as some of them wanted to accumulate wealth and some wanted to maintain their standard of living. The remaining 234 men reported minor or no effect on their work effort.

It may be inferred from these empirical evidences that taxation of income has, if at all, only marginal effect on work effort. Although under the conditions mentioned

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above, any generalization would be risky, much of tax effect on work efforts depends on: (*i*) the level of income; (*ii*) tax-rates—proportional, progressive or regressive; (*iii*) the productivity or marginal efforts and (*iv*) non-monetary benefit, such as free accommodation, education of children, health care, travel benefits, etc. In general, if a person has low income but wants to raise his standard of living to the level of his society, he will have to increase his work efforts to earn an additional income to make up the loss in income due to tax. But a rich person may not like to work more. If tax-rates are progressive, the additional work effort will be less and less paying. If earning per unit time becomes regressive, taxation may have a negative effect on work effort. The effect will be reverse in case of proportional and regressive tax rates. If hard work, experience and marginal productivity are positively correlated, the tax will have only marginal negative effect, as it happens in the case of lawyers, doctors, managers, consultants, accountants, etc. Also, if non-monetary benefits (not to be included in taxable income) increase with additional work effort, tax would not have a negative effect on the supply of labour. Finally, whether taxation affects work-effort depends to a great extent on a person's desire, effort and ability to shift and to evade tax. It may thus be concluded that general taxation of income does not materially affect the supply of labour.

Incidentally, as regards the effect of indirect taxes, economists generally compare it with the effect of income tax. Since there is no definite measure of income tax effect on work effort, nothing definite can be said about the effect of indirect taxes too. The general opinion regarding the effect of indirect taxes on work effort is that indirect taxes may affect the labour supply since they raise the price and thereby reduce the real wage rate. But, if money incomes are rising and workers are under money illusion, feel happy with larger money income irrespective of its purchasing power, indirect taxes may not affect the work efforts. It is believed that the negative effect of indirect taxes on work effort is less than that of income tax because workers can avoid indirect taxes by consuming less of a taxed commodity, which is not possible under income tax.

5.3 COMMODITY TAX AND IMPACT AND INCIDENCE

Commodity taxes are classified either as a:

- Specific Tax
- Ad Valorem Tax

1. Specific Tax

When a tax is imposed on a commodity according to its weight, size or measurement, it is called a specific tax. For instance, when the excise duty is imposed on sugar on the basis of its weight or a piece of cloth is taxed according to its length or a tax on a picture is levied on the basis of its size, it is known as a specific tax.

The main advantage of a specific tax is that it is easy to levy and convenient to collect because it is collected either according to the weight of the commodity or according to the size of the unit of the commodity.

The main disadvantage of this tax is that it imposes a greater burden on poor people than on the rich. The reason is that the marginal utility of money for the rich is lower than that for the poor people.

Check Your Progress

1. What do direct and indirect taxes include?
2. On what does the effect of taxation on private enterprise depend?
3. On what factors does tax effect on work effort depend?

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2. Ad Valorem Tax

When the tax is levied on a commodity according to its value, it is termed as an ad valorem tax. Whatever may be the weight or size of the unit of the commodity, the tax is charged according to its value. Several imported commodities are taxed not according to their weight or size but according to their value.

The main advantage of an ad valorem tax is that it imposes a greater burden on the richer sections of society. From this point of view, an ad valorem tax is more equitable than a specific tax.

The main problem with an ad valorem tax, however, is that it is difficult to know the real value of the commodity at the time of imposing the tax. Generally, the traders understate the value of the commodities in their invoices in order to escape the burden of the ad valorem tax.

In fact, it is difficult to choose between a specific and an ad valorem tax. A good tax system should have both the specific tax and an ad valorem tax according to the nature of the commodities.

5.3.1 Impact and Incidence

The study of incidence and shifting of taxes is most important in the domain of public finance. The objective of the study is to enquire about the class, section or group of individuals who ultimately bear the burden of taxation. It also includes the enquiry of the manner of the distribution of tax among the different sections of society. The main focus of the study in the context of incidence and shifting of a tax is to find out as to how much tax burden falls, on whom does it fall and what is the feeling of the person on whom it falls. It is a general happening that the incidence of a tax does not always fall on the same person who is directed to pay the tax but it is transferred on the shoulders of some other person or group of persons. Thus, it becomes essential for the state to find out the actual taxpayers. As far as the direct tax is concerned, a tax on income cannot be shifted on to the shoulders of others, but it is very much expected in the case of indirect taxation. Every person wants to shift his tax incidence on other person or persons as far as he can in order to maintain his purchasing power at higher level.

Meaning of Tax Incidence

The incidence of tax means the final money burden of a tax. Whenever a tax is levied, its money burden falls on some individual. Under the tax incidence, we try to find out as to where the money burden actually falls or who bears the burden of a tax. According to Hugh Dalton, the problem of incidence is commonly conceived as a problem of who pays it. More precisely, we may say that the tax incidence is on those who bear the direct money burden of the tax. In the words of Findlay Shirras, 'the problem of incidence is the analysis to determine who pays the tax, i.e., on whom the money burden of the tax falls or rests.' Richard A. Musgrave has stated that the concept of incidence is the location of the ultimate burden of a tax which starts from the false premise that a tax as such has an ultimate burden.

According to J. K. Mehta, 'sometimes incidence is defined as the direct money burden of a tax. That way of defining incidence is satisfactory for most purposes. But it is necessary to note that all direct and monetary burdens should not be called incidence. For instance, a tax on tea will directly reduce the income of those who sell the foils in which tea is packed. Again, a toll tax may reduce the sales, and, therefore, the income of

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the sellers of certain goods. But these burdens, though direct and financial, are not to be called the incidence of taxation. They should be included in effects.'

Thus, we see that the opinions of the economists are not exactly similar. For some authors, incidence is concerned with the load of tax. There are some economists who make a distinction between incidence of a tax when other things are not the same. Thus, Musgrave mentions three kinds of incidence. When a tax is imposed without any change in the expenditure side of government account the resulting incidence is called the *specific incidence* by Musgrave. When a tax is levied as a substitute for another tax, he calls the resulting incidence the *differential incidence.* Lastly, when the government finances its expenditure by the yield of tax the resulting incidence is called the *balanced budget incidence.* It will be seen that it is only in the first case that other things remain the same. The incidence may, therefore, be called the real specific incidence of the tax.

Mrs Ursula Hicks has mentioned the (i) formal incidence; and (ii) effective incidence of a tax. Her formal incidence is similar to Dalton's direct money burden of a tax. Defining the formal incidence of tax, she states that we are concerned in economics with two concepts of the falling of taxes on the taxpayers, as it is called the incidence of taxes. In the first place, there is the statistical calculation of the way in which the revenue collected from any particular tax over a given period (usually one year), namely the difference between the factor cost and the market price of the product on which the tax is assessed, is distributed between the citizens (for convenience grouped according to their income levels), or alternatively, the proportion of peoples' incomes which goes, not to provide the incomes of those who furnish them with goods and services but is paid over to the government body to finance collective satisfactions. The result of this calculation may be called the *formal incidence* of the tax. The *effective incidence* indicates the wider effects of various taxes. In order to discover the full economic effects of a tax, we have to draw and compare two pictures—one of the economic set-up (distribution of consumers' wants and incomes, and the allocation of factors), as it is with the tax in question; the other of a similar economic set-up but without the tax. It is convenient to call the difference between these two pictures the effective incidence of the tax.

Impact and incidence of tax

Sometimes a distinction is made between the impact and an incidence of a tax. The impact of a tax is the first point of contact of the tax with the taxpayers, i.e., the impact of a tax falls on the person who pays the tax in the first instance. The incidence of a tax refers to the final or ultimate burden of a tax. However, it is not always necessary that the person who pays the tax in the first instance will also bear the ultimate or final money burden of the tax. In other words, the impact and the incidence of a tax may not fall on the same person. For instance, when the government levies the excise duty on sugar, it is paid in the first instance by the sugar producer, i.e., sugar mill-owner. Thus, the impact of the sugar duty is on the sugar mill-owner. But it does not mean that the incidence of this excise duty will also fall on the sugar mill-owner. The sugar mill-owner will shift forward the burden of the excise duty on the consumers in the form of higher price of sugar. In other words, he will include the amount of excise duty in the price of sugar and charge it from the consumers. The incidence of the excise duty on sugar will be borne by the sugar consumers. The amount of reduction in the consumers' incomes consequent upon the imposition of the excise duty on sugar represents its money burden. The impact of a tax does not reduce the income of the producer it only puts a burden on him for a short while whereas the incidence of tax is durable and it ends in diminishing the money income of the sugar consumer.

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According to J. K. Mehta, 'impact might be said to be the immediate money burden. The impact of a tax is on the man on whom the tax is imposed. The man who pays the tax to the government bears its impact only. A tax might be levied on the producer of cloth. The cloth producer pays the tax to the government. He is said to bear the impact of the tax. The producer, however, raises the price of his cloth in an attempt to pass the whole or a part of the tax on to the buyers. If he is able to raise the price, we say that the tax has been shifted, partly or wholly, to buyers. If the rice does not rise to the full extent of the tax, we say that some incidence of the tax remains on the cloth producer, but impact is only on the producer. For it is he alone in the above case who in the first place bears the entire burden of the tax.'

The problem of the impact of tax as distinct from the incidence of tax does not occur in the case of direct taxes because the person who pays the income-tax cannot shift it on others. He will have to pay the tax from his own pocket. The distinction between the impact and incidence of a tax becomes, however, very prominent in the case of indirect taxation. Since the impact and incidence of indirect taxes fall on different individuals under different situations, it gives rise to the important phenomenon of shifting of the tax burden.

5.4 EFFECTS OF TAXATION ON PRODUCTION AND PRICE IN DIFFERENT MARKET CONDITIONS

Imposition and collection of a tax have the potential of evoking a variety of responses from both taxpayers and other affected economic units and thereby influencing the working of the economy in several ways. These responses and their outcomes are collectively termed *effects of that tax.* These effects may result from the fact of imposition of a tax itself, and/or from the process of shifting of its incidence. For example, the minimum effect of a tax, when it is imposed, is a reduction in the disposable income of the taxpayers; and if its incidence is shifted, then at least some prices would also change.

The effects of taxation on production and economic growth in the economy may be analysed under the following three heads:

- Effects of taxation on peoples' ability to work, save and invest
- Effects of taxation on peoples' willingness to work, save and invest
- Effects of taxation on the allocation of resources between different trades and regions

1. **Taxation and the Ability to Work, Save and Invest:** When a tax is imposed on consumers, it immediately reduces their purchasing power or net income because a part of his income is paid to the government. Consequently, the consumer is compelled to purchase a smaller bundle of commodities and services than before. This effect of tax is similar to the effect of inflation or high prices. The standard of living of the consumers (taxpayers), therefore, falls unless the tax payment is accompanied by an increase in their incomes by the amount of tax. It means that the imposition of a tax reduces the ability of the taxpayers to work, save and invest.

   If the tax burden falls on the poor people, it would curb the consumption of essential goods and services and reduce their standard of living and their ability to work. Conversely, if the tax burden falls on the rich people, it does not curb consumption.

Check Your Progress

4. With the help of an example, define specific tax.
5. Why is ad valorem tax considered to be more equitable than a specific tax?
6. State the objective of the study of incidence and shifting of taxes.
7. State the difference between impact and an incidence of tax.

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At the most, it may reduce the consumption of only luxury goods as a result of which their ability to work will not suffer impairment, although it is certain that their ability to save will reduce. In other words, a progressive tax system reduces the ability to save. But sometimes a tax may prove helpful in increasing the efficiency to work of the taxpayers. For instance, if the taxes are levied on those commodities which are harmful for health and efficiency, as result of tax the consumption of such goods would fall. Consequently, it will have a healthy effect on people's efficiency to work.

The effect on the ability to work may assume a cumulative form. Reduction in the purchasing power due to taxation would lower the standard of living which, in turn, results in low efficiency. Lower efficiency would lead to lower income which would further lead to low efficiency. Similarly, if the tax reduces people's ability to save, it will lead to low capital formation because people would consume a major part of their income as a result of higher taxation on goods and services consumed by them. As a result, it will reduce their savings. Due to low savings, the capital formation will be low. The fall in the capital formation will lead to low production and low level of income. This would further reduce the ability of people to save. Thus, the effect of taxation will assume a cumulative form.

The ability to invest is related with the ability to save although the two are not identical. An individual economic unit may be able to save but it may not be able to invest for several reasons. Similarly, an economic unit may not be able to save but it may be able to invest. Thus, for an individual economic unit, saving may not be essential for investment. It might even borrow from financial institutions for financing its investment activities. However, for the economy as a whole, investment is not possible unless savings are made. Given the fact that there exists financial institutions and a mechanism for collecting the community's savings and bringing these savings to the investors, the level and pattern of investment will be greatly influenced by the structure of taxation in the country.

If a tax is imposed on the consumers and if as a result of this the savings are reduced, a smaller amount of savings will be available to the investors for the productive ventures. Consequently, the level of aggregate investment in the country will fall. Similarly, the total capacity to invest is likely to decrease as retained profits of the business firms are taxed by the government.

It must, however, be mentioned that these harmful effects of taxation may, to a certain extent, be neutralized by the pattern of government expenditure. Reduction in investment which has resulted from peoples' low ability to save due to higher taxation may be partly or wholly offset by increasing the incomes of the people as a result of state expenditure. Similarly, the standard of living and the capacity to work of the taxpayers may not fall due to taxation if the various amenities are provided by the government in greater amount.

2. **Taxation and the Will to Work, Save and Invest:** The effects of taxation on peoples' willingness to work, save and invest are partly due to the money burden of tax and partly due to the psychological state of the taxpayers. If an individual suddenly secures huge income from an unexpected source (for instance, if a person gets a windfall income on the death of a relative) and the government imposes a tax on such income, this will produce no adverse effects on that person's will to work, save and invest. The reason for this is that the person concerned has not made any endeavour to earn the income.

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The income elasticity of demand can also influence the will of a person to work, save and invest. Since the income which the taxpayers earns by one or another kind of work is taken away by the government in the form of taxes, they lose the incentive to work to earn further income. If the income demand of an individual is inelastic or has a large family to support, then the individual will work more consequent upon the imposition of the tax. In such a situation, tax acts as a spur to work harder. The reason for this is that the individual will have to earn more income in order to meet the requirements of the family. On the contrary, if the income demand of the individual is elastic or if he/she has only a small family to support, then the will to work may not be affected as a result of the imposition of tax.

Likewise, the form of the tax may also effect the will to work and invest. It is universally recognized that direct taxes, particularly income tax, has an adverse effect on the incentive to work and invest. On the other hand, commodity taxation generally does not have a direct effect on the incentives of the individuals. This is so because in the case of a direct tax, taxpayers pay a certain amount of income directly to the government. Obviously, they will not be willing to work more and to invest more because a part of such efforts will have to be paid to the government. On the other hand, indirect taxes are hidden in the prices of goods and services. Consequently, average taxpayers are not fully aware of their burden and existence.

Although taxpayers can pay some moderate rates of income and other direct taxes without much murmur, but high rates of direct taxes (which at certain stage may take away nearly 80 to 90 per cent of individuals' additional income) will certainly influence the individuals' willingness to work and save. Such high tax rates will not create the incentive among people to work more and invest more; rather these will induce people to evade and avoid the tax imposed by the government.

Again, a high rate of taxation on business profit will induce the business community to increase its business expenditure and reduce corporate profitability. Earnings from investments, however, are usually taxed unevenly. The result is that differential taxation can bring about several influences on the types of investment. For instance, if the investment in real estate—land and house-building—is taxed lightly compared with the profits from business, investment in land and housing will be encouraged. Similarly, industries which are allowed a high rate of depreciation allowance will find their net profitability higher and consequently will attract investment in preference to others. If some industries are exempted from taxation, investment will be directed toward such industries. Thus, by imposing lower taxes on capital goods industries, their growth can be encouraged. It contributes to capital formation and economic growth of the country.

If differential taxation is adopted in the context of certain chosen locations of industries, the industries will tend to shift towards the lower taxed regions. Thus, the government may, to a great extent, use its tax policy as an instrument to reduce the regional inequalities and imbalances in the economy.

3. **Taxation and the Allocation of Resources:** The government can use its tax policy to divert the scarce resources of the country in the desired productive activities. Thus, taxation can influence not only the size of production but also the pattern of production in the economy. The diversion of resources between different industries and regions as a result of taxation may be favourable or unfavourable.

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High taxation on harmful drugs and commodities will raise the prices of such products so much that the demand for these products will be curtailed considerably. Consequently, the production of such products will be discouraged and resources engaged in their production will be gradually shifted to other industries which are useful for economic growth of the country. This is a favourable effect of taxation on the allocation of resources. Similarly, tax concessions and exemptions on goods produced in the backward areas can help divert economic resources from the economy's overcrowded areas to the backward areas. This will, apart from promoting the balanced regional economic development, lead to an equal distribution of wealth and help reduce the regional inequalities in the economy.

Conversely, if taxes are imposed on useful products which are not essential, there is the possibility of curtailment of the consumption and production of these products. Consequently, the demand and production will be shifted to the less useful items. Such misallocation of the scarce resources will not be in the interest of the community.

5.4.1 Effects of Taxation on Price

Effects of a tax can be both beneficial and harmful. Its harmful effects are termed its *burden* and are conventionally divided into its *money burden* and *real burden.* The former represents a reduction in the disposable income of the taxpayers and is further subdivided into direct and indirect money burden components. *Direct money burden equals* the amount of tax paid by the taxpayers to the authorities. However, the very fact of imposition and collection of a tax entails a variety of additional costs to the taxpayers and these are termed its *indirect money burden* or 'cost of compliance'. Factually, however, the term 'cost of compliance' should be accorded a broader meaning and should also include time and effort spent by the taxpayers as also mental pressure borne by them.

The harmful *effects* of a tax, such as a loss of employment and production, are termed its *real burden.* It is broadly equated with the loss of welfare of the community as a whole. Real burden itself may be divided into two parts, direct and indirect. 'Direct real burden' of a tax is the direct loss of welfare of the taxpayers attributable to it, while its spill over ill-effects are termed its 'indirect real burden'. Both these measures are gross and not 'net of benefits' of the said tax.

Excess Burden

Net loss of welfare caused by a tax is termed its 'excess burden'. Assuming that a free market economy yields the best possible results and any deviation therefrom constitutes an excess burden, Musgrave asserts that the excess burden upon taxpayers results from: (a) an interference with the consumer choice, (b) changes in factor supply and hence total output, and (c) changes in employment through changes in aggregate demand.

Alternative Meanings of Tax Incidence: Mrs. Ursula Hicks uses the terms *formal* and *effective incidence* of a tax. To her, formal incidence of a tax is that portion of incomes of the taxpayers which they surrender to the government agencies for financing the provision of their collective wants. This financing may take the form of direct tax payments or the indirect route of sale-purchase transactions. In the latter form, impact and incidence of a tax differ from each other.

Thus, formal incidence of a given tax equals revenue receipts of that tax, while formal incidence of the entire tax system equals aggregate tax receipts of the authorities.

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In contrast, *effective incidence of a tax (or the entire tax system) is the sum total of its effects*. It includes all the advantages and disadvantages which an economy derives from a tax or the entire tax system. It is nearly impossible to properly estimate the effects or effective incidence of a tax because for that we have to compare two situations, one with the presence of the said tax and the other without it. And one of these two situations is always hypothetical. Thus, if the tax under consideration is already in existence, we have to compare the existing situation with the one which would have been there without that tax. Similarly, if the tax in question is not being levied, we need to know the situation which would result if it is levied.

Musgrave uses the term incidence of a tax in a different sense. When a tax is imposed, or its rates etc., are revised, the effects are felt in different spheres of the economy. The incidence of a tax is the *resulting change in the distribution of income* available for private uses. The distributional effects of changes in a particular tax are called *specific tax incidence.* On the other hand, assuming that the government is interested in choosing between alternative ways of raising a given amount of real resources by means of taxation, the distributional changes that result as one such tax is substituted for another are referred to as the *differential tax incidence*. It need not be mentioned that the meaning chosen by Musgrave is one of the several alternative meanings and his choice is purely arbitrary.

Forward and Backward Shifting

As stated above, incidence of a tax can be shifted only through a sale/purchase transaction. For example, if a producer is asked to pay an excise duty on his product, he may enhance its sale price or may force his suppliers of inputs to accept lower prices. In the former case, it is termed forward shifting. In it, the producer collects a portion of the tax from the customers and shifts a portion of the tax burden forward. Since a tax is shifted through the means of a price variation, in the case of forward shifting, the price of the commodity or service through which the tax is being shifted, will increase. On the other hand, it becomes a case of backward shifting, if the tax is shifted through the vehicle of purchase transactions. In our example, backward shifting will occur if the producer reduces the purchase price(s) of an input (inputs). It must be emphasized that along with an imposition of a tax, there is a likelihood of changes in the demand and supply flows of the taxed good implying that the price of a good also undergoes a change over and above the one brought about by the sheer fact of tax shifting. Conceptually, however, only that portion of changes in price represents a shift in the incidence of a tax which can be attributed to it and not the component of price change attributable to an extraneous shift in demand and supply flows. A modern economy is characterized by a dynamism of its demand and supply forces and accordingly, it becomes quite difficult to estimate the price that would have been there in the absence of the tax. Furthermore, it is not necessary that a tax must be shifted only forward *or* backward. It can shift partly in each direction, depending upon the sales/purchase transactions involved and the market forces at work. It is also self-explanatory that over time, shifting of tax incidence can change its direction from forward to backward and *vice versa.*

Shifting of Incidence through Tax Capitalization

Shifting of periodic taxes on multi-use ('durable') items like buildings and cars takes place through what is termed 'tax capitalization', that is, a reduction in the purchase price offered by the purchaser of the taxed item. It means that the 'present worth' of the future tax payments is estimated and the offered purchase price of the taxed item is

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reduced. However, such a reduction in offered purchase price need not be equal to the estimated 'present worth' of the stream of future tax liabilities. It may be greater or smaller than that.

Accordingly, an equivalent of the future tax payments is found in terms of the present value and the purchase price of the item is reduced by a part or full amount of that value. Such a reduction in the purchase price is termed *tax capitalization.* The principle of tax capitalization can be understood by looking at the way the buyer is supposed to work out the offer price for a durable taxed item.

Let $R_1, R_2, R_3,..., R_n$ be the money receipts (or money equivalents of the services) which the taxed item is expect to yield to its owner during time intervals 1, 2, 3, ..., n in the future. Let $T_1, T_2, T_3,..., T_n$ be the amounts of taxes to be paid out of these receipts $R_1, R_2, R_3,..., R_n$. Let $r_1, r_2, r_3,..., r_n$, be the rates of interest for periods 1,2,3,..., n, respectively. Then the present worth of the net receipts from the taxed item under consideration is given by:

$$PW = \frac{R_1 - T_1}{(1+r_1)} + \frac{R_2 - T_2}{(1+r_2)^2} + ... \frac{R_n - T_n}{(1+r_n)^n} = \sum_{t=1}^{n} \frac{R_i - T_i}{(1+r_i)^i}$$

The price offered by the purchaser is guided by PW. It obviously falls (rises) as the tax amount rises (falls).

5.4.2 Imposition of a Specific Commodity Tax

Let the demand and supply functions be given by $P = p(q)$ and $S = s(q)$ respectively. Then the *pre-tax* equilibrium is given by $P = S$, that is, by:

$$p(q) = s(q) \quad ...(1)$$

Let a specific commodity tax at the rate of t per unit be imposed. If it is levied on the buyers, the demand function is altered to $p(q) - t$, and the post-tax equilibrium is given by:

$$p(q) - t = s(q) \quad ...(2)$$

and if it is levied on the sellers, the supply function is altered to $s(q) + t$ and the post-tax equilibrium is given by:

$$p(q) = s(q) + t \quad ...(3)$$

Note that (2) and (3) are equivalent conditions and can be used to arrive at the *change* in output and price resulting from the imposition of tax t. If we differentiate (3) with respect to t, we can find the change in equilibrium output, dq/dt in response to t. Thus,

$$p'(q)\frac{dq}{dt} = s'(q)\frac{dq}{dt} + 1$$

which gives

$$= \frac{dq}{dt} = \frac{1}{p'(q) - s'(q)} \quad ...(4)$$

Similarly, for finding the change in equilibrium price, dp/dt, we differentiate $p = p(q)$ with respect to t and get $dp/dt = p'(q).dq/dt$. Substituting in it the value of dq/dt from (4), we get

$$\frac{dp}{dt} = \frac{p'(q)}{p'(q) - s'(q)} \quad ...(5)$$

Let us apply the above generalized case to specific linear demand and supply functions. Let

$$P = a + bq \quad ...(6)$$

and

$$S = m + nq \quad ...(7)$$

Then the pre-tax equilibrium is given by

$$a + bq = m + nq$$

from which we get the pre-tax equilibrium output

$$q = \frac{a - m}{n - b} \quad ...(8)$$

Substituting the value of pre-tax equilibrium output q in (6), we get the pre-tax equilibrium price, that is

$$p = a + b\frac{a - m}{n - b} \quad ...(9)$$

The post-tax equilibrium is given by $P = S + t$, or $P - t = S$, that is, by

$$a + bq - t = m + nq$$

so that post-tax equilibrium output

$$q = \frac{a - t - m}{n - b} \quad ...(10)$$

and *change* in output is given by subtracting Eqn. (8) from Eqn. (10), that is

$$\Delta q = \frac{a - t - m}{n - b} - \frac{a - m}{n - b} - \frac{t}{b - n} \quad ...(11)$$

For post-tax equilibrium price, substitute the value of post-tax output in $P = a + bq$, which gives

$$a + b\frac{a - m - t}{n - b} \quad ...(12)$$

From Eqn. (9) and (12), we get the change in price due to tax t per unit, that is

$$\Delta p = \left[a + b\frac{a - m - t}{n - b}\right] - \left[a + b\frac{a - m}{n - b}\right] = \frac{bt}{b - n} \quad ...(13)$$

Imposition of an *Ad Valorem* Tax

Now let us take the case of an *ad valorem* commodity tax levied at the rate of tP so that post-tax equilibrium becomes $(1-t)p(q) = s(q)$, which may be differentiated with respect to t to get the value of dq/dt.

Thus we get

$$p'(q)\frac{dq}{dt} = p(q) - tp'(q) - tp'(q)\frac{dq}{dt} = s'(q)\frac{dq}{dt}$$

from which

$$\frac{dq}{dt} = \frac{p(q)}{(1-t)\,p'(q) - s'(q)}$$

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Substituting the value of $\frac{dq}{dt}$ in $\frac{dp}{dt}$

Note that if an *ad valorem* tax at the rate T_c is levied on cost, then it can be worked out to show that **equation missing.**

The conclusion of *ad valorem* tax on demand side can be applied to the case of linear demand and supply functions. Thus with demand function $P = a + bq$ and supply function $S = m + nq$,

Alternatively, in pre-tax position, equilibrium output is $(a - m) / (n - b)$ and equilibrium price P_0 is $a + b(a - m) / (n - b)$

In post-tax equilibrium $(1 - t)(a + bq) = m + nq$, output is $[a(1 - t) - m]/[n - b(1 - t)]$ and, therefore, post-tax equilibrium price is $P_1 = a + b\,[a - at - m]/(n - b + b_t)$

Accordingly, increase in price $\Delta P = P_1 - P_0 = b\,[t(bm - an)]/[(n - b)^2 + t(nb - b^2)]$

It can be shown that if an *ad valorem* tax at the rate of *Tc* on cost is levied, then $\Delta P = b\,[TC\,(bm - an)]/[(n - b)^2 + TC\,(n^2 - nb)]$

5.4.3 Incidence of Some Selected Taxes

1. Tax on Monopoly

A monopolist, by definition, fixes the output and supply price of his product so as to get the maximum possible profits, which in turn are given by a position where marginal cost equals the marginal revenue ($MC = MR$). Now, if a tax is imposed upon monopoly profits, the monopolist cannot choose a better position of supply and price so as to increase his profits out of which to pay the tax. Actually he is supposed to have chosen the maximum profit position even if no tax on monopoly profits is imposed. This conclusion remains valid whether the tax on monopoly profit is a lump sum or a proportionate tax. We can also say that imposition of such a tax does not shift the demand or supply curve and so the sale price of the commodity does not change. Without a sale price variation, obviously, the tax cannot be shifted. Thus, in Figure 5.1 the monopoly profit, in the absence of a tax, is given by the area *QPSR*. If the authorities collect a part of this profit by way of taxation, the monopolist has no means of shifting the tax on to the consumers. This is because the positions of the cost and revenue curves cannot shift to his advantage and he cannot collect a pre-tax profit larger than *QPSR*. Had it been possible for him, he would have done so even in the absence of a tax.

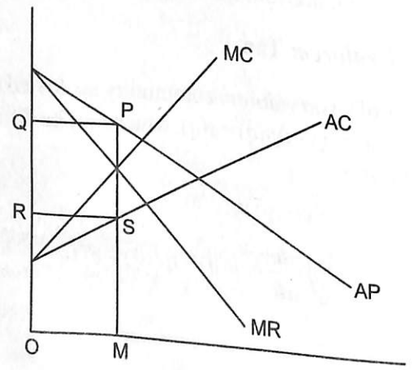


Fig. 5.1 Amount of Good Demanded/Supplied

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If however, a tax is imposed on the sales (specific or *ad valorem*) or on the buyers, the supply curve or demand curves will shift accordingly and the tax incidence will be shared (provided the monopoly product is not subject to constant returns).
As in the case of competition, we can put the analysis of incidence of commodity taxation under monopoly also in algebraic terms. We already know that for the demand function $P = p(q)$, the change in price on account of a per unit tax t is given by

$$\frac{dp}{dt} = -p'(q)\frac{dq}{dt}$$

Now in order to get the value of *dq/dt*, we proceed as follows. The total revenue function is $TR = q.\,p(q)$, and therefore the marginal revenue function

$$MR = \frac{d(TR)}{dq} = q.p'(q) + p(q).$$

Similarly, the total cost function [for the initial cost function $S = s(q)$] is given by $TC = q.s(q) + tq$ and therefore the marginal cost function is

$$MC = q.s'(q) + s(q) + t$$

Now in monopoly equilibrium, $MR = MC$, which gives

$$q.p'(q) + p(q) = q.s'(q) + s(q) + t$$

Differentiating with respect to t, we get

$$\frac{dq}{dt}p'(q) + q.p''(q)\frac{dq}{dt} + p'(q)\frac{dq}{dt} = q.s''(q)\frac{dq}{dt} + s'(q)\frac{dq}{dt} + s'(q)\frac{dq}{dt} + 1$$

or

$$\frac{dq}{dt} = \frac{1}{2[p'(q) - s'(q)] + [q''(q) - s''(q)]}$$

Substituting this value of $\frac{dq}{dt}$ in $\frac{dp}{dt} = p'(q)\frac{dq}{dt}$, we get

$$\frac{dq}{dt} = \frac{p'(q)}{2[p'(q) - s'(q)] + q[p''(q) - s''(q)]}$$

If the demand and supply functions are linear and are given *by* $p = a + bq$ and $S = m + nq$, then $p'q = b$ and $s'(q) = n$, so that

$$\frac{dp}{dt} = \frac{b}{2[b - n)]} = \frac{1}{2[1 - n/b]}$$

and for a tax t per unit the change in price is

$$\Delta P = \frac{1}{2[1 - n/b]}$$

Note that in this case the change in monopoly price depends upon the slopes, b and n of the demand and supply curves. For example, under constant returns, $n = 0$ so that $\Delta P = 0.5t$, that is, the price variation is half of that under perfect competition. Under diminishing returns, b is negative and n is positive, so that n/b is negative and $\Delta P < 0.5t$. Under increasing returns, both b and n are negative, so that n/b is positive. For stable equilibrium under increasing returns $|b| > |n|$ implying that $n/b < 1$. Now given that $n/b > 0$, but less than 1, we find that the value of ΔP depends upon the ratio n / b. If

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n/b is $= 0.5$, $\Delta P = t$; if $n/b < 0.5$, $\Delta P < t$; if $n/b > 0.5$, $\Delta P > t$. To put it differently, ΔP varies in the same direction as the numerical value of n and inversely with the numerical value of b.

Alternatively, in pre-tax situation, $P = a + bq$, so that total revenue function is $TR = aq + bq^2$ and $MR = a + 2bq$. Similarly, $MC = m + 2nq$. Now in pre-tax equilibrium $a + 2bq = m + 2nq$ from which pre-tax output is $qo = (am)/2(n\ b)$ and pre-tax price is

$$P_0 = a + b\frac{a-m}{2(n-b)}$$

On the other hand the post-tax demand function is given by $P = a + bq - t$, from which total revenue function is $TR = Pq = aq + bq - tq$, and $MR = a + 2bq - t$.

Therefore, post-tax equilibrium is $a + 2bq - t = m + 2nq$

from which post-tax output $q_1 = \dfrac{a-t-m}{2(n-b)}$

and therefore post-tax price $P_1 = a + b\dfrac{a-t-m}{2(n-b)}$

Therefore $\Delta P = P_1 - P_0 = \dfrac{bt}{2(b-n)} = \dfrac{1}{2(1-n/b)}$

In this case the change in price is one half of that under competition.

Now let us consider the case of ad valorem tax under monopoly. As before, let the demand function be $P = p(q)$ so that

$$\frac{dp}{dt} = p'(q).\frac{dq}{dt}$$

Further, let the post-tax demand function be $P = (1-t).\ p(q)$ from which total revenue function is $Pq = (1-t).\ p(q).q$, so that marginal revenue function $MR = (1-t)$ $[q.\ p'(q) + p(q)]$. Similarly, let the average cost function be $S = s(q)$, so that the total cost function $Sq = s(q).q$ and marginal cost $MC = s'(q).q + s(q)$.

In equilibrium $MR = MC$, that is, $(1-t)\ [q.p(q) + p(q)] = s(q).q + s(q)$

Differentiating with respect to t, we can get $\dfrac{dq}{dt}$.

$$(1-t)\left[q.p''(q).\frac{dq}{dt} + p'(q).\frac{dq}{dt} + p'(q).\frac{dq}{dt}\right] - [q.p'(q) + p(q)]$$

$$= q.s''(q).\frac{dq}{dt} + s'(q).\frac{dq}{dt} + s'(q).\frac{dq}{dt}$$

from which

$$\frac{dq}{dt} = \frac{q.p'(q) + p(q)}{2[1-t)p'(q) - s'(q)] + q[(1-t)p''(q) - s''(q)]}$$

Substituting the value of $\dfrac{dq}{dt}$ in $\dfrac{dp}{dt} = p'(q).\ \dfrac{dq}{dt}$, we get

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Let us apply the above conclusion to the case of linear demand and supply functions $P = a + bq$ and $S = m + nq$ so that $p'(q) = b$, $P^2(q) = 0$, $s'(q) = n$ and $s^2(q) = 0$.

Then $\dfrac{dp}{dt}$ becomes $\dfrac{b[q\ .\ b + (a+bq)]}{2[(1-t)b - n]} = \dfrac{a+2bq}{2[1-t-n/b]}$

Note that here the numerator is equal to marginal revenue.

Alternatively, the pre-tax equilibrium $MR = MC$ is given by

$$a + 2bq = m + 2nq$$

from which pre-tax output $q_0 = \dfrac{(a-m)}{2(n-b)}$

and pre-tax price $P_0 = a + \dfrac{b(a-m)}{2(n-b)}$

Similarly, post-tax equilibrium is given by $a\ (1-t) + 2b\ (1-t)\ q = m + 2nq$

which gives post-tax output $q_1 = \dfrac{a - at - m}{2[n - b + bt]}$

and post-tax price $P_1 = a + \dfrac{b}{2}\left[\dfrac{a-at-m}{[n-b+bt]}\right]$

Hence, change in price,

$$\Delta P = P_1 - P_0 = \frac{b}{2}\left[\frac{a-at-m}{n-b+bt} - \frac{a-m}{n-b}\right] = \frac{b}{2}\left[\frac{t(mb-an)}{(n-b)^2 + t(nb-b^2)}\right]$$

In case of *ad valorem* tax at the rate of T_c on cost, the change in price becomes

$$\Delta P_1 = \frac{b}{2}\frac{T_c[bm-an]}{(n-b)^2 + T_c(n^2 - nb)}$$

2. Tax on Oligopoly

Similar considerations apply to the case of a tax on oligopoly. An **oligopolist** is confronted with a demand curve which has a *kink* at the prevailing market price. Demand for the product of the oligopolist at prices higher than the one prevailing in the market is quite elastic, because if the oligopolist under consideration raises his price he is not followed by others. On the other hand, if he reduces his price he is followed by others and therefore the demand at lower prices is quite inelastic for his supply. This produces a kink in the demand curve and a vertical jump in the marginal revenue curve. So long as *MC* curve passes through this vertical portion of *MR* curve, the price and output of the oligopolist remain unchanged. Therefore, if the authorities impose a *specific* or an *ad valorem* tax which does not raise the *MC* curve so as to make it move out of this vertical range of the *MR* curve the incidence of the tax is borne by the oligopolist. In effect, this amounts to the seller facing a demand with zero price elasticity. On the other hand, if the tax is high enough to push the *MC* curve beyond this vertical range of *MR* curve, the price would rise and a part of the tax would be shifted to the consumers. A lump sum tax, it would be noted, does not shift the demand or the cost curves of the oligopolist and therefore the incidence of this tax remains on the oligopolist firm itself.

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3. Customs Duties

Customs duties are like commodity taxes. Here also the general rule is that a tax on a commodity is shared between the buyers and the sellers in the ratio of elasticities of supply and demand. Therefore what matters is the actual values of these elasticities, given the freedom of trade. These days, for example, the demand for petroleum products is sufficiently inelastic while supply is sufficiently elastic provided the petroleum exporting countries join hands. The petroleum exporting countries can take a concerted action to restrict supplies if the price offered is reduced. Thus, they can raise the export price of petroleum either directly or through imposing export duties and thereby make the foreigners pay. On the other hand, if the oil importing countries impose import duties on petroleum, then, for the reasons stated just now, these are least likely to be borne by the exporting countries.

Over the last few decades the dependence of developed countries on imports of several primary products has decreased. They have become net exporters of several items. Consequently, customs duties on such items levied by either importing or exporting countries tend to be borne by the developing countries. Similarly, developed countries have deep and huge domestic markets for sophisticated and technologically advanced items, while the developing countries are heavily dependent for these items on developed countries. By implication, developing countries are more likely to bear a major portion of incidence of customs duties even on these items. However, this state of affairs is gradually undergoing a transformation in the case of a few fast growing developing countries. Share of a country in aggregate international trade of an item has a direct bearing upon its capacity to shift the incidence of a customs duty imposed on it because, other things being equal, this share determines its capacity to influence price of that item in international markets. Normally, a country with a smaller sized economy suffers from this disability. This conclusion applies in the case of both exports and exports of a country.

The above analysis is based on the assumption of a free trade. To the extent the trade is not free and there are monopolistic types of restrictions either by privately owned firms or by governments in the form of quotas etc., the operation of demand and supply forces is restricted to particular segments of the world market and therefore the shifting of tax incidence has to be considered in the context of these segmented markets.

4. Tax on Profits

If no profit income enjoys a tax exemption, and if all profit incomes are subjected to a uniform tax-rate schedule, then this tax cannot be avoided by shifting the employment of entrepreneurship from one use to the other. However, even here, low elasticity of demand for some products may permit the shifting of tax incidence to buyers. In that case, post-tax profit in such industries would become more attractive and investment resources will tend to shift into these industries in the long run. Furthermore, to the extent tax incidence cannot be partially or fully shifted to the buyers, both saving and investment will be discouraged. It should however, be remembered that inter-industry mobility of investment and impact on saving and investment are not the incidence but effects of the said tax.

In general, however, it is nearly impossible to identify all sources of profits, estimate them and tax them evenly. In effect, therefore, taxes get levied in a discriminatory manner. Some profit incomes are either not taxed, or evade taxation. In the short run, therefore, the taxed profit incomes fall in comparison with the 'untaxed ones'. Whether the taxpayers are able to shift the tax incidence on to others or not depends upon the

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relevant elasticities of demand and supply of the goods and services from which the profit incomes are being derived, and the demand and supply elasticities of the inputs of these goods and services. In the long run, it may be possible, in some cases, to shift the resources out of the taxed industries and if that happens, a part of the tax may be shifted on to others.

5. Taxes on Property

Property may be divided into two parts: (i) durable consumption goods, and (ii) capital goods.

Durable consumption goods include self-occupied residential houses, cars, furniture, and jewellery etc. When these goods are taxed, their current owners suffer a reduction in net satisfaction derived from their consumption. Moreover, the potential buyers of these goods would reduce their offer prices to compensate for the tax liability. Therefore, in their case, tax incidence is likely to be shifted backward only, unless this is more than counterbalanced by supply scarcity.

Capital goods may be classified into two categories, n.. nely financial assets and physical means of production like machinery, equipment, etc.

Financial assets: In general, the owners of financial assets are better aware of tax rates (current and impending) and likely changes in them. The market for financial assets is highly sensitive (responsive) to any changes in returns. Therefore, a selective tax on some financial assets induces a shift out of the taxed assets into the non-taxed ones. It means that the holders of the taxed assets try to sell them while their buyers reduce their offered prices. Therefore, in the case such taxed assets, a backward shift of tax incidence takes place and pre-tax (gross) average rate of return on them moves up. Correspondingly, increased preference of buyers for non-taxed assets pushes up their prices with a consequent reduction in the average rate of return on them. This tendency continues till post-tax rate of return on taxed assets becomes equal to the rate of return on non-taxed assets.

Physical assets: It follows from our discussion above that the possibility of backward shifting of incidence exists in this case also through tax capitalization. The extent of this backward shifting will obviously depend upon the demand and supply elasticities of the taxed goods. Similarly, there is also a possibility of forward shifting of incidence. Its likelihood gets stronger under conditions of strong demand and/or scarcity.

In this context, we should also examine whether the tax on a physical asset adds to the fixed cost or variable cost of production. In the short run, taxing like items of machinery adds to fixed cost with no change in marginal cost (which depends upon a change in variable costs). By implication, in the short run, the supply conditions do not change (since the suppliers base their decisions on *MC* and *MR* only). In the long run, however, all factors become variable and therefore a tax on any of them adds to the *MC*. This, accordingly, pushes up the price of the product and a forward shifting may take place.

It is possible that shifting of a tax on a capital good may take place in several stages. This is because in a modern economy, most consumption goods pass through several production stages before they reach the final consumers; and inputs used in them are either capital goods or other intermediate products. Taxation of capital goods, therefore, may generate a series of price variations covering successive stages of production.

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6. Tax on Houses/House Rents

A tax on house properties as such is also subject to usual forces of tax capitalization. The purchasers of houses try to shift the tax back through a reduction in the initial purchase prices. However, since houses are often rented out, a further possibility of shifting the tax on to the tenants also exists. In the short run, the supply of the houses is sufficiently inelastic and that works towards keeping the incidence on the house owners. However, if the demand for houses is also inelastic, a forceful tendency for house rents to go up will also exist simultaneously. The net result regarding the sharing of the tax incidence will depend upon the relative strength of the two short term elasticities. In the long run, however, if investment in houses becomes less profitable, further construction of houses will be discouraged and therefore the tax incidence will again tend to settle on the tenants.

If instead of houses as such, a tax is imposed on house rents, its sharing will depend upon the relative strength of elasticities of demand and supply. Again, the extent to which the tax incidence is borne by the house owners, investment in houses will be discouraged. This will reduce the supply of houses in the long term and would raise the house rents further. It appears, therefore, that unless all investment incomes are taxed simultaneously, a tax on house rents will tend to push the incidence on to the tenants.

7. Inheritance and Gift Taxes

Different views are put forth regarding the incidence of inheritance taxes. According to some people the incidence is upon the testator who is leaving behind the estate to be taxed. It is stated that the only difference between a straightforward tax on this inheritance and other property is that in the former case the tax is paid only after the death of the testator. It is also argued that the testator may have planned to save additionally so as to leave a given value of the after tax estate to the successors, in which case again the incidence should be considered to have fallen on him.

However, these arguments are misplaced and also tend to confuse the issue. *Firstly,* it must be remembered that the dead do not pay taxes. And so the incidence of the inheritance taxes cannot be on the testator. Also this tax does not discriminate between two situations where in one the testator saved additionally to leave a given value of after tax estate and in the other in which he did not. *Secondly*, the inheritance tax is levied not on the value of the estate as such but on the portion of it inherited by a successor. The rate of inheritance tax will depend upon the value of the inheritance and other relevant factors connected with the tax paying capacity of the successor. The fact that the incidence of the tax is on the successor can be seen simply by comparing the inheritance going to a successor with and without the tax. If the tax rate is increased, or reduced, it is the successor who will be immediately affected. As Adam Smith says: 'Taxes upon the transference of property from the dead to the living, fall finally as well as immediately upon the person to whom the property is transferred.' If the testator changes his policy with regard to saving effort or the division of the property in his will, it will be a part of the effects of this tax and not the incidence itself.

Similar considerations apply to the case of gift taxes also. Take the case when the tax is levied on the gift recipient. A comparison of the two situations, namely the addition to the resources of the gift recipient with and without a tax would clearly show that the incidence of a gift tax lies not on the giver but on the one who receives it. The argument is further strengthened by the fact that the tax schedule is related to the amount of each gift individually (or the total gifts which one might *receive*) and not to the total gifts which one might be making. The possibility of gift giver revising the gift amount in the light of the possible tax would fall in the realm of the tax effects. In case the tax is levied on the donor, the incidence also lies on him. As an *effect* of it, the donor might alter the gift amount/s.

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8. Tax on Net Income

Net income here refers to the income of an individual or family, as the case may be, net of the expenses incurred for earning that income. It is not to be equated with receipts during a given period of time. A tax on net income may be specific or general, that is to say, it may be levied only on incomes from specified sources or on all incomes irrespective of their sources. Also income taxation may discriminate between 'earned' and 'unearned' incomes and the schedules of tax rates may be different for the same amounts of income but of different kinds.

A specific income tax is an incentive for income earners to shift their work effort to non-taxed sources of income. And those who cannot do so will try to shift the incidence of their tax liability through forward and/or backward shifting.

However, a tax on income in general is more likely. In this case, it will not be possible to avoid the tax by shifting employment. Shifting of tax incidence will take place only if the post-tax incomes of the taxpayers fall below subsistence. In all other cases, the tax incidence will lie upon the tax assessees and it will be so even if the rates of taxation are progressive since higher tax rates can be avoided only by not earning more. Even taxing earned and unearned incomes at different rates would not make any difference to the outcome of tax incidence. Shifting of income from unearned into earned categories cannot take place so as to lighten the burden of taxation since it is an impractical proposition.

However, the above conclusion will change if the tax administration is weak, so that some categories of income earners are able to evade the tax. In that case, on account of ineffective tax administration, it amounts to taxing some sources of income and leaving others out.

5.5 ELASTICITY AND BUOYANCY OF TAX

Elasticity and buoyancy of tax highlight the reasons for an increase in the yield of tax over time and/or in response to a change in its rate.

Buoyancy

An increase in revenue of a tax on account of a growth of its base is termed its buoyancy. A buoyant tax has an inherent tendency to yield greater tax revenue with the growth of *its base.* Thus, for example, with a given rate-structure of income tax and the definition of taxable income, if yield from income tax increases with an increase in national income, it would be termed as buoyant tax. Similarly, excise duties are levied on production of specified goods. If additional items are not brought under these duties and the rate structure of existing duties also remains unchanged, but the revenue from excise duties still increases with an increase in the production of excisable items, we have a case of buoyancy of excise duties. It is clear that the concept of buoyancy may be applied to an individual tax or to a wider body of taxes. Numerically, the buoyancy of an individual tax is measured as a ratio of the proportionate increase in its revenue to a proportionate increase in its base.

Check Your Progress

8. How does reduction in the purchasing power lead to low efficiency?
9. What is the reason for the effects of taxation on peoples' willingness to work, save and invest?
10. What is tax burden and how can it be divided?
11. Who is a monopolist?

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Symbolically, buoyancy of an individual tax, T, with a base B, is given by the ratio of {proportionate change in tax revenue}/{Proportionate change in tax base}, that is

$$B_t = \{\Delta T/T\}/\{\Delta B/B\} = \{\Delta T/B\}\{B/T\}$$

Variations in both tax revenue and its base are estimated over a given time period. A measure over a shorter time interval is likely to be less representative because economic data, by their very nature, tend to fluctuate more violently over shorter periods of time.

- The numerical value of B_t increases if the rate of increase in tax revenue is faster than that of its base. It goes without saying that several factors contribute to the buoyancy of a tax under consideration, such as, the definition of its base, its rate structure, procedural rules and regulations, and so on.

The concept of tax buoyancy can be extended to cover the entire tax system of the country, or entire tax system of one government (Central, State or Local) of the country, or some other combination of taxes and governments.

Elasticity

The yield of a tax may also vary in response to an extension of its **coverage** or a revision of its **rate**. The former is in the nature of an increase in its base through a modification of its legal definition. For example, legal definition of taxable income of an individual may be revised by disallowing deduction of expenses incurred on conveyance to and from workplace. The ratio of a proportionate change in revenue of a tax to the proportionate change in its rate and/or coverage measures its elasticity. Symbolically, elasticity of an individual tax, T, is given by the numerical value of

$$E_t = \{\Delta T/T\}/\{\Delta CR/CR\} = \{\Delta T/\Delta CR\}\{CR/T\}$$

where CR denotes coverage and/or rate of the tax T. It is noteworthy that when elasticity of a tax is measured with reference to its base, it (in a way) becomes a case of its buoyancy with the difference that, as in the case of a rate revision, the increase in the base is a result of a deliberate government action with the purpose of increasing receipts of tax revenue. It would, therefore, be better if we use phrases like 'rate elasticity of an excise tax' (corresponding to, price elasticity of demand for good X), or 'base elasticity of an excise tax' and so on.

This leads us to an important and relevant observation. A change in the rate of tax T would yield an equi-proportionate change in its revenue provided there is no change in its base. On the other hand, if change in the rate of a tax also causes a change in its base, the change in tax revenue will be the sum total of the two effects generated by it, which may be termed the 'rate effect' and the 'base effect'. Arthur Laffer called them 'arithmetic effect' and 'income effect'. Laffer is credited with explaining and elaborating this two-headed effect of a change in rate of ***income tax*** on the corresponding receipts of its revenue in the form of 'tax revenue as a function of tax rates', and representing it graphically.

Check Your Progress

12. What is buoyant tax?
13. According to Laffer, what are the effects generated by any change in income tax rate?

5.6 SUMMARY

In this unit, you have learnt that:

- A multiple tax system has widespread ramifications on the economy and different kinds of taxes have different kinds of effects on the private business. Taxes affect the economy in many ways by affecting macro variables like consumption, saving, investment, price structure, price levels and work effort.

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- Direct taxes include personal and corporate income taxes on current earnings, wealth tax and gift tax on transfer of property. Indirect taxes include excise duty, sales tax, custom duties and a number of other taxes imposed by the States.
- The impact of income taxation on the growth of private business in general, and on private investment in particular, may be examined through its effects on (i) people's work-efforts; (ii) saving of the households in general and of private firms in particular and (iii) incentive and ability to invest.
- The effect of taxation on private enterprise depends, among other things, on how income tax affects people's desire to work.
- Taxation of personal income reduces return from labour and, therefore, it alters peoples' choice between leisure and work. When a tax is imposed or income tax rate is increased, wage income decreases.
- Tax effect on work efforts depends on: (i) the level of income; (ii) tax-rates—proportional, progressive or regressive; (iii) the productivity or marginal efforts and (iv) non-monetary benefit, such as free accommodation, education of children, health care, travel benefits, etc.
- Incidentally, as regards the effect of indirect taxes, economists generally compare it with the effect of income tax. Since there is no definite measure of income tax effect on work effort, nothing definite can be said about the effect of indirect taxes too.
- It is believed that the negative effect of indirect taxes on work effort is less than that of income tax because workers can avoid indirect taxes by consuming less of a taxed commodity, which is not possible under income tax.
- Commodity taxes are classified either as a:
  (i) Specific Tax
  (ii) *Ad Valorem* Tax
- When a tax is imposed on a commodity according to its weight, size or measurement, it is called a specific tax. For instance, when the excise duty is imposed on sugar on the basis of its weight or a piece of cloth is taxed according to its length or a tax on a picture is levied on the basis of its size, it is known as a specific tax.
- When the tax is levied on a commodity according to its value, it is termed as an ad valorem tax. Whatever may be the weight or size of the unit of the commodity, the tax is charged according to its value. Several imported commodities are taxed not according to their weight or size but according to their value.
- The study of incidence and shifting of taxes is most important in the domain of public finance. The objective of the study is to enquire about the class, section or group of individuals who ultimately bear the burden of taxation.
- The incidence of tax means the final money burden of a tax. Whenever a tax is levied, its money burden falls on some individual. Under the tax incidence, we try to find out as to where the money burden actually falls or who bears the burden of a tax.
- Sometimes a distinction is made between the impact and an incidence of a tax. The impact of a tax is the first point of contact of the tax with the taxpayers, i.e., the impact of a tax falls on the person who pays the tax in the first instance. The incidence of a tax refers to the final or ultimate burden of a tax.

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- The problem of the impact of tax as distinct from the incidence of tax does not occur in the case of direct taxes because the person who pays the income-tax cannot shift it on others. He will have to pay the tax from his own pocket. The distinction between the impact and incidence of a tax becomes, however, very prominent in the case of indirect taxation.
- The effects of taxation on production and economic growth in the economy may be analysed under the following three heads:
  - o Effects of taxation on peoples' ability to work, save and invest
  - o Effects of taxation on peoples' willingness to work, save and invest
  - o Effects of taxation on the allocation of resources between different trades and regions
- Reduction in the purchasing power due to taxation would lower the standard of living which, in turn, results in low efficiency. Lower efficiency would lead to lower income which would further lead to low efficiency.
- The effects of taxation on peoples' willingness to work, save and invest are partly due to the money burden of tax and partly due to the psychological state of the taxpayers.
- The government can use its tax policy to divert the scarce resources of the country in the desired productive activities. Thus, taxation can influence not only the size of production but also the pattern of production in the economy.
- Effects of a tax can be both beneficial and harmful. Its harmful effects are termed its burden and are conventionally divided into its money burden and real burden.
- Land rent, according to Ricardian theory, arises due to the fact that (a) agricultural production is subject to the law of diminishing returns and (b) with increasing population and demand, the supply of agricultural output and hence the marginal cost of production increases.
- A monopolist, by definition, fixes the output and supply price of his product so as to get the maximum possible profits, which in turn are given by a position where marginal cost equals the marginal revenue (MC = MR).
- An oligopolist is confronted with a demand curve which has a kink at the prevailing market price. Demand for the product of the oligopolist at prices higher than the one prevailing in the market is quite elastic, because if the oligopolist under consideration raises his price he is not followed by others.
- Property may be divided into two parts: (i) durable consumption goods, and (ii) capital goods.
- A tax on house properties as such is also subject to usual forces of tax capitalization. The purchasers of houses try to shift the tax back through a reduction in the initial purchase prices. An increase in revenue of a tax on account of a growth of its base is termed its buoyancy. A buoyant tax has an inherent tendency to yield greater tax revenue with the growth of its base.
- Numerically, the buoyancy of an individual tax is measured as a ratio of the proportionate increase in its revenue to a proportionate increase in its base.
- It goes without saying that several factors contribute to the buoyancy of a tax under consideration, such as, the definition of its base, its rate structure, procedural rules and regulations, and so on.

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- The ratio of a proportionate change in revenue of a tax to the proportionate change in its rate and/or coverage measures its elasticity.
- A change in the rate of tax T would yield an equi-proportionate change in its revenue provided there is no change in its base. On the other hand, if change in the rate of a tax also causes a change in its base, the change in tax revenue will be the sum total of the two effects generated by it, which may be termed the 'rate effect' and the 'base effect'.

5.7 KEY TERMS

- **Specific tax:** When a tax is imposed on a commodity according to its weight, size or measurement, it is called a specific tax.
- ***Ad valorem* tax:** When the tax is levied on a commodity according to its value, it is termed as an *ad valorem* tax.
- **Tax burden:** The incidence of tax means the final money burden of a tax.
- **Monopolist:** A monopolist, by definition, fixes the output and supply price of his product so as to get the maximum possible profits, which in turn are given by a position where marginal cost equals the marginal revenue (MC = MR).
- **Buoyancy:** An increase in revenue of a tax on account of a growth of its base is termed its buoyancy.

5.8 ANSWERS TO 'CHECK YOUR PROGRESS'

1. Direct taxes include personal and corporate income taxes on current earnings, wealth tax and gift tax on transfer of property. Indirect taxes include excise duty, sales tax, custom duties and a number of other taxes imposed by the States.
2. The effect of taxation on private enterprise depends, among other things, on how income tax affects people's desire to work.
3. Tax effect on work efforts depends on: (i) the level of income; (ii) tax-rates—proportional, progressive or regressive; (iii) the productivity or marginal efforts and (iv) non-monetary benefit, such as free accommodation, education of children, health care, travel benefits, etc.
4. When a tax is imposed on a commodity according to its weight, size or measurement, it is called a specific tax. For instance, when the excise duty is imposed on sugar on the basis of its weight or a piece of cloth is taxed according to its length or a tax on a picture is levied on the basis of its size, it is known as a specific tax.
5. The main advantage of an ad valorem tax is that it imposes a greater burden on the richer sections of society. From this point of view, an ad valorem tax is more equitable than a specific tax.
6. The study of incidence and shifting of taxes is most important in the domain of public finance. The objective of the study is to enquire about the class, section or group of individuals who ultimately bear the burden of taxation.
7. Sometimes a distinction is made between the impact and an incidence of a tax. The impact of a tax is the first point of contact of the tax with the taxpayers, i.e., the impact of a tax falls on the person who pays the tax in the first instance. The incidence of a tax refers to the final or ultimate burden of a tax.

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8. Reduction in the purchasing power due to taxation would lower the standard of living which, in turn, results in low efficiency. Lower efficiency would lead to lower income which would further lead to low efficiency.
9. The effects of taxation on peoples' willingness to work, save and invest are partly due to the money burden of tax and partly due to the psychological state of the taxpayers.
10. Effects of a tax can be both beneficial and harmful. Its harmful effects are termed its burden and are conventionally divided into its money burden and real burden.
11. A monopolist, by definition, fixes the output and supply price of his product so as to get the maximum possible profits, which in turn are given by a position where marginal cost equals the marginal revenue (MC = MR).
12. With a given rate-structure of income tax and the definition of taxable income, if yield from income tax increases with an increase in national income, it would be termed as buoyant tax.
13. Laffer himself argued that any change in income tax rate generates two effects, namely, (a) arithmetic effect, and an (b) economic effect.

5.9 QUESTIONS AND EXERCISES

Short-Answer Questions

1. How can the impact of income taxation on the growth of private business in general and on private investment in particular be examined?
2. Under which condition will 'the worker tend to substitute leisure for work'?
3. 'Taxation has both negative and positive effects on labour supply'. Give your views.
4. State the advantage and disadvantage of specific tax.
5. What is tax incidence? What is the main focus of the study of incidence and shifting of taxes?
6. What is Musgrave's specific and differential incidence?
7. How can the effect of taxation on production and economic growth be analysed?
8. What is excess burden? According to Musgrave, how does this burden result?
9. Write a note on the diffusion theory of tax shifting.
10. How are custom duties similar to commodity taxes?
11. What do the terms elasticity and buoyancy of tax mean?

Long-Answer Questions

1. Assess the concept of tax on income and its effect on work effort.
2. Discuss the classification of commodity tax.
3. Critically analyse the concept of impact and incidence.
4. Differentiate between impact and incidence of a tax.
5. Describe the effects of taxation on production in different market conditions.
6. Discuss the effects of taxation on price.

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7. 'Effects of a tax go far beyond its incidence'. Elaborate.
8. Describe the incidence of some selected taxes.
9. 'Elasticity and buoyancy of tax highlight the reasons for an increase in the yield of tax over time and/or in response to a change in its rate.' Explain.

5.10 FURTHER READING

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UNIT 6 PUBLIC BUDGET

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Structure

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6.0 INTRODUCTION

In nutshell, a public budget is a policy statement of the government with its financial implications. A typical modern government wants to undertake several economic and non-economic activities and pursue a set of policies which have their financial counterparts in the form of receipts, borrowings, and expenditures. Accordingly, the government describes its intentions and policies which it would like to pursue during the forthcoming period (usually a year) and draws up a financial plan corresponding to this scheme of things. Such a financial plan contains details of estimated receipts as also proposed expenditures and other disbursements under various heads. Therefore, a budget enables the government to decide about each individual item of revenue and expenditure in the overall context of its policies.

No government can afford to take taxation, borrowings, expenditure and other fiscal decisions at random. On account of their interdependence, all decisions and policies must be in harmony with its overall set of objectives. The whole approach has to be quite systematic if chaos and wastage are to be avoided. In this unit, you will get acquainted with the classification of public budget, differences between incremental and zero-based budgeting, different measures and types of deficits in budget, the problems of budget deficit in India and the measures to reduce different deficits.

6.1 UNIT OBJECTIVES

After going through this unit, you will be able to:

- Discuss the classification of public budget with special reference to incremental and zero-based budgeting
- Assess the differences between incremental and zero-based budgeting

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- Evaluate the different measures and types of deficits in budget
- Explain the concept of tolerable limits of deficit spending
- Analyse the problems of budget deficit in India
- Assess the measures to reduce different deficits

6.2 CLASSIFICATION OF PUBLIC BUDGET: INCREMENTAL BUDGET AND ZERO-BASED BUDGET

A *good budget* is one which satisfies criteria identified for a purpose and is prepared on the basis of well-recognized principles. One such principle is that the budget should be accompanied by an account of the performance of the fiscal policies and programmes of the government during the previous year. This provides a necessary basis for deciding as to what was to be done, what has been accomplished and what more should be aimed at and in what manner. It is noteworthy that several governments have experimented along these lines, and have drawn heavily upon the techniques used by the corporate sector. The Government of India has also undertaken such exercises (though partially and imperfectly) including the programme and performance budgeting and outcome budgeting.

Growing Complexity

In most countries including India, public budgets are becoming ever more complex for several reasons including the following:

- All ministries and administrative departments etc., of the government participate in the formulation of the public budget. However, it is extremely difficult for any single department/agency to have a direct and complete information of the *precise requirements and problems* of *all* other departments/agencies, etc.
- Preparing a new budget every year is a time consuming task, and paucity of time comes in the way of removing the above-said hurdles.
- On account of above-said limitations, the task of formulating a comprehensive and detailed budget (covering its policy contents, its size and composition, procedures for its implementation, and ensuring its internal compatibility, etc.) generally remains incomplete.
- The existing items of expenditure and allocations are generally tied to vested interests. Consequently, it is highly difficult to delete any major expenditure item or substantially reduce its size. Doing so is liable to create political resistance. As a result, it is not possible to frequently restructure the policy contents of the public budget.
- The hurdles in introducing major policy changes induce the authorities to ignore the need for a fuller internal coordination of the budget, and instead opt for expedient measures. The officials engaged in preparing the budget tend to stick to the framework of the previous budgets with only marginal changes therein. Though it is not an optimum way of budget formulation, it helps them in successfully tackling the complications of budget preparation.

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Budgets can be of various kinds—Executive, legislative, multiple, unified, cash-flow based, accrual based, revenue, capital, incremental and zero-based budgets. In this section, we will deal with incremental and zero-based budgets.

6.2.1 Zero-Based Budgeting

The thrust of zero-based budgeting (ZBB) is to increase the productivity of government expenditure to its highest feasible level. This concept has been borrowed from the commercial world, with this difference that while a commercial enterprise is expected to maximize its profit earnings, a government budget is expected to aim at maximizing aggregate social welfare, that is, the ingredients going into its targeted objective are different from those going into the targeted objective of a commercial enterprise. In ZBB, each department has to fully justify all functions that it proposes to retain or pick up. In addition, the amount of expenditure asked for each function has to be justified on the basis of a detailed cost-benefit analysis. ZBB is meant to prevent wastage in public expenditure and maximize its productivity. It is based upon the assumption that no department or any of its functions is indispensable and its existence and size has to be justified afresh every time a budget is prepared.

In the sphere of public spending, ZBB was first tried by Jimmy Carter in 1973 when he was the Governor of Georgia. Later on, it was adopted by a number of States in the USA.

Zero-Based Budgeting in India

India also thought of adopting it but in a very guarded and uncertain manner. The prevailing circumstances and rapidly increasing government expenditure justify the need for its adoption. This is in spite of the fact that, in our country, existing provisions for scrutinizing expenditure proposals are quite elaborate. Each proposal has to be cleared through a number of stages. But the irony of the situation is that this very elaboration results in inordinate delays and cost escalation, while several populist proposals are able to get through under pressure from vested interests. The reality is that there is hardly any effective system for evaluating our non-plan expenditure. Only in the last few plans, examination of some schemes resulted in their merger or scrapping. More precisely, Department of Science and Technology of GOI introduced ZBB on a limited scale in 1983. The Ministry of Finance decided in July 1986 that it should be introduced in all ministries. Some State governments also experimented with its introduction. But in effect, ZBB stands abandoned in our country.

As in every budgetary technique, ZBB has also its merits and demerits.

Merits of Zero-Based Budgeting

The merits of zero-based budgeting are as follows:

- It is claimed that ZBB ensures an efficient use of resources because its focus is on eliminating those schemes and functions of the government which have outlived their usefulness.
- Since a non-performing department may be downsized or even abolished, ZBB is an incentive for government officials to seek innovative methods of improving the productivity of public expenditure.
- Every government faces pressures from vested interests. ZBB helps it in withstanding these pressures. It dispels a false sense of security.

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- For all these reasons, ZBB helps the government in downsizing its inflated budgets. Evaluators of government services can ignore the impact of their findings on the total size of the budget.

Demerits of Zero-Based Budgeting

The demerits of zero-based budgeting are as follows:

- Implementation of ZBB is time consuming and entails a heavy resource-cost.
- It needs professional expertise, which is not available in every country.
- Most governments are legally bound to incur certain expenditures like interest payments, repayment of loans, meeting international obligations and so on.
- Frequently, it is not possible to identify evaluation criteria and assign them appropriate weights. Moreover, any set of criteria and their weights is bound to need an ongoing revision. Consequently, an evaluation is highly liable to be defective and subject to political and other influences.
- Socio-economic growth requires long term planning and long gestation schemes and projects, as also research efforts. ZBB militates against all these because of the uncertainty from one budget period to the next.
- Evaluators are prone to be interested in justifying the wings of government they are working in because otherwise they may lose their jobs.
- It is not possible to quantify the benefits of several government services. Examples include services like defence, maintenance of law and order, provision of justice, schemes for reducing poverty and increasing employment, growth-inducing measures, protection against cyclical fluctuations and global disturbances, improving standards of health, hygiene and education, and the like. In a modern economy, these types of non-quantifiable components of socio-economic welfare are increasing in both number and intensity, and the government cannot ignore them.
- Stretched to its logical conclusion, ZBB provides some absurd conclusions. For example, if the entire government is found working inefficiently (as may be the case in several backward and developing countries), should ZBB result in its own abolition?
- Discovering remedial measures is not an integral part of ZBB. It does not enlighten us about the ways in which government may improve its own functioning.
- ZBB does not prescribe whether the government budget should be a balanced one or not. It does not provide guidelines for the use of public debt as an instrument of fiscal policy.

6.2.2 Incremental Budgeting

It is noteworthy that analysts and policy makers are engaged in an ongoing search for additional useful forms of budgetary formulation and classification. It is also noteworthy that, leaving apart Zero-Based Budgeting (ZBB), all other formulations and classifications are derived from rearrangement of the existing budgetary segments and items supplemented with an appropriate explanation, if any. In other words, the basic ingredients of these so-called 'additional budgetary classifications' are already available in the conventional budget. In most countries including India, the conventional budget is dominated by the characteristics of what may be termed the **'incremental budgeting' (IB)** and for this reason it is worth knowing more about it.

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Definition

Incremental budgeting (IB) is a technique for formulating the public budget for the incoming year on the assumption that the items of the budget for the outgoing year are to be retained with/without some 'marginal' changes. It follows the policy of retaining the existing schemes and projects. Substantial changes in the tax system, revenue resources, public debt policy, and expenditure items are avoided. This budgeting technique follows long-established conventions and commitments and, by doing so, it protects the existing beneficiaries of vested interests.

Facts

Factually speaking, it is highly difficult to identify a public budget which strictly fits in the foregoing definition. It is quite difficult to have an 'undiluted' or a 'pure' incremental budget. But public budgets can be (and often are) predominantly 'incremental' in nature. There are several reasons why a public budget fails to be a full-fledged 'incremental budget'.

- Economic, social and political circumstances of a country are always undergoing a change, and the same cannot be ignored too long in its public budgets.
- Domestic policies, including fiscal ones, have to respond to continuously changing international circumstances.
- It is not possible to maintain a long-term and stable balance between competing vested interests. New vested interests keep emerging and some of the existing ones get weakened. But it should be remembered that budgetary changes on account of vested interests are possible only when political climate favours the same.

Arguments in Favour of Incremental Budgeting

The arguments in favour of incremental budgeting are:

- It spells a long-term budgetary stability and facilitates implementation of ongoing fiscal policies.
- IB does not inflict disruptive socio-economic changes upon the country.
- Formulation of IB poses minimal problems. All units (ministries, departments, etc.) engaged in its preparation are able to easily project their resource needs for the incoming fiscal year on the basis of a few leading variables like the provisions in the 'outgoing year' and expected increase in prices, etc.
- All the ministries, departments, projects and schemes, etc. derive the benefit of long-term continuity.
- Normally, in this system, there is no scaling down of provisions for any ministry, department, scheme or a project. This generates an all-round atmosphere of contentment in their staff.
- A situation of confrontation does not develop between different segments of the government because of a non-discriminatory treatment.
- In IB, it is easier to understand the budgetary policies, provisions and their implementation.

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Argument against Incremental Budgeting

The arguments against incremental budgeting are:

- It feeds a tendency to rank different units of the government on the basis of the size of their budgetary allocations instead of their relative usefulness and performance.
- The budgetary allocation for each 'unit' is based upon the allocation for it in the 'outgoing' budget. In case a unit fails to spend the funds allocated for it, its allocation for the incoming budget is liable to be reduced. This feeds an unhealthy tendency of spending the entire allocated funds even when there is no need to do so.
- It is highly probable that the current allocations for some 'units' are either overestimates or underestimates. IB tends to preserve this deficiency.
- IB lowers the productivity of public expenditure.
- IB discourages introduction of creative ideas, policies, techniques and procedures.
- IB does not encourage an evaluation of existing fiscal policies. Even outdated policies continue to be in operation. Priorities, including those extended to vested interests, are not revised in tune with emerging thinking and requirements. Consequently, fiscal policies develop several incompatibilities which get deeper over time.
- Rapid dynamism is a characteristic feature of a modern economy and is a high complex phenomenon. A good public budget should aim at:
  - o Reflecting this dynamism
  - o Helping it to develop into a well-structured process
  - o Contributing towards its optimum regulation

  However, incremental budgeting is not designed to perform this role.
- IB does not encourage an evaluation of existing fiscal policies or a search for the means of improving them.

6.2.3 Incremental Budgeting Versus Zero-Based Budgeting

It is useful to compare these two techniques of budget formulation because they are diametrically opposite to each other. In IB, the basic approach is to retain all the items of the existing (outgoing) budget. In contrast, in ZZB inclusion of each item and its size are subjected to cost–benefit analysis. Following are some points of differences between the two forms of budgeting.

- A Zero-Based Budget is formulated on the assumption that no government ministry/ department, commission, institution, programme or scheme is to be financed by the public budget without passing the test of a cost–benefit analysis and other selected criteria. This justification has to be there for each expenditure item and has to be repeated for each successive budget. That way, ZBB does not ensure a continued inclusion of any item in the public budgets. It is always possible that an item, having been included in several budgets, may be deleted in some subsequent budget. In contrast, in IB, there is no need to re-establish the justification for any existing item for its continued inclusion in subsequent budgets.
- ZBB allows restructuring of the public budget in accordance with multi-dimensional dynamism of a country. In contrast, IB lacks this feature and becomes an effective barrier against this dynamism.

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- The theoretical foundation of ZBB is a solid and equitable one. Its preparation requires the use of analytical and technical skills, which need not be possessed in ample measure by every government. In contrast, in IB, very limited skill or expertise is required, and consequently it is easier to formulate it.
- In IB, hardly any attention is paid to the availability of resources for the proposed expenditure items. This often compels the government to raise additional resources by taking irrational and unsound decisions relating to the policies covering taxation, non-tax resources and budgetary deficits. In contrast, ZBB enables the government to modify the expenditure items of the budget not only in a rational and equitable manner but also in conformity with resource availability, thereby avoiding several undesirable policies on the receipts side of the budget.
- Effects (performance standard) of alternative budgetary policies and activities can be accorded due weight in ZBB. In IB, this aspect of budgetary formulation has no place.
- In ZBB, alternatives of each item are considered, weighed and decided upon, thereby adding to the productivity of budgetary resources. In contrast, little or no weight is assigned to the productivity (also termed 'outcome' or 'performance') aspect of expenditure items.
- Size of an incremental budget keeps increasing even in the absence of an acceptable set of reasons. In ZBB, this is not the case.
- In IB, if the provision for an expenditure item happens to be an 'over-estimate' or an 'under-estimate', the anomaly tends to persist budget after budget.
- Though it is claimed that ZBB does not feed or protect vested interests, this is not necessarily so for several reasons.
  - o In ZBB, each 'government unit' is assigned the responsibility of justifying its own existence, size and budgetary allocations. It is hardly unlikely that a unit will vote itself out (or vote for its own downsizing) particularly when the employees working in it are likely to be adversely affected by this recommendation.
  - o Political pressures are often exerted for inclusion/exclusion (or revision of the size) of some units, schemes and projects which implies the presence of vested interested. There is often an intense competition between rival interests frequently leading to controversies. Though vested interests have a significant role in the formulation of IB as well, the probability of controversies in it is very low.
- Preparation of ZBB is more time-consuming and resource-expensive, more so when the public budget has to be prepared every year.
- Critics assert that in ZBB (because each item is reconsidered in each budget) a strong tendency develops to give priority to short-term considerations in preference to the long-term ones.
- This in turn militates against long-term socio-economic objectives of the country. A major limitation of ZBB is the problem of quantification of costs and benefits of a budgetary item, particularly because of their non-monetary components and spill-over effects. In particular, it is difficult to correlate expenditure on activities like research and development with their expected yields.

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Status in India

A search for the features of ZBB and IB in the public budgets in India reveals the following facts.

Public Expenditure

- Public budget at all government-tiers is essentially formulated along the lines of IB. It means that from one budget to the next, very few new items are added or deleted.
- In each budget, the 'demands' are incorporated on the basis of existing allocation adjusted for expected increase in prices (say, at the rate of 5 per cent p.a.) and some other identified factors.
- In some items, an increase in resource need is estimated in the context of accounting practices. For example, a distinction is made between Plan expenditure and non-Plan expenditure even though it has hardly any credible theoretical justification. Plan expenditure represents those expenses that are incurred before a project is completed or a scheme becomes fully operational. The government is interested, primarily for non-economic reasons, to show an increase in Plan expenditure even if it is at the cost of reducing non-Plan (or maintenance) expenditure. As a result, it tends to give preference to new projects/schemes over the maintenance of the existing ones, thereby reducing the effective productivity of public expenditure.

Revenue Receipts

In the field of budgetary receipts, characteristics of incremental budgeting reveal a wide range of inter-governmental differences.

- The Centre is known for introducing widespread changes in its tax structure with almost every budget. Imposition of fresh taxes, occasional removal of an existing tax, bringing additional goods/services under taxation, and redefining the legal bases of some taxes are some of the leading features of the Central government budgets. This, in turn, necessitates a further revision of the tax system so as to get rid of its negative effects. Consequently, in the face of so-called simplification measures, the tax structure keeps becoming even more complex over time.
- Compared with the States and local bodies, the Centre has a wider scope for introducing changes in the scale and composition of both its revenue and capital receipts.
- Over the last few years, it has become easier for the Centre to restructure its tax system. For example, the Centre has got a wide new field of taxation in the form of tax on services. Similarly, with the 80th Constitutional Amendment, its options in formulating its taxation policies have increased.
- Compared with the Centre, the revenue resources of the States are highly narrow and inflexible. They face greater constitutional and political obstacles in restructuring their tax system and revising budgetary policies. Consequently, their budgets are more IB-oriented.

ZBB is yet to gain popularity with governments of both developed and developing countries. Position in India is no different. Right from mid-1980s, authorities have occasionally expressed their intention to introduce ZBB, particularly in view of the glaring low productivity of public expenditure. But in effect, even the concept of ZBB is hardly known in the government circles.

Check Your Progress

1. What is a public budget?
2. What is the thrust of zero-based budgeting?
3. Define incremental budgeting.
4. State one major limitation of zero-based budgeting.

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6.3 DIFFERENT MEASURES AND TYPES OF DEFICITS IN BUDGET

It is quite easy to say that a budgetary deficit is simply the excess of public expenditure over public revenue. However, in practice, the concept admits of several variations and yields widely divergent measures of budgetary deficit. There is also a good deal of confusion due to the fact that there is no standard correspondence between a selected measure and the name assigned to it. A given measure of deficit may be referred to by alternative names and similarly a given term may be used to represent alternative measures of budgetary deficit. The existence of a large number of measures is explained by the fact that each measure has an analytical and policy relevance, and there is no single measure which may be universally preferred to all the others for all times to come. There is no single 'correct' measure to opt for. As the World Development Report (1989) of the World Bank says, the choice of the 'correct' measure depends upon the purpose of analysis.

In this section we shall elaborate the terminology and the corresponding measures of deficit as used by the Government of India (GOI) as also those concepts of budgetary deficit which are not in use in India. This is supplemented by the corresponding nomenclature as used in economic literature, and international institutions, etc.

Receipts and Disbursements of GOI

Before we take up alternative measures of deficit spending and illustrate them, it would be useful to present a break-up of the receipts and disbursements of GOI into relevant categories and sub-categories in an appropriate and usable form (See Table 6.1).

I (a). This item represents Centre's share out of the tax revenue collected by it. It is therefore gross tax collection *less* states' share *less* Assignments of UT taxes to Local Bodies.

I (b). (i) This item represents interest received on loans extended by the Centre to various parties like state Governments, Railways, P & T, Government employees, Foreign Governments, etc.

I (b). (ii) This item includes dividends and profits, receipts in the process of performing various government duties and functions and exercising of sovereign rights, non-tax revenue of UTs without Legislature, and income from fiscal services. The last component (fiscal services) represents profit on creation of Government currency, that is, the excess of the face value of Government currency produced during the year over its cost of production.

I (b).(iii) This item is self-explanatory. It includes grants from abroad also.

II(a).This item represents repayment of loans to the Centre by its debtors. It, however, does not include recoveries of:

(i) Ways and Means Advances to states

(ii) Loans for Agricultural Inputs

(iii) Loans to Government servants etc.

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Correspondingly, therefore, all estimates of deficits (except that on Revenue Account) are affected by this omission.

II(b) and II(c): These components represent all varieties of borrowing by GOI except those through the sale of 91-day *ad hoc* treasury bills (borrowings through treasury bills of other kinds are included in item II(b)). These borrowings are *net* amounts, that is, gross borrowings minus repayments by the GOI on its outstanding loans. For this reason, the portion 'Securities Issued to International Financial Institutions' (these securities are deposited with RBI by the Centre) gets totally omitted because it represents simultaneous capital receipts and disbursements of equivalent amounts.

II(d): This represents sales proceeds of some assets sold by the Centre. More specifically, this came into existence on account of disinvestment of some equity share holdings in PSUs in the wake of new policy of liberalization. The reader should note the claim of the Centre that the sale of these assets reduces its budgetary deficit by an equivalent amount. Many analysts and the World Bank do not agree with this view. However, the viewpoint of the Government can be defended by pointing out that additions to Government assets through its capital expenditure, and through extending loans to other parties, are not deducted from its total expenditure in estimating Fiscal Deficit or Primary Deficit. So why should the *sale* of assets be treated differently? In other words, payments on capital account are taken to add to a deficit while the acquisition of assets is not taken to reduce it. Extending this reasoning to sale of assets, it follows that their sale proceeds should mean a reduction in a deficit, while the corresponding loss of assets should be ignored.

The remaining items in Table 6.1 are self-explanatory. It only needs reiteration that repayments of loans by GOI do not appear in 'Expenditure on Capital Account' because the 'Borrowings' in capital receipts have already been reduced to 'net' of repayment figures. However, it should be noted that 'Recoveries' of loans [Item II(a)] from the debtors of GOI are included in item II (Capital Receipts). For this reason, item V(a) [that is, 'Loans and Advances' in Expenditure on Capital Account] includes *gross* (and *not net*) amounts of loans extended by GOI to other parties (such as Foreign Governments, State Governments, and Government employees, etc.).

6.3.1 Concepts of Deficit

The following break-up of GOI budget enables us to define (and therefore estimate) a few concepts of deficit, namely:

- Deficit on Revenue Account (RD)
- Deficit on Capital Account (CD)
- Budgetary Deficit (BD)
- Fiscal Deficit (or Gross Fiscal Deficit) (FD) or (GFD)
- Net Fiscal Deficit (NFD)
- Primary Deficit (PD) or (GPD)
- Net Primary Deficit (NPD)

1. Deficit on Revenue Account (RD)

The excess of expenditure on revenue account over receipts on revenue account measures Revenue Deficit. From Table 6.1, it would be:

Item IV – Item I

Table 6.1 Alternative Measures of Deficit

(₹ in crores)

1	2006–07 2	2007–08 3	2008–09 4	2009–10 5	2010–11 6	2011–12 7
I. Revenue Receipts	4,34,387	5,41,864	5,40,259	5,72,811	7,83,833	7,89,892
(a) Tax Revenue (net)	3,51,182	4,39,547	4,43,319	4,56,536	5,63,685	6,64,457
(b) Non-tax Revenue	83,205	1,02,317	96,940	1,16,275	2,20,149	1,25,435
(i) Interest	22,524	21,060	20,717	21,756	19,728	19,578
(ii) Non-interest	58,151	78,534	73,429	91,378	1,97,665	1,03,684
(iii) Grants	2,530	2,723	2,794	3,141	2,756	2,173
II. Capital Receipts	1,44,482	1,97,978	2,99,863	4,53,063	4,47,743	4,47,836
(a) Recoveries	5,893	5,100	6,139	8,613	9,001	15,920
(b) Borrowings, other than 91-day *ad hoc* Tr. Bills	1,24,096	1,33,678	2,51,384	4,38,774	4,05,459	3,90,782
(c) Other Capital Receipts (net)	13,959	20,405	41,774	–18,905	10,539	1,134
(d) Sale of Public Assets	534	38,795	566	24,581	22,744	40,000
III. Total Receipts	5,78,869	7,39,842	8,39,935	10,25,883	12,30,576	12,37,728
IV. Expenditure on Revenue A/c	5,14,609	5,94,433	7,93,798	9,11,809	10,53,678	10,97,162
(a) Interest Payments	1,50,272	1,71,030	1,92,204	2,13,093	2,40,757	2,67,986
(b) Non-interest Expenditure	3,64,337	4,23,403	6,01,594	6,98,716	8,12,921	8,29,176
V. Expenditure on Capital A/c	68,778	1,18,238	90,158	1,12,678	1,62,898	1,60,567
(a) Loans and Advances	8,542	–1,220	12,663	16,116	42,515	28,640
(b) Capital Outlay	60,236	1,19,458	77,495	96,562	1,20,383	1,31,927
VI. Total Expenditure	5,83,387	7,12,671	8,83,956	10,24,487	12,16,576	12,57,729
VII. Borrowings through 91-day *Ad hoc* T. Bills and Drawing Down of Cash Balances	4,517	–27,171	43,834	–1,386	–15,000	20,000
1. Revenue Deficit (IV – I)	80,222	52,569	2,53,539	3,38,998	2,69,844	3,07,270
2. Deficit on Capital A/c (V – II)	(–)75,704	(–)79,740	(–)2,09,705	(–)3,40,385	(–)2,84,845	(–)2,87,269
3. Budgetary Deficit (VI – III) = VII = (row 1 + row 2)	4,517	(–)27,171	43,834	(–)1,386	–15,000	20,000
4. Fiscal Deficit [VI – {I + II(a) + II(d)}] = II(b) + II(c) + VII	1,42,572	1,26,912	3,36,992	4,18,483	4,00,998	4,11,916
5. Net Fiscal Deficit [FD – V(a)]	1,34,030	1,28,132	3,24,329	4,02,367	3,58,483	3,83,276
6. Primary Deficit						
(a) FD – IV(a) + I(b)(i)	14,824	23,058	1,65,505	2,27,146	1,79,969	1,63,508
(b) FD – IV(a)	–7,700	–44,118	1,44,788	2,05,390	1,60,241	1,43,930
7. Net Primary Deficit [PD – V(a)]						
(a) FD – IV(a) + I(b)(i) – V(a)	6,282	21,838	1,52,842	2,11,030	1,37,454	1,34,868
(b) FD – IV(a) – V(a)	–1,62,420	–42,898	1,32,125	1,89,274	1,17,726	1,15,290

Receipts on revenue account include both tax and non-tax revenue as also grants. Tax revenue is net of states' share as also net of 'Assignment of UT Taxes to Local Bodies'. Note that receipts of UT taxes normally exceed the assignments, and the excess forms part of the Receipts on Revenue Account. Non-tax revenue includes interest receipts, dividends and profits, and non-tax revenue receipts of UTs. Grants include grants from abroad also.

Expenditure on revenue account includes both Plan and Non-Plan components. Thus, the Plan component includes Central Plan and Central Assistance for state and UT Plans. Non-Plan expenditure includes interest payments, defence expenditure on revenue account, subsidies, debt relief to farmers, postal deficit, police, pensions, other general services, social services, economic services, non-Plan revenue grants to States and UTs, expenditure of UTs without legislature, and grants to foreign governments.

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2. Deficit on Capital Account (CD)

The excess of capital disbursements over capital receipts measures the Capital Deficit. Plan capital disbursements include those on Central Plan and Assistance for state and UT plans. Non-Plan capital disbursements include defence expenditure on capital account; other non-Plan capital outlay; loans to public enterprises, states and UT Governments, foreign governments and others; and non-Plan capital expenditure of UTs without legislature. The item of capital receipts has already been discussed above. It would be recalled that this item includes 'recoveries' of loans extended by the Centre itself, but only 'net' receipts of loans raised by it. From Table 6.1, we have:

CD = Item V – Item II

Note that receipts on account of sale of 91-day *ad hoc* treasury bills and drawing down of cash balances do **not** form a part of capital receipts. However, net receipts on account of sale of remaining varieties of treasury bills and sales proceeds of Government assets are included in capital receipts.

3. Budgetary Deficit (BD)

It is the sum total of RD and CD. From Table 6.1,

BD = (IV – I) + (V – II) = (IV + V) – (I + II) = VI – III

Note that BD is also exactly equal to item VII, that is, it is that portion of Government expenditure which is financed through the sale of 91-day *ad hoc* treasury bills and drawing down of cash balances.

It should be noted that in economic literature, and to a certain extent by international institutions, the term Budgetary Deficit is used to represent 'Fiscal Deficit' (FD) discussed below. FD is a wider concept while BD, as used in Indian official documents, is a narrower concept.

What is the justification for having a definition of BD which is at variance with its internationally accepted version? Officially, this justification is derived from the argument that budgetary deficit should not measure just a transfer of purchasing power from the private to the public sector. Instead, it should measure a net addition in 'high-powered money' (H) which, in turn, causes an increase in aggregate purchasing power in the hands of the economy. It should, therefore, reflect the expected effect of government expenditure in the form of an aggregate demand and inflationary pressure in the country. However, the measure of BD, as adopted in India, does not meet this criterion. It is because borrowings taken from RBI (except through the sale of 91-day *ad hoc* treasury bills) are excluded from it even when, in effect, such borrowings also add to the supply of money and credit in the economy.

It may be noted in passing that high-powered money is currency in the hands of the public and cash balances of banks including their balances with the RBI.

4. Fiscal Deficit (FD)

Fiscal deficit may also be called Gross Fiscal Deficit (GFD). It measures that portion of Government expenditure which is financed by borrowings (that is, *all borrowings including those through 91-day ad hoc treasury bills*) and drawing down of cash balances. It should be noted that in India, borrowings are net amounts (that is, gross borrowings *less* repayments). Similarly, loans extended by GOI are included on the

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expenditure side of capital account while 'recoveries' are included on the receipts side. Therefore, the amount of loans and advances by GOI is also reduced to a net figure. From Table 6.1,

FD = [VI – {I + II(a) + II(d)}]
= II(b) + II(c) + VII

In other words, FD is (Total Expenditure *less* [Revenue Receipts plus Recoveries plus Sale of Public Assets]). It is also equal to the sum of three items, namely, (i) borrowings, other than through 91-day *ad hoc* treasury bills, (ii) sale of public assets, and (iii) BD.

It is often stated that FD measures an addition to the liabilities of GOI (whether backed by acquisition of some assets or not). This we should remember, is true only if the item 'drawing down of cash balances' is zero. Mostly, it is a small item and, therefore, by and large, the above-mentioned statement may be accepted in practical decision-making.

5. Net Fiscal Deficit (NFD)

This measure of deficit is obtained when FD is reduced by 'Loans and Advances' component [V(a) of 'Expenditure on Capital Account']. In other words, this measure considers the fact that some payments by the Government are not part of 'spending away', but for acquisition of assets. However, this reasoning is not carried to its logical conclusion. While assets acquired through giving loans to others are accounted for, those acquired through 'capital outlay' [a part of item V(b)] are ignored.

6. Primary Deficit (PD)

This measure is also referred to as Gross Primary Deficit (GPD). Measures of deficit described above (except CD) include payments and receipts of interest. These transactions, however, reflect a consequence of past actions of the government, namely, loans taken and given in years prior to the one under consideration. Exclusion of interest transactions, therefore, enables us to see the way the government is *currently* conducting its financial affairs. Accordingly, PD is defined as

FD *less* **net** interest payments, (that is, *less* interest payments *plus* interest receipts), so that

PD = FD – [IV(a) – I(b)(i)]
= FD – IV(a) + I(b)(i) (a)

However, in GOI budgetary documents, interest receipts [item I(b)(i)] are ignored so as to get a *smaller* measure of PD.

That is,

PD = FD – IV(a) (b)

7. Net Primary Deficit (NPD)

This measure of deficit is obtained by subtracting 'Loans and Advances' [Item V(a)] from Net Fiscal Deficit. It is also equal to FD *less* interest payments *plus* interest receipts *less* loans and advances. Thus,

NPD = PD – V(a)

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Note that corresponding to two measures of PD, we get two measures of NPD, so that

$$NPD = FD - IV(a) + I(b)(i) - V(a) \quad (a)$$

and

$$NPD = FD - IV(a) - V(a) \quad (b)$$

This brings us to those concepts of deficit which cannot be estimated from the information given in Table 6.1 and has to be made available by the government directly.

8. Monetised Deficit (MD)

Monetised deficit is defined as an increase in net RBI credit to Central government. The rationale for this measure of deficit flows from the inflationary impact which a budgetary deficit exerts on the economy. Our Budgetary Deficit (BD) discussed above is not able to meet this test. The Chakravarty Committee recommended that in addition to existing measure of BD (namely, borrowings through 91-day *ad hoc* treasury bills and drawing down of cash balances), it should include **all** other borrowings from the RBI by the government. Since borrowings from RBI directly add to high-powered money, therefore, this measure is termed Monetised Deficit. It is obvious that **MD is only a part of FD**. Also it should be noted that even MD is not a perfect measure of the inflationary impact of the budget. Loans from banking sector also add to the liquidity and inflationary forces in the economy.

9. Public Sector Borrowing Requirements (PSBR)

It may be termed consolidated Public Sector Deficit, and represents net claims on (that is *net use of*) the resources of the economy by the entire public sector. It is the most comprehensive measure of deficit and covers all government entities.

In brief, PSBR = (Total Expenditure – Revenue Receipts) for all government entities. It also equals their (New Borrowings *less* Repayments less Drawing Down of Cash Balances).

Note that, here, the term 'expenditure' includes wages of public employees, expenditure on goods and services, fixed capital formation, interest on debt, transfer payments and subsidies. However, it **excludes** amortization payments on government debt and accumulation of financial assets. Similarly, revenue includes taxes, fees, fines, rates, user charges, interest on public assets, transfers, operating surplus of public enterprises and sale of public assets. It, however, excludes drawing down of cash balances.

This measure raises the problem as to which economic units should be counted as part of the government sector. Also it is not a measure of the resource cost of the economy which includes the repercussive effects including that of inflation.

10. Structural Deficit (SD)

When the borrowing requirements of the public sector (PSBR) is adjusted (that is, reduced) for occasional or temporary measures for reducing deficit and raising resources, it is termed Structural Deficit (SD). It is a measure of deficit which is expected to persist unless *long term corrective measures* are adopted by the authorities. For example, if the government raises resources by 'sale of government assets' and through 'amnesty schemes', PSBR should be adjusted for (reduced by) these amounts to arrive at SD.

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11. Operational Deficit (OD)

PSBR adjusted (that is, reduced) for inflationary price rise gives us Operational Deficit (OD). Obviously, for arriving at OD, choice of an appropriate price index is of great relevance. However, it is very difficult to select an ideal price index. Another problem arises from the fact that while indirect taxes add to the revenue receipts of the government, they are also inflationary in nature. Similarly, many PSUs included in the estimation of PSBR may resort to raising of user charges. This act simultaneously adds to both the revenue of the government sector and the inflationary forces, and thereby clouds the true significance of this measure of deficit.

6.3.2 Tolerable Limits of Deficit Spending

Tolerable limit (or 'crucial' limit) of deficit spending is indicative of that stage beyond which its ill-effects overshadow its benefits. This limit is not an absolute figure but a level related to economic conditions of the country. This level is difficult to estimate, but it is easy to see when the deficit is sufficiently within 'safe' limits or clearly exceeding the 'tolerable' ones. Further, the 'safe' limit depends upon the way in which a deficit is *financed.* For example, over-reliance on domestic private borrowings is likely to push up interest rates and 'crowd out' private investment. Similarly, excessive borrowing from abroad is bound to create problems of debt servicing. These problems get aggravated if the borrowings have a short maturity and/or do not lead to additional export earnings. Debt servicing can become an important factor in accelerating the depletion of foreign exchange reserves. In the same way, an economy can absorb only a limited amount of additional money without feeding inflation, and an excessive reliance on this source of financing a deficit becomes inflationary. In this context, the concept of SEIGNORAGE is also a noteworthy one. Seignorage is the ability of the government to claim resources in return for issuing currency. It is an implicit 'inflation tax' which the holders of financial assets (including conventional money balances) pay. The real purchasing power of money balances declines. And the same thing happens with real rate of interest. The burden of outstanding government debt declines and an increase in nominal interest rate seldom compensates for it. Another ill-effect of inflation caused by deficit spending is its impact on income distribution which shifts in favour of non-fixed residuals like profits.

Current thinking supports the thesis that inflation is mainly caused by deficit spending, and can be cured only through budgetary reforms. Also deficit spending is a self-feeding process. With price rise, government expenditure rises faster than its revenue and the government is forced to resort to bigger deficits.

These days, it is widely believed that a mild inflation is helpful in maintaining a high level of economic activities and employment and that moderate deficits help in sustaining the mild inflation with its beneficial spill-over effects. In contrast, it is not possible to sustain huge deficits without severely damaging the economy.

Some countries (including India through its Fiscal Responsibility and Budget Management [FRBM] ACT) have adopted laws to check deficit spending. Such a course, however, often fails. Ways are found to overcome the legal hurdles when the government is not able to contain its expenditure. The net outcome of such self-imposed restraints always depends upon the political will of the government and its administrative strength. As regards India, it was expected that with the passage of the Fiscal Responsibility and Budget Management Act and rules and targets framed under it, GOI would be able to improve its fiscal health on a sustainable basis. In the meantime, revenue receipts of the

Check Your Progress

5. What measures revenue deficit?
6. What does fiscal deficit measure?
7. Define structural deficit.
8. What is the tolerable limit of deficit spending?

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Centre have also recorded a creditable increase on various counts including the expanded coverage of service tax and economic growth. It is expected to receive a further boost with the introduction of a comprehensive GST. However, the Centre has not been able to contain the growth of its revenue expenditure, and the problem of fiscal deficit is still with us.

6.4 PROBLEMS OF BUDGET DEFICIT AND MEASURES TO REDUCE DEFICITS

Political leaders have so frequently cried wolf over budgetary spending that voters are sceptical about talk of budgetary crises. This is unfortunate, since deficits should arouse genuine concern, particularly as their size in some industrial countries is daunting. Yet, the absolute size of deficits is not their most alarming aspect. In fact, most countries now run much smaller deficits (as a ratio of GDP) than they did during wartime. Rather, the persistence of budgetary shortfalls during a long period of peace, when governments traditionally pay off debts and save for the future, should set the alarm bells ringing. Furthermore, projected increases in the cost of government programmes, as population's age and economic growth lags, give cause for further concern.

Government budget deficits (the excess of spending over revenue) in industrial countries have been growing as a per cent of GDP for the past 20 years. Large deficits emerged after the oil crisis in the mid-1970s and widened dramatically after 1980, largely the result of government overspending rather than meagre tax receipts. Government expenditures in industrial countries rose from 28 per cent of GDP in 1960 to 50 per cent in 1994. These deficits have sharply increased the public debt (the accumulated burden of yearly budget deficits), which jumped to 70 per cent of GDP in 1995 from 40 per cent in 1980, weakening government finances and draining resources from the economy. Aging populations and sluggish economic growth add urgency to this worrisome trend. Governments now have little choice but to restructure their spending programmes. Before understanding the measures to reduce different deficits, we should first understand the problems of budget deficit in India.

6.4.1 Problems of Budget Deficit in India

Over the past 15 years, India's general government deficits have exceeded 5 per cent in every year except in 2007–08. After a successful consolidation between 2003 and 2008 under the Fiscal Responsibility and Budget Management Act, the deficit again widened during the global financial crisis. The Thirteenth Finance Commission laid out a consolidation plan in 2010 which aimed at reducing the deficit to 5½ per cent of GDP in five years. However, achieving this target has proved elusive. In 2012, new plans for consolidation were announced. These plans focused on lowering expenditure and on controlling the cost of India's fuel and fertilizer subsidies, but achieving long-run fiscal consolidation will be challenging.

The initial years of India's planned development strategy were characterized by a conservative fiscal policy whereby deficits were kept under control. The tax system was geared to transfer resources from the private sector to fund the large public sector driven industrialization process and also cover social welfare schemes. However, growth was anaemic and the system was prone to inefficiencies. In the 1980s, some attempts were made to reform particular sectors. But the public debt increased, as did the fiscal deficit. India's balance of payments crisis of 1991 led to economic liberalization. The

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reform of the tax system commenced. The fiscal deficit was brought under control. When the deficit and debt situation again threatened to go out of control in the early 2000s, fiscal discipline legalisations were instituted. The deficit was brought under control and by 2007-08 a benign macro-fiscal situation with high growth and moderate inflation prevailed. During the global financial crisis fiscal policy responded with counter-cyclical measures including tax cuts and increases in expenditures. The post-crisis recovery of the Indian economy is witnessing a correction of the fiscal policy path towards a regime of prudence. In the future, the focus would probably be on bringing in new tax reforms and better targeting of social expenditures.

After a brief impact of the global economic slowdown in 2008-09, Indian economy recovered quickly recording 8.4 per cent GDP growth in 2009-10 and 9.3 per cent GDP growth in 2010-11. The recovery, however, was short lived as growth rate slowed down substantially in the following year, 2011-12 to 6.2 per cent. Fiscal expansionary response which continued since 2008-09 to arrest the growth decline resulted in high fiscal deficits. The continued Euro Zone crisis and gloomy economic trends in major economies contributed adversely, impacting India's exports negatively. This along with the elevated levels of crude prices and high levels of gold imports led to the widening of trade gap and Current Account Deficit. Macroeconomic analysis of India during the years 2010-11 and 2011-12, therefore, showed a trend of rising current account deficit, sticky inflation, falling savings rates, falling investments and even consumption. The uncertainty in global economy along with the monetary policy tightening measures led to a perceptible negative impact on economic growth. As a result of these factors, the growth is estimated to come down to a decade low of 5 per cent of GDP, as per Central Statistics Office's (CSO) advance estimates. Last time sub 6 per cent growth was seen in 2002-03, when the growth in GDP was registered at 4 per cent.

The widening trade gap, falling investment and difficult economic situation, both domestically and abroad, have added to the negative outlook on the Indian economy. The rigid inflationary conditions and consequent tightening measures on monetary policy along with negative sentiment on investments and savings have had a deep impact on industrial growth. Discouraging trends in economic growth called for immediate corrective measures and appropriate policy response. Public debate centred around the fact that high fiscal deficit tends to heighten inflation, reduces room for monetary policy actions, and dampens private investment. The sustained high levels of fiscal deficit though required as a countercyclical measure to spur growth, has also caused diverse forms of macroeconomic imbalances, which could not be overlooked and immediate corrective measures were called for to contain the likely growth in fiscal deficit during 2012-13 and onwards.

Mid-year course correction with suitable policy response became imminent in the emerging scenario. Fiscal consolidation by way of regulating deficits and cutting expenditure to create positive business environment was immediate need of the hour. Government accordingly appointed Kelkar Committee in August 2012 to suggest 'Roadmap for Fiscal Consolidation' within one month's time period. Kelkar Committee held series of meetings with Ministry of Finance, concerned line ministries and Planning Commission to finalize its report within the given timeframe. Deliberating on various issues facing the economy, Kelkar committee suggested a slew of measures to contain the rising trend of fiscal deficit. The committee observed that deficit financing through domestic sources tends to be inflationary. At the same time, twin deficits hypothesis implies that, given a certain level of private savings, an increase in fiscal deficit will have to be balanced by either a reduction in private investment or an increase in the current account deficit. The Indian economy has been witnessing both.

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The fiscal stress in the 'do-nothing' scenario as per Kelkar Committee report was fast approaching unsustainable levels. On revenue side, slower pace of economic growth implied shortfall in both direct taxes—both corporation and income tax—due to lower profits and incomes. Similarly, slower pace of economic growth meant shortfall on custom duty, being directly linked to imports and excise duty due to slower pace growth in production. Another matter of concern related to expected shortfall in Non-tax revenue by at least ₹30,000 crore on account of lower realization from 2G spectrum following court litigation and poor response to auctions. It was estimated by the Committee that the revenue collections in the current year, Tax and Non-tax put together will take a hit by at least ₹60,000 crore from the budgeted targets in BE 2012-13. Similarly, international crude prices remained at high levels in the range of US $ 110 to 115 per barrel peaking to above US $ 120 per barrel for some time. As India imports bulk of its crude requirements and the pricing of petroleum products by oil marketing companies for the purpose of calculating under-recoveries are benchmarked to the international prices, there was a significant increase in the estimated under-recovery of Oil Marketing Companies (OMCs). In tandem with high crude price, prices of most of the petroleum products in the international market went up sharply, and fertilizer bill ballooned due to rising Urea prices. Therefore, it was estimated that the subsidy expenditure would rise by about ₹ 70,000 crore. Accordingly, it was estimated that unless immediate corrective measures are taken the deficit will be well above 6.1 per cent of GDP.

The net effect would be 'crowding-out' of private sector financing for investment due to large gross borrowing requirement. In an extremely fragile world market financing of this magnitude would be creating huge risks for macroeconomic and external stability. Against this scenario and aided by Kelkar Committee recommendations, government undertook the task of meeting the challenge. As a first credible step towards fiscal consolidation, the fiscal deficit target was revised from 5.1 per cent to 5.3 per cent for the current year. As per the roadmap of fiscal consolidation laid down by the government, the fiscal deficit in 2013-14 has been projected at 4.8 per cent, to be reduced by 0.6 per cent every year to achieve 3.0 per cent target by the end of the plan period, viz. 2016-17. In order to achieve the target for Disinvestment, committee of secretaries was constituted in the Ministry of Finance. Similarly, efforts were made to mop up revenues both tax and non-tax to contain the fiscal deficit within the projected targets. However, shortfall in the customs duty on indirect side and non-realization of targeted revenues from Spectrum sale on the Non-tax side had to be factored in.

The case of India illustrates the challenges of consolidating the fiscal position when growth is relatively strong. Fiscal vulnerabilities are masked by high growth. In the past years, the debt-to-GDP ratio has fallen as nominal output growth exceeded the pace of debt accumulation. However, several papers show that it is less costly to embark on fiscal adjustment in a supportive macroeconomic environment. Fiscal multipliers tend to be larger during downturns and fiscal consolidation would involve disproportionately higher costs (see Corsetti et al., 2010; Baum et al., 2012; Baunsgaard et al., 2013; and Blanchard and Leigh, 2013). Therefore, consolidation during good times can help, as can engaging in simultaneous structural reforms. Delaying fiscal correction may lead to an increase of risk premiums as market sentiment deteriorates. High borrowing costs can crowd out important spending and derail growth. In the near term, there is an uncertainty about the trade-off between fiscal consolidation and growth. Therefore, a crucial question is how to achieve consolidation while minimizing the negative growth effects of raising revenues or controlling spending.

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6.4.2 Deficit Reduction

Most industrial nations recognize the need to reduce deficits, but as yet few have addressed the problem comprehensively. Most have engaged in piecemeal policymaking to mitigate the most pressing deficit problems. Although these measures do provide some relief, more drastic action is needed. The major policy options available to the industrial countries are described below. Here, we would also be providing examples from the different countries of the world.

1. Economic Growth

Governments have many reasons to wish for higher economic growth, not least because growth eases government finances through higher revenues and lower transfer payments. Although governments cannot fully control their economies, they can pursue policies to enhance growth prospects and to reduce the vagaries of the economic cycle. Usually these policies reduce such rigidities as excessive regulation and complicated tax structures and improve the environment for business investment and trade. In these ways, governments ensure that private business and commerce will respond vigorously to upturns in the economy and that government coffers will reap the reward.

Two countries particularly hard hit by recession are undertaking a growth approach. Japan's fiscal position eroded badly during 1992-95, but Japanese officials have reason to expect that the present recovery will alleviate budgetary pressure and compensate partly for those bad years. In addition, they hope that economic performance will shore up some continuing weakness in the financial markets arising from bad loans. Canada, too, is looking toward an economic recovery to help with deficit reduction. Other countries have also been working to improve the competitiveness of their economies so that they may maximize economic upswings.

Increase in tax in India to GDP ratio coupled with lower than budgeted expenditure has demonstrated government's ability to rein in the escalating fiscal deficit. The step was much needed and removed substantial gloom in the market, as it provided some leg-room for easing of monetary policy measures by the RBI. Firm action to control public spending and easing of inflationary pressure led to downward revision of interest rates by the Reserve Bank in January, 2013. Easing of 25 basis points on the interest rates, first since April 2012, combined with lowering of Cash Reserve Ratio by another 25 bps provided the much needed fillip to the market sentiments. The mid-course correction undertaken during the year and proposed to be sustained during 2013-14 has been a much needed catalyst much needed for revival of the market confidence and economic growth.

The most important public expenditure management initiative taken by the Government relates to its reversal of policy from fiscal expansion to fiscal consolidation. The public expenditure management through fiscal consolidation required major initiatives to contain government spending without affecting developmental and welfare programmes. With economic growth rate slowing, it was imperative that government spending particularly for the vulnerable section of the society continues, to provide effective protection against inflation in a difficult year. Thus, the rationalization of expenditure had to be carried out judiciously rather than indiscriminately. A number of important initiatives have been taken towards fiscal consolidation largely with the aim of containing fiscal deficit, by taking appropriate measures particularly on the front of expenditure control, and optimization of revenue collections both on the tax and non-tax side.

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2. Spending Cuts

Most electorates find cutting spending more tolerable than increasing taxes. Spending cuts, while painful, can be strategically aimed at unpopular programmes (e.g., welfare in the United States) or be spread across diverse constituencies to impose minimal hardship on voters. Other cuts may have sufficient, if not enthusiastic, support to make them feasible, such as reducing unemployment insurance payments, the defence budget, and government bureaucracies, or contracting with private companies for services previously performed by the government.

The United States has undertaken several attempts at reducing government expenditures. The Gramm-Rudman-Hollings Act of 1985 forced across-the-board cuts at the federal level, but the government backed away from full implementation of this legislation because of economic contractions in the late 1980s and early 1990s. A 1993 attempt at deficit reduction, which included spending cuts that fortuitously coincided with an upturn in tax revenue, met with greater success. In Europe, because the Maastricht treaty requires budget stability among its members before monetary union can be reached, most European government budgets are now attempting some fiscal consolidation.

On the expenditure side, the Indian government took major decisions to contain government spending on subsidy. The choice was between the devil and the deep sea. Raising diesel and LPG prices to meet the widening gap would have been inflationary in the short run but not passing on the price escalation and thereby increasing fiscal deficit would have only enhanced the fiscal strains. As a result, government was forced to take corrective measures for increasing the price of diesel by 5 per litre, allowing oil marketing companies (OMCs) to raise diesel prices by small amounts regularly, and a cap on the number of subsidized LPG cylinders. The rationale was that the current level of fuel subsidy was unsustainable and a gradual increase in prices over extended period of time would ease the impact on inflation. This also meant that though the decision will ease pressure on subsidies in due course, in the immediate future government will have to meet the rising subsidy bill. It was estimated that on account of revenue shortfall and increased government spending, largely on subsidies, there will be need for curbing other expenditures to remain within the announced fiscal deficit target of 5.3 per cent in 2012-13.

Accordingly, government undertook major exercise of rationalizing both plan and non-plan spending to match the revenues. Therefore, with a view to rationalize expenditure and optimize available resources, measures for economy cut, reduction in plan and non-plan expenditure to reprioritize releases based on implementation schedule and actual requirements based on pace of expenditure were taken to contain public spending within the available resource limits and targeted levels of fiscal deficit. While, government took major steps towards containing its spending and mopping up resources in keeping with fiscal discipline, important steps were also taken to infuse confidence in the market for growth revival. Government took important administrative decisions including allowing FDI up to 49 per cent in Insurance sector, permitting FDI in multi-brand retailing, carrying out amendment in banking regulation laws to allow foreign banks, deferring General Anti-Avoidance Rule etc. Government's proactive stance in carrying forward reforms along with credible steps to limit spending and contain fiscal deficit has been instrumental in reviving the market sentiments and infusing fresh confidence in the Indian economy, the result of which will be seen to some extent in the next financial year.

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3. Tax Increases

Cutting expenditures has its limits; increasing taxes is another option. Although tax increases are politically and even economically risky, some countries will need to raise tax rates to cover the projected costs of social security and national health care in the twenty-first century. Tax design and the timing of an increase are complicated, and many redistributive issues need to be addressed during a policy shift.

Raising taxes is not impossible. Germany has recently done so successfully. To facilitate the absorption of the former German Democratic Republic, the German government imposed a solidarity tax of 7.5 per cent. This tax helped the country to contain its deficit, which had risen sharply after 1990 but then levelled off when the new tax revenues began to flow in. Other countries have raised taxes in limited ways, but none is seriously debating significant tax increases at this time.

In India, during the fiscal consolidation period, the tax GDP ratio improved significantly from 9.2 per cent in 2003-04 to 11.9 per cent in 2007-08. This has been achieved through rationalization of the tax structure (moder te levels and a few rates), widening of the tax base, and reduction in compliance costs through improvement in tax administration. The extensive adoption of information technology solutions and reengineering of business processes has also fostered a less intrusive tax system and encouraged voluntary compliance. These measures resulted in increased buoyancy in tax revenues till 2007-08 and helped in achieving fiscal consolidation through revenue measures alone. Due to the stimulus measures undertaken largely on the tax side during the global economic crisis in 2008-09 and 2009-10, as a measure to insulate Indian economy from the adverse impacts of global economic crisis and slowdown in domestic growth, the gross tax revenue as percentage of GDP declined sharply to 9.7 per cent in 2009-10.

Further, due to high international prices and as a measure to insulate consumers and to reduce under recoveries government had to further reduce taxes/duty on petroleum products in 2011-12. As a result, the gross tax receipts as percentage of GDP in 2011-12 declined to 9.9 per cent from 10.2 per cent in 2010-11. However, with partial roll back of stimulus measures in indirect taxes, it was estimated that tax receipt as percentage of GDP would improve to 10.7 per cent in 2012-13. With moderation of growth rate in 2012-13, the tax-GDP ratio has been revised to 10.4 per cent. Continuing on the path of fiscal consolidation with a view to narrow the gap in government spending and resources, the tax-GDP ratio has been targeted at 10.9 per cent in the BE 2013-14 with a growth rate of 19.1 per cent. This includes additional resource mobilization, while maintaining pro-growth stance.

In the medium term, the most significant step from the point of view of broadening the tax base and improving revenue efficiency through better compliance is the introduction of Goods and Services Tax (GST). As far as Central taxes viz. Central Excise duties and Service Tax are concerned, a fair amount of integration has already been achieved, especially through the cross-flow of credits across the two taxes. It would be possible to realize full integration of the taxation of goods and services only when the State VAT is also subsumed and a full-fledged GST is launched.

4. Pension Reform

Aging populations are placing increasing pressure on public pension systems. To diminish the cost of these systems, governments can shrink the pool of beneficiaries either by

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raising the retirement age or by reducing benefits. Most countries are modifying their social security systems in response to demographic projections.

In France, the government recently increased the years of public service needed to qualify for a full government pension and lengthened the salary period upon which those benefits are calculated. The UK government has chosen a slightly different task—introducing incentives that would move people out of public pension's schemes and into private ones—in an effort to reduce government obligations. Germany, Canada, Italy, Japan, and the United States are debating these and other measures.

5. Health Care Reform

The same demographics forcing changes in social security are pressing for health care reform as well, since the elderly need more medical care than the young. Furthermore, health care costs have been rising drastically. These two factors have governments looking for ways to bring down costs and to regulate the procedures doctors perform.

In France, the government has negotiated with health care providers in an effort to establish acceptable and affordable treatment of patients, while at the same time increasing patient co-payments for these services. In the United States, health care reform was prominent during the first two years of the Clinton Administration and although no legislation resulted from it, some incentives are being introduced to move Medicaid and Medicare patients into managed care.

6. Creditor Confidence

Some governments—notably Italy and Canada—now pay high interest charges on their government debt because of creditor uncertainty about fiscal policies. This hearkens back to the need for governments to control inflation, and these two governments have tried to improve creditor confidence by demonstrating spending restraint and low-inflation policies.

7. Legal Measures

The United States has attempted to contain deficit spending by such legal means as balanced-budget legislation and a much contested constitutional amendment to eliminate deficit spending. These initiatives are controversial since they limit legislative policy options, making it difficult to change spending priorities even when the need is compelling. Most analysts are concerned that legal restraints might introduce excessive rigidity in government fiscal policy.

Developing Countries

Budgetary issues in developing countries differ from those in industrial countries. Usually smaller and structurally different, developing economies may set other goals from those of industrial nations, focusing, for example, to a greater degree on building infrastructure, creating an industrial base, and encouraging new business formation. Their populations are younger and less skilled, and they have limited access to capital. Fiscal policy in developing countries faces unique challenges. Budgets are smaller, personal incomes are lower, and tax collection is often erratic. Much employment occurs outside the formal economy, making transactions difficult to tax. Financial markets in developing countries are often inefficient, making it hard for governments to finance their deficits.

In keeping with lower government revenues, most developing countries have lower public expenditures than industrial countries, with developing countries in Asia and the western hemisphere spending the least and those in Africa, the Middle East, and eastern Europe the most. Yet, the majority of developing countries run deficits, with the occasional exception of the middle-income countries—those with higher per capita incomes.

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Fortunately for their fiscal prospects, developing countries do not spend as much on social welfare programmes (pensions, health care, and unemployment insurance) as industrial countries do. Private saving often takes the place of government support in this regard. Younger populations put less spending pressure on governments, and in many countries extended family networks traditionally care for the elderly. Nevertheless, governments still need to adjust their budgets to the inevitable aging of their populations, although they have more lead time than the industrial world. This extra time may help developing countries design more sustainable public pension and welfare programmes than those in place in the industrial world.

The example of Chile is particularly interesting in this regard. A 1980 reform switched the public pension system from an unfunded, defined-benefit plan to a funded, defined-contribution plan. Participation in the plan was made mandatory for the employed and optional for the self-employed. Although strong economic g)wth is partly responsible, the system now has a large portfolio of assets. Related policies have achieved low government deficits. Chile is trying to buiid financial security for the old through a public system that aims at reducing poverty and at raising voluntary savings.

Choices

Large and persistent deficits push up interest rates, reduce investment, and create a burden of indebtedness that is difficult for governments and taxpayers to bear. Further, deficits interfere with the effective functioning of markets at home and abroad. Most important, they compromise the living standards of current and future generations.

The causes of these deficit problems, although complex, have been carefully analysed. Governments of industrial countries have entered into a costly covenant with their citizens by offering generous assistance to the poor, unemployed, disabled, and elderly, and the increased spending has sent debt ratios soaring throughout the industrial world for the past two decades. As population's age and productivity grows slowly, these debts are forcing decisions upon national governments. Most economists agree that measures to reduce government spending are imperative, particularly through restructuring entitlement programmes that have grown beyond sustainable limits. The choices are difficult, but must be addressed soon to buy time for changes to be made gradually, reducing the harm done to those dependent on government transfers and allowing all to adjust to possible new taxes and to the prospect of lower benefits. Further skirting of the deficit issue is irresponsible.

6.5 SUMMARY

In this unit, you have learnt that:

- In nutshell, a public budget is a policy statement of the government with its financial implications. A typical modern government wants to undertake several economic and non-economic activities and pursue a set of policies which have their financial counterparts in the form of receipts, borrowings, and expenditures.
- No government can afford to take taxation, borrowings, expenditure and other fiscal decisions at random. On account of their interdependence, all decisions and policies must be in harmony with its overall set of objectives.

Check Your Progress

9. Fill in the blanks with appropriate words.
   (i) India's balance of payments crisis of 1991 led to _____.
   (ii) Government appointed the Kelkar Committee in August 2012 to suggest _____ within one month's time period.
   (iii) The most important public expenditure management initiative taken by the government relates to its reversal of policy from fiscal expansion to _____.
   (iv) Financial markets in _____ are often inefficient, making it hard for governments to finance their deficits.

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- A *good budget* is one which satisfies criteria identified for a purpose and is prepared on the basis of well-recognized principles. One such principle is that the budget should be accompanied by an account of the performance of the fiscal policies and programmes of the government during the previous year.
- Budgets can be of various kinds—Executive, legislative, multiple, unified, cash-flow based, accrual based, revenue, capital, incremental and zero-based budgets.
- The thrust of zero-based budgeting (ZBB) is to increase the productivity of government expenditure to its highest feasible level. This concept has been borrowed from the commercial world, with this difference that while a commercial enterprise is expected to maximize its profit earnings, a government budget is expected to aim at maximizing aggregate social welfare, that is, the ingredients going into its targeted objective are different from those going into the targeted objective of a commercial enterprise.
- In the sphere of public spending, ZBB was first tried by Jimmy Carter in 1973 when he was the Governor of Georgia. Later on, it was adopted by a number of States in the USA.
- India also thought of adopting it but in a very guarded and uncertain manner. The prevailing circumstances and rapidly increasing government expenditure justify the need for its adoption. This is in spite of the fact that, in our country, existing provisions for scrutinizing expenditure proposals are quite elaborate.
- Every government faces pressures from vested interests. ZBB helps it in withstanding these pressures. It dispels a false sense of security.
- Incremental budgeting (IB) is a technique for formulating the public budget for the incoming year on the assumption that the items of the budget for the outgoing year are to be retained with/without some 'marginal' changes.
- Formulation of IB poses minimal problems. All units (ministries, departments, etc.) engaged in its preparation are able to easily project their resource needs for the incoming fiscal year on the basis of a few leading variables like the provisions in the 'outgoing year' and expected increase in prices, etc.
- IB does not encourage an evaluation of existing fiscal policies or a search for the means of improving them.
- In IB, the basic approach is to retain all the items of the existing (outgoing) budget. In contrast, in ZZB inclusion of each item and its size are subjected to cost–benefit analysis.
- The theoretical foundation of ZBB is a solid and equitable one. Its preparation requires the use of analytical and technical skills, which need not be possessed in ample measure by every government. In contrast, in IB, very limited skill or expertise is required, and consequently it is easier to formulate it.
- It is quite easy to say that a budgetary deficit is simply the excess of public expenditure over public revenue. However, in practice, the concept admits of several variations and yields widely divergent measures of budgetary deficit.
- The excess of expenditure on revenue account over receipts on revenue account measures Revenue Deficit.
- Receipts on revenue account include both tax and non-tax revenue as also grants. Tax revenue is net of states' share as also net of 'Assignment of UT Taxes to Local Bodies'.

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- The excess of capital disbursements over capital receipts measures the Capital Deficit. Plan capital disbursements include those on Central Plan and Assistance for state and UT plans.
- Monetised deficit is defined as increase in net RBI credit to Central government. The rationale for this measure of deficit flows from the inflationary impact which a budgetary deficit exerts on the economy.
- Tolerable limit (or 'crucial' limit) of deficit spending is indicative of that stage beyond which its ill-effects overshadow its benefits. This limit is not an absolute figure but a level related to economic conditions of the country.
- Some countries (including India through its Fiscal Responsibility and Budget Management [FRBM] ACT) have adopted laws to check deficit spending.
- Political leaders have so frequently cried wolf over budgetary spending that voters are sceptical about talk of budgetary crises. This is unfortunate, since deficits should arouse genuine concern, particularly as their size in some industrial countries is daunting.
- Over the past 15 years, India's general government deficits have exceeded 5 per cent in every year except in 2007–08. After a successful consolidation between 2003 and 2008 under the Fiscal Responsibility and Budget Management Act, the deficit again widened during the global financial crisis.
- The widening trade gap, falling investment and difficult economic situation, both domestically and abroad, have added to the negative outlook on the Indian economy.
- Government appointed the Kelkar Committee in August 2012 to suggest 'Roadmap for Fiscal Consolidation' within one month's time period.
- The case of India illustrates the challenges of consolidating the fiscal position when growth is relatively strong.
- Governments have many reasons to wish for higher economic growth, not least because growth eases government finances through higher revenues and lower transfer payments. Although governments cannot fully control their economies, they can pursue policies to enhance growth prospects and to reduce the vagaries of the economic cycle.
- Most electorates find cutting spending more tolerable than increasing taxes. Spending cuts, while painful, can be strategically aimed at unpopular programmes (e.g., welfare in the United States) or be spread across diverse constituencies to impose minimal hardship on voters.
- Cutting expenditures has its limits; increasing taxes is another option. Although tax increases are politically and even economically risky, some countries will need to raise tax rates to cover the projected costs of social security and national health care in the twenty-first century.
- Budgetary issues in developing countries differ from those in industrial countries. Usually smaller and structurally different, developing economies may set other goals from those of industrial nations, focusing, for example, to a greater degree on building infrastructure, creating an industrial base, and encouraging new business formation.
- Most economists agree that measures to reduce government spending are imperative, particularly through restructuring entitlement programmes that have grown beyond sustainable limits.

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6.6 KEY TERMS

- **Public budget:** It is a policy statement of the government with its financial implications.
- **Incremental budgeting (IB):** It is a technique for formulating the public budget for the incoming year on the assumption that the items of the budget for the outgoing year are to be retained with/without some 'marginal' changes.
- **Structural deficit:** When the borrowing requirements of the public sector (PSBR) is adjusted (that is, reduced) for occasional or temporary measures for reducing deficit and raising resources, it is termed Structural Deficit (SD).

6.7 ANSWERS TO 'CHECK YOUR PROGRESS'

1. A public budget is a policy statement of the government with its financial implications.
2. The thrust of zero-based budgeting (ZBB) is to increase the productivity of government expenditure to its highest feasible level.
3. Incremental budgeting (IB) is a technique for formulating the public budget for the incoming year on the assumption that the items of the budget for the outgoing year are to be retained with/without some 'marginal' changes.
4. A major limitation of ZBB is the problem of quantification of costs and benefits of a budgetary item, particularly because of their non-monetary components and spill-over effects.
5. The excess of expenditure on revenue account over receipts on revenue account measures revenue deficit.
6. Fiscal deficit may also be called Gross Fiscal Deficit (GFD). It measures that portion of Government expenditure which is financed by borrowings (that is, all borrowings including those through 91-day ad hoc treasury bills) and drawing down of cash balances.
7. When the borrowing requirements of the public sector (PSBR) is adjusted (that is, reduced) for occasional or temporary measures for reducing deficit and raising resources, it is termed Structural Deficit (SD).
8. Tolerable limit (or 'crucial' limit) of deficit spending is indicative of that stage beyond which its ill-effects overshadow its benefits. This limit is not an absolute figure but a level related to economic conditions of the country.
9. (i) economic liberalization
   (ii) 'Roadmap for Fiscal Consolidation'
   (iii) fiscal consolidation
   (iv) developing countries

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6.8 QUESTIONS AND EXERCISES

Short-Answer Questions

1. What is a good budget? What are the reasons for public budgets becoming ever more complex in most countries including India?
2. From where is the concept of zero-based budgeting borrowed? What is the difference between the commercial enterprise and a government budget?
3. Write a note on zero-based budgeting in India.
4. List the merits and demerits of zero-based budgeting.
5. What are the arguments for and against incremental budgeting?
6. How are zero-based budgeting and incremental budgeting opposite to each other?
7. Write short notes on:
   (i) Deficit on revenue account
   (ii) Fiscal deficit
   (iii) Primary deficit
8. How were the initial years of India's planned development strategy characterized?
9. How does economic growth act as a measure to reduce deficits?

Long-Answer Questions

1. Discuss the classification of public budget with special reference to incremental and zero-based budgeting.
2. Describe zero-based budgeting in India along with its merits and demerits.
3. Assess the differences between incremental and zero-based budgeting.
4. Evaluate the different measures and types of deficits in budget.
5. Explain the tolerable limits of deficit spending.
6. Critically analyse the problems of budget deficit in India.
7. Assess the measures to reduce different deficits.
8. 'Budgetary issues in developing countries differ from those in industrial countries.' Do you agree? Give reasons for your answer.

6.9 FURTHER READING

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UNIT 7 PUBLIC DEBT

Structure

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7.0 INTRODUCTION

In the 18th and 19th centuries, the government, under the influence of *laissez faire* philosophy, which was reflected in economic liberalism, restricted its activities to its minimum unavoidable essential duties of providing protection and security to the citizens. Consequently, the activities of the state were limited to performing only the essential functions of protecting the community against external aggressions and internal disorders by spending on the defence and maintenance of law and order. These functions were considered essential for the preservation of the community.

However, with the passage of time, with an enormous increase in the responsibilities of the state and also with the development of enlightened views on public finance, the governments in order to supplement their traditional financial resources started borrowing from individuals and institutions within the country and also from outside the country. Although borrowing as a source of financing certain government activities has not been unknown in the developed countries, the necessity of the public borrowing by the government is imperative in the case of less developed countries where the taxable capacity of the people is low. In modern times, public debt is as popular in the developed countries as it is in the less developed countries.

In modern times, borrowing by the government has become a normal method of government finance along with other sources of public finance like taxes, fees, etc. In all countries of the world, public debt has shown the tendency of increasing rapidly. In fact, the debt burden, particularly external debt burden, of the world's less developed countries has grown phenomenally and quite disproportionately to the debt servicing capacity of these poor countries. At present, the external debt burden of the third world countries

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has crossed the staggering figure of over $2,000 billion mark and in the case of several individual developing countries of Latin America and Africa, the annual debt servicing burden of payment exceeds or nearly equals their total export earnings. For such unfortunate countries, there is little hope that in any foreseeable future they will be in a position to pay off their foreign debt. In fact, the external debt burden of the Third World countries has been mounting up year after year adding to the grave economic plight of these poor countries. These countries are in the never-ending external debt trap from which these countries find it almost impossible to come out. With each passing year, world's developing countries are sliding deeper in debt.

We find a significant difference in the composition of debt of the developed and developing countries. For example, the total public borrowings of the less developed countries may generally comprise the borrowings made from abroad while in a developed country these mainly consist of the borrowings raised internally from the local authorities, institutions and individuals. It is on account of this significant difference in the composition of public debt that the American economists, including Taylor, have emphasized the internal debt for their country. In India, however, the economists emphasize the external debt. However, both internal debt as well as external debt are the essential and important components of public debt. In this unit, you will get acquainted with the various aspects of public debt.

7.1 UNIT OBJECTIVES

After going through this unit, you will be able to:

- Discuss the differences between private debt and public debt
- Evaluate the importance and classification of public debt
- Describe the two important sources of public borrowings, viz., internal sources and external sources
- Assess the various effects of public debt
- Analyse the Ricardian theory of equivalence
- Discuss the burden of public debt and its types
- Analyse the term debt management
- Explain Domar's Model of management of public debt

7.2 PRIVATE DEBT AND PUBLIC DEBT

The government of a country finances its expenditure from its income. The income of the government consists of what is called public revenue and public debt. In its wider sense, the term 'public revenue' includes all kinds of income. Consequently, it includes also the money that a government borrows. The amount borrowed by the government during any given year constitutes the income of that year. However, since debt has to be repaid to the creditors from whom it is borrowed, it does not constitute the income of the government from the point of the view of the long period. Thus, the main difference between the two is that public revenue consists of the money revenue or income which the government is not obliged to return to the people from whom it is obtained while public debt carries with it the obligation on the part of the government to repay the loan amount together with interest to the creditors from whom it has been borrowed.

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Thus, in a broad sense, public debt may be called 'revenue' of the state. Just as the taxes levied and collected in any given year constitute the income of the government, in the same way loans raised or debt incurred and received in that year also constitute the income of the government of that year. However, the vital difference between the public debt and the other traditional sources of public revenue (taxes, fees, etc.) is that while the former has to be repaid with interest, the latter are not. Taxes are collected from the public without any promise or commitment on the part of the government to provide the taxpayers any service, much less the commitment of paying them back to the taxpayers, but public loans or debt are taken by the government from the banks, institutions and individuals on the explicit understanding given in writing that these shall be repaid on maturity while interest shall be paid regularly, half-yearly or yearly as stipulated in the loan agreement.

The necessity of repaying the loans and various consequences of the different methods of redeeming a loan necessitate a separate study of the subject of public debt.

7.2.1 Differences between Private Debt and Public Debt

In the matter of public borrowing, the government is placed in almost a similar position as is a private borrower. The relationship between the government and the holders of the government bonds is the same as that between a private borrower and a private lender. The government is barely a government in all its characteristics in such transactions. Like a private borrower, the government may also borrow either for unproductive consumption or for investment purposes. The government will also have to pay interest on such borrowings. However, the dissimilarities between the two kinds of debt are quite glaring. The following are the main differences between the private and public debt:

- In times of emergency, like war or economic crisis, the state may force the people and/or institutions in the country to lend funds to it. No private individual or institution can, however, force or compel the other private individuals or institutions to lend.
- In the abnormal circumstances, the state can repudiate the payment of loans taken by it from the public while the private individual can under no circumstance refuse payment of loans to another private individual without inviting legal action. However, normally the state will only in very rare and exceptional circumstances take resort to repudiation of loan because such an act on its part will damage its prestige beyond repair.
- Public debt is generally spent for productive purposes whereas private debt may be spent both for productive as well as for unproductive purposes.
- The state usually repays public debt by taxing the people. The creditors also make their contribution to the extent they also pay taxes in this task of repayment of public debt. In other words, the burden of public debt is also borne by the creditors of the government. As against this, the burden of private debt is never borne by the creditors. In other words, we can say that a private person has to repay his/her debt either out of personal earnings or out of his/her accumulated assets or by borrowing from other sources. While the government can at least partially shift the burden of payment of public debt on the shoulders of the individual creditors in the country in the case of internally held debt.
- The state can unilaterally reduce the rate of interest payable on public loans but a private economic unit is not in a position to do so. Private borrowers have to pay the rate of interest which they have contracted to pay to the lenders.

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- The government may take loans from the public for a very long period while a private person can get loans only for a relatively short period of time. In fact, the public debt may consist of government bonds which have infinite or no maturity period.
- The government may borrow both from the internal and external sources. In other words, it not only borrows from others; technically it can also borrow from itself. When the government covers the budget deficit through the printing of paper notes, it amounts to taking loans from itself. However, a private person can borrow only from external sources.
- The proceeds of public debt are generally spent to promote the welfare of the society, including the creditors. For instance, when the government spends the loan proceeds on development schemes, it benefits almost all the sections of the community. Even the creditors are also benefited through this developmental expenditure. On the other hand, the private debt is not spent in the interest of creditors because it is exclusively spent to finance the individual or private project.
- Being large in amount, public debt significantly affects the production and distribution of wealth and income in the country while a private debt, being small in amount, produces no such effects.
- Since the credit of the government is generally high, it can borrow at lower interest rates than is possible for the private individuals. We can trust a government more easily than a private individual because the government loan is perfectly credit-risk free.

7.2.2 Causes for the Increase in Public Debt

The size of public debt has increased tremendously in modern times. There is hardly any government today which has not contracted loans both from abroad and in the country from its people. Following are the important causes for the extraordinary increase in public debt in modern times.

1. **Abandonment of the *laissez-faire, laissez-passer* policy:** Modern governments have abandoned the policy of *laissez-faire* according to which they indulged in the minimum amount of economic activities in the community. The 19th century philosophy was that the government which governed the least and consequently spent the least was the best. Nowadays, governments actively participate in the economic affairs according to the requirements of the people. The present-day state is a welfare state. Consequently, it resorts to economic planning under which it undertakes the execution of several development projects in order to raise the living standards of people. In order to implement the economic plans it has to borrow funds frequently on a large scale from the public.

   Thus, government takes recourse to public debt for development purposes. Even the governments in advanced countries' have to undertake mass scale construction of public works like roads, railways, irrigation works, power-houses, etc., for accelerating the economic growth of their countries. The less developed countries interested in the optimum utilization of their economic resources find public debt a very useful device to finance the various development projects.
2. **Unpopularity of taxation:** People generally do not like to pay taxes to the government. Taxation, whether old or new, has always been unpopular with the public. The citizens generally oppose the imposition of new taxes and enhancement of the old rates of taxation. To get over this public opposition, the government adopts the easier method of resorting to public debt.

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3. **Facing natural calamities:** Sometimes, the government raises loans in order to face natural calamities, such as, floods, famines, earthquakes, etc. For example, in India, the government of Rajasthan has been spending a substantial amount on the famine relief works compelling it to draw a large overdraft on the Reserve Bank of India. Such cases of natural calamities lead to a sudden spurt in the government expenditure. Thus, the government would be committed to incur a much larger expenditure and would, therefore, run into a sizeable public debt.
4. **Waging of wars:** When a country is engaged in war, it has to borrow heavily from the public. Modern warfare is so costly that the normal income of the state raised through taxation falls substantially short of the actual war expenditure. Besides, taxation beyond certain limits has disastrous consequences on production, and thus interferes with the most important objective during a war, namely, the winning of war. Moreover, a public loan is a better and easier method of collecting revenue than taxation. Governments, therefore, borrow extensively from individuals and institutions toward war financing.
5. **Covering of temporary budget deficit:** Sometimes, the government does not consider it appropriate to meet its budget deficit by resorting to additional taxation. In such a situation, the government resorts to temporary borrowing from public.
6. **Fighting the depression:** During the great depression of the 1930s, the long-practised traditional monetary techniques of raising the economy from the depth of depression failed. Fiscal policy was then devised as a way out to deal with the problem. Depression does not mean that the public has no money to spend. Money is there but due to lack of entrepreneurship, the money remains unutilized. Profit expectations being low, nobody is willing to invest his money. At such a juncture, the government can utilize this money by raising borrowings from the public and utilize these borrowings on its own to raise the level of aggregate effective demand in the economy. On the other hand, the private enterprise may be willing but not able to enhance production and thereby to raise output and employment due to lack of funds. At such times, the government may borrow from the banks and release the borrowed funds often supplementing the private enterprise. Either by ensuring circulation of new money or by activating the idle resources in the economy by raising loans, the government may be able to lift the depressed economy and place it on the road to recovery and lead to prosperity.
7. **Controlling inflation:** By raising public debt, the government can withdraw a large amount of money from the public and prevent prices from rising. Since the monetary policy of the central bank alone has not been very successful, fiscal policy of which the public debt constitutes an important part, has been attaining greater importance ever since World War I.
8. **Financing economic development:** An underdeveloped country is always faced with the shortage of funds. Taxation is resented if it is heavily imposed on the people because the taxable capacity of the people is low. However, the need for finance is imperative in order to take the economy out of the vicious circle of poverty. In such a situation, public loans are the only way out for the government.

7.2.3 Classification of Public Debt

Public loans differ from one another in many aspects. These differences are due to either the markets in which the loans are floated, the rate of interest offered on the government bonds, the conditions of repayment or the purpose for which they are used.

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Thus, public debt can be classified into various categories. For example, we may have internal and external loans, funded and unfunded loans, redeemable and irredeemable loans, productive and unproductive loans. In the past, loans of some governments have also been compulsory but loans of modern governments are voluntary. In times of emergency, the modern governments encourage and sometimes bring moral pressure on the people of their countries to subscribe for public loans (government bonds). However, direct compulsion is hardly ever brought to bear on the people in present times. The main classification of public debt can be discussed as follows:

1. Productive and unproductive public debt: Public debt is incurred for various purposes. Sometimes, a government borrows money in order to construct a railway line or a canal. Sometimes money is borrowed for purposes of famine relief and sometimes it is borrowed to wipe off a deficit in the government budget. It will be seen, therefore, that in some cases, the borrowed money is spent to produce goods or services that can be sold for a price. A railway line, for instance, is a profitable commercial proposition. While some railways do not pay, but many do pay. If the debt is incurred by the government for the purpose of constructing a railway line that pays, it would be called a productive debt. The same applies to a loan raised to finance the construction of an irrigation canal if it is able to pay for itself.

However, the public debt incurred to wipe-off the budget deficit or to help provide employment to people in the famine stricken areas and to supply people with food is not a productive debt. Thus, the word 'productive' here has been used in the businessman's sense. In simple words, we can say that productive debt is that debt whose proceeds are spent by the government directly for productive purposes. The spending of such a debt after some time on the completion of the project on which the borrowed money has been spent increases the revenue of the government out of which the government can pay the interest on this debt. Thus, productive loans add to the total productive capacity of the country. As against this, an unproductive debt is a debt wherein the proceeds are not spent directly for productive purposes. Such loans do not add directly to the productive capacity of the country. Consequently, it becomes increasingly difficult to repay such unproductive loans. It is on this account that this debt (unproductive) is often known as a 'dead-weight debt'.

2. Voluntary and forced public debt: Voluntary debt is taken from the people on a voluntary basis without coercing the people. Ordinarily, public debt is a voluntary debt. However, sometimes the government may take loans from the public even against their wishes. For example, at the time of grave national crisis like war, the government may go to the extent of raising forced loans from the public. In India, the introduction of a compulsory deposit scheme is an example of this forced kind of public loans. Consequently, loans given to the government by the people on their own accord are called voluntary debt, whereas compulsory debt comprises those loans which are taken by the government by coercing the people by virtue of its sovereign powers.

In most cases, the debt incurred by the government is voluntary and no loan is taken against the will of the lenders. However, in emergency when the people do not buy government bonds due to lack of faith in the stability of government, the government may make it compulsory for the people to lend to it a specified amount by forcing the people to buy the government bonds. Such loans (for example, war bonds) are termed as forced loans.

3. Internal and external public debt: The government of a country can go to any national and/or international capital market and borrow funds from there. Internal debt is

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contracted by the government from the individuals and institutions within the country. On the contrary, external debt is taken by the government from the individuals, institutions and/or governments of foreign countries. For instance, under the British rule, the government of India used to take (i) rupee loans which were taken by the government from the people of the country, and (ii) sterling loans which were raised in the London money market. At present, the government of India has profusely borrowed from international financial institutions like the World Bank, the International Development Association, friendly foreign governments and from international capital markets.

There is a general feeling that an internal debt is better than an external debt. Many people denounce the resort to external loans on the part of the government on political grounds by arguing that a foreign loan may carry with it foreign control of the country's economy. The main objection to an external loan seems to be based on the misconception that it involves a drain of wealth from the country. When loans are taken from the foreigners, the country has to pay annually a heavy sum of money by way of payment of interest on these loans. This results in the remittance of huge funds to foreign countries. Consequently, a large chunk of country's limited foreign exchange earnings from exports become non-available for the country's economic development. Moreover, an external debt can also pose a danger to the economic and political independence of the country. On the other hand, if we borrow money in the home market, there is no drain of the scarce national resources and the wealth remains in the country.

A country cannot, however, be rendered bankrupt by an internally held debt because it only causes the redistribution of wealth within the country while an external debt, if not used productively with care, may cause great hardship to the nation by increasing her debt burden beyond her debt repaying capacity. For example, for most of world's underdeveloped countries, the external debt servicing burden absorbs a major part of their total foreign exchange earnings through their limited exports. At present, the servicing of India's external debt accounts for over 22 per cent of the country's total export earnings while for many other developing countries, the debt-service ratio is much higher.

4. Funded and unfunded public debt: Funded debt is that public debt for the payment of which the government establishes a separate fund which is called the sinking fund. Every year the government credits a certain amount of money to this fund. On maturity, the debt is repaid out of this particular fund.

As against this, an unfunded public debt is a debt for the repayment of which the government creates no separate fund. The interest on this debt is paid by the government out of its ordinary income. The principal amount is repaid by the government by contracting additional loans from the market. It is on this account that a funded debt is sometimes also referred to as a floating debt or a long-term debt whereas an unfunded debt is called a short-term debt. Unfunded debt is generally paid off within a year. Treasury bills are an example of unfunded debt because these are generally for a period of three or six months and are never for a period longer than a year.

Unfunded debts are incurred for purposes of financing the temporary deficit gap in the budget. Although the public revenue may be equal to public expenditure, but it may be that due to mismatching of the income and expenditure in the first half of the year the expenditure is greater than the revenue while in the second half the revenue is greater than the expenditure. In such a case, the government would have to borrow some money temporarily during the first six months as this debt can easily be repaid during the second half of the year out of the budget surplus. Such borrowings are, therefore, always in anticipation of public earnings.

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5. Redeemable and irredeemable public debt: Redeemable public debt refers to that debt, the principal amount of which is repaid by the government after a predetermined period of time. The government regularly pays interest on this debt. On the expiry of the maturity period of the debt, the government pays the principal amount to the lenders. It is on this account that it is known as a redeemable debt. In order to repay this loan, the government establishes, a sinking fund and credits a fixed amount of money every year to this fund. On the expiry of the debt period, the principal amount is repaid out of this sinking fund. Public loans are mostly redeemable on maturity.

As against this, a non-redeemable public debt is that debt, the principal amount of which is never returned by the government, although the government continues to pay interest on it permanently. The British Consols issued in 1750 by Prime Minister Henry Pelham's government is an example of such an irredeemable public debt.

The difference between the two kinds of loans is that when a loan is redeemable, the government has to make some arrangement for its repayment and funds have to be obtained for the loan to be repaid. It may be decided to repay it from tax-money and that is, in most cases, the best thing to do. For this purpose, either the old tax rates have to be enhanced and/or fresh taxes have to be imposed on people. In other words, there may be deepening and/or broadening of the tax structure. Which particular tax is better depends on a variety of considerations.

Certainly, it is not wise to go on borrowing without paying off the debt little by little because such a policy would plunge the government in heavy and an ever-growing burden of public debt. Moreover, the interest burden on public loans goes on mounting and the taxpayers will have to pay heavily in the end. Consequently, the redeemable debt is preferable to the irredeemable one because of its convenient method of payment.

7.3 SOURCES AND EFFECTS OF GOVERNMENT BORROWINGS

There are two important sources of public borrowings, viz., internal sources and external sources. Internally, the government may borrow funds from individuals, charitable trusts, financial institutions, commercial banks and other financial intermediaries and the central bank in the country. Externally, the government may borrow from individuals, international financial institutions and foreign governments. We shall discuss the important sources of public borrowing in the following manner. It may be mentioned at the outset that the exact effects of public borrowing will depend to a large extent on the sources of the borrowed funds.

Check Your Progress

1. What is public revenue?
2. How does public debt help during wartime?
3. State the reasons behind the differences in public loans.
4. Define productive debt.

1. Borrowing from individuals: If individuals purchases government bonds, some adjustment in their consumption pattern or in the use of their accumulated savings must occur. When government bonds are sold to individuals, there will be very little direct curtailing either of consumption or business investment. The government bonds will be bought largely from funds that would have been used to buy other securities and perhaps in part from idle cash balances. The diversion from other securities may indirectly have some contradictory effects which will be considered after the review of the other sources of funds since the effect is common to all of them. The net benefit here is that although individually people possess a very small amount to be spent on any small project but the government may use the entire collected amount successfully in building a big project.

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

3. Borrowing from commercial banks: Both the individuals and the non-banking financial institutions purchase government bonds out of their own cash funds. The commercial banks can do so by creating additional purchasing power. The commercial banking system can make additional loans up to a amount determined by the credit multiplier which is determined by their excess cash reserves and the required cash reserve ratio. The credit creation is made possible by the fact that money loaned by a bank is typically added to the accounts of the borrowers and is paid to people who have accounts with other banks.

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

5. Borrowings from external sources: Apart from borrowing from different individual and institutional sources in the country, the government may also borrow from other countries. These borrowings can be used to finance war expenditure or to buy the much-needed defence equipment or to pay for the import of capital goods required for the various development projects, etc. In recent years, the two important external sources of government borrowings are *first*, international financial institutions like the International Monetary Fund, the World Bank Group and the International Finance Corporation. These financial institutions provide loans to the member countries both for short term, for overcoming the temporary balance of payments difficulties and also for long-term, for development purposes. The *second* external source of borrowing is the government assistance from friendly nations which is generally received for development projects. In modern times, for the less developed countries, like India, external sources of government borrowings have become considerably important. Up to the end of June, 2009, India had received the massive long-term loan and development credit assistance of US $20,40,95 million in the form of 1,816 loans and development credits from the World Bank Group comprising the IBRD and the IDA. She has also received massive assistance from the 'Aid India Club', a consortium of the friendly aid-giving countries for her economic development.

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7.3.1 Effects of Public Debt

Following the well-known German economist Adolph Wagner, economists have argued that the government should use its tax income in order to finance its current expenditure and it should take recourse to borrowing from the public only in order to finance its capital expenditure. In modern times, it is commonly accepted that taxation and borrowing can be used for either type of expenditure depending upon the circumstances. In case of less developed countries, both taxation and borrowing are used to finance development projects. The economic effects of government expenditure financed by public borrowing are basically different from the effects of similar expenditure financed by taxation in the following two important aspects:

- Taxation curtails the wealth of the taxpayers while loans do not reduce the wealth of the lenders but merely change its form.
- In taxation, the funds are transferred from the public to the government compulsorily while in the case of borrowing, such a transfer of funds is voluntary.

The uniqueness of public debt lies in the fact that it has its 'revenue effects' as well as its 'expenditure effects'. In the first place, the raising of money by means of a loan makes the people change their budgets. Although it may not directly reduce the consumption expenditure as taxation does because it is not out of the current incomes but out of savings generally that the public loans are purchased by the people but it is certain that the raising of money affects the overall expenditure, consumption and capital expenditure. Thus, as its first effect, public debt affects the overall expenditure of people in the country.

Secondly, the benefits conferred on the people by the expenditure of money raised by public loans, have another kind of effects on the economy. These benefits of the loan need not always be different from those that are conferred on the public by spending the money raised by taxes provided that the borrowed money is used for the same purposes as the money raised by taxes is used.

1. Effects on Consumption and Investment

Government borrowing should not normally result in the curtailment of consumption because lending to the government, being voluntary, will be mostly met out of savings and not through reduction in consumption expenditure; only in case of war-time borrowing programme, substantial pressure is applied on the individuals to reduce their consumption in order to buy government bonds. Otherwise the possible direct adverse effect on consumption is that which may result from special advantages of the new government bonds or the higher interest rates as these might offer some inducement to individuals to save more out of their given income by curtailing their current consumption.

There is greater possibility of adverse effect of public debt on investment. We know that the sale of bonds to the commercial banks having excess cash reserves increases the purchasing power through credit creation. Consequently, it should not curtail investment. On the other hand, the sale of government bonds to individuals reduces the funds which they have for expansion of their own business. There will be no contradictory effect if the bonds are sold to the central bank, to the commercial banks if they have excess cash reserves which they utilize to purchase the bonds, or to the individual lenders who purchase them out of surplus funds.

Apart from these effects, there is one direct effect. The growth of public debt may give rise to the fear of increased taxes in future. The profitability of investment running over a long period of years will appear to be less if it is felt by the people that the government borrowing will result in higher taxes in future.

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2. Effects on the National Income

Since under usual circumstances, the borrowing of funds will have little contractionary effect on the economy, the net effect of a programme of government expenditure financed by borrowing is almost certain to be expansionary. The extent of the expansionary effect will be greater than that arising out of the financing of the same expenditure by taxation. Borrowing will have almost no adverse effect on consumption and no great adverse effect on investment. In contrast, any programme of taxation is certain to have considerable contractionary effect. If government bonds are sold to the central bank, and the commercial banks increase loans on the basis of their larger cash reserves, the borrowing itself, as well as the expenditure of the borrowed funds, will have an expansionary effect on the economy. The only instance in which the overall effect of public borrowing is likely to be contractionary is that in which the borrowing creates great fear about future financial stability of the government.

3. Effects on the Distribution of Income

A programme of government expenditure financed by borrowing increases the real income of those people who benefit from the expenditure without currently reducing the purchase of the bonds (except through price increases with full employment). If the government expenditure is meant to provide greater economic welfare to the lower income groups, the result will be a reduction in the inequalities and a more equal distribution of income between people. However, to the extent the loan finance becomes inflationary some of the favourable effects on the distribution of income may be neutralized.

Another point to be considered here is the payment of interest on the bonds. Interest payment represents a transfer of real income from the taxpayers to the bond-holders because the government will have to tax the people so as to pay to the bondholders the interest and later the principal amount as well. If the bond-holders and the taxpayers are identical persons, there will be no net redistribution of income. This will, however, be possible only in a very rare situation. Consequently, some redistribution of income will take place so long as the taxpayers and the bond-holders belong to the different income groups in the community.

4. Effects on the Allocation of Resources

The public debt, in itself has little effect on resource allocation and, therefore, on the composition of national product. However, to the extent that public debt curtails business investment activity in the economy, the output of capital goods compared with the total output will be less. Furthermore, the decline in investment will not be equal in all the industries, being greater in some industries than in the others. The allocation of resources is not affected by the method of financing.

Check Your Progress

5. What are the two important external sources of government borrowings?
6. Where does the uniqueness of public debt lie?
7. Why should government borrowing not result in the curtailment of consumption?

7.4 RICARDIAN EQUIVALENCE

The Ricardian equivalence proposition is also referred to as Ricardo–De Viti–Barro equivalence theorem. The Ricardian equivalence is an economic hypothesis that holds that consumers are forward looking. Therefore, the budget constraints of a government are internalized by the consumers when they make their consumption decisions. From

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here it follows that for a government's given pattern of spending, the method employed for that spending's financing will not affect the consumption decisions of the agents, and so there will be no change in the aggregate demand. Therefore, the Ricardian equivalence is employed as an argument against tax cuts and increases in the spending capacity aimed to boost the aggregate demand.

The expenditure of a government can be financed by it in two ways—imposing taxes and issuing of bonds. Considering the fact that bonds are after all loans, finally they will have to be repaid and this payment will most probably be done by increasing tax levels at a future date. Hence, the only choice is to impose taxes at that moment or impose them later. This is known as 'tax now or tax later'.

Let us consider that a certain amount of additional spending is financed by the government with the help of deficits, which means that the government makes the choice of 'tax later'. Based on the Ricardian equivalence hypothesis, it will be anticipated by the taxpayers that they will be subjected to higher taxes in the future. Therefore, these tax payers will raise the level of their savings to be in a position to pay higher taxes in the future and in effect will be decreasing their current levels of consumption. The consequence on the collective demand would be similar to the government choosing the tax now option.

The Ricardian theory is related to two factors:

- Income life cycle hypothesis
- Rational expectations on behalf of consumers

An argument put forth is that in case the government uses the path of borrowing money for the purpose of funding a tax cut, it is immediately realized by rational consumers, as already stated, that in future they will be subject to higher taxes and start saving their extra income to be prepared for such a future.

All the consumers are keen on ensuring that they have a smooth consumption pattern throughout their life. Hence, in case a future tax rise is anticipated by consumers, they will immediately put aside the current cuts as savings so that they can smoothly meet the future demand of increase in taxes. This affects the fiscal policy. In case the above is true, then fiscal policy is rendered redundant.

It was in the early 19th century that David Ricardo became the first person to put forth the above mentioned possibility. Nevertheless, he himself was not unconvinced of what empirical relevance it would have. In the 1890s, the Ricardian equivalence was worked upon and elaborated by Antonio De Viti De Marco. In the 1970s, the question was independently taken up by Robert J. Barro so that he could provide a firm theoretical foundation to the proposition.

Ricardo and War Bonds

Ricardo in his '*Essay on the Funding System*' (1820) made a study of the difference that would take place if a war was financed with £20 million in current taxes or by issuing government bonds that came with infinite maturity and annual interest payment of £1 million in all the following years financed by future taxes. Assuming that the rate or interest would be 5 per cent, the conclusion made by Ricardo was that as far as spending was concerned, both the proposals added up to the same value. Nevertheless, Ricardo himself was doubtful as to the practical consequence of this proposition. Ricardo added

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to his initial exposition that it is not exactly in a manner like this that evaluation of taxes is carried out by individuals, and they seem to mostly have a myopic view of the tax path.

7.4.1 Problems Faced by the Theory

The theory of Ricardian equivalence seems to have various problems such as:

- It is not correct to assume that all consumers are rational. Most consumers will not be able to anticipate that the present tax cut will result in taxes being raised at some point in future.
- It is a misleading assumption that any tax cut will result in savings. During the time of recession, there will be a fall in the average propensity to consume and this is not the same as the marginal propensity to consume. There is evidence to show that some of the tax cut money is spent by people even if there is a rise in the average propensity to save.
- Growth can be boosted by tax cuts and requirements for borrowing can also be reduced. During the time of recession, there is usually a sharp rise in government borrowing due to automatic stabilizers (higher spending on unemployment benefits, lower tax revenue). If it is so that with tax cuts both economic growth and spending get boosted, then the increased growth would aid in improving tax revenues and reducing government borrowing. Therefore, with increase in growth and the economy getting out of recession, there will be an improvement in the fiscal position of the government.
- During recession, there will be no crowding out. At the time of recession, there is a rise in savings of the private sector due to lack of confidence. One way to ensure that the savings of the private sector are utilized is by implementing an expansionary fiscal policy. Debates have shown that if there is higher government spending which is also financed by borrowing, it will automatically lead to lower spending in the private sector. This does not seem to be true. The government is not preventing the spending of the private sector, it is in fact making use of the savings of the private sector so that aggregate demand can be increased.
- Multiplier effect: There might be a further rise in spending of the economy when there is an initial increase in government spending and this can lead to the final increase in GDP being much larger than what was initially pumped into the economy.

7.4.2 Ricardo–De Viti–Barro Equivalence

It was in the year 1974 that Robert J. Barro came up with a theoretical foundation for Ricardo's speculation about which even Ricardo had been hesitant. Robert J. Barro possibly was ignorant of the earlier notion put forth by Ricardo and the later extensions added to it by De Viti.

Following are the assumptions of Barro's model:

- 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)
- Government expenditures' path is fixed

In the light of the above assumptions, in case governments finance deficits with the issuing of bonds, whatever legacies are granted to their children by families will not

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be more than what they can use to offset the higher taxes which will be required for the paying off of the bonds that were bought. Part of the conclusion drawn by Barro was as follows:

> ... 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.

For new classical macroeconomics, the proposed model made an important contribution and it was built around the assumption of rational expectations.

According to Barro (1979), the Ricardian Equivalence Theorem is:

> ... 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 'the Ricardian equivalence proposition is presented in Ricardo'. However, Ricardo himself was sceptical of this equivalence.

There is a crucial importance of the Ricardian equivalence in fiscal policy considerations as far as new classical macroeconomics is concerned. In making an assessment of the Ricardian equivalence or for that matter of any new classical doctrine, it is important to remember what assumptions and conditions are attached with them or in other words what is their conditional character. Hence, it is not correct to separate the equivalence theorem from the assumptions associated with it and on which the theorem is based. In other words, Ricardian equivalence does imply that counter-cyclical efforts will fail, and it underlines what conditions are necessary for failure, and therefore, for success. Since government expenditure is fixed, and if agents keep expectations that are rational, there is no potential that the government has for exerting counter-cyclical efforts. In the presence of all of these conditions together, tax cuts mean a pressure for increase in taxes at a future date because the budget's resource gap caused by the initial tax cut has to be filled by the government. Therefore, there is no increase in the consumption as rational agents treasure up the additional income from the tax cut.

It is clear that even if a single condition which has been specified as essential for the working of the equivalence is missing, counter-cyclical fiscal policy would become effective.

Check Your Progress

8. Fill in the blanks with appropriate words.
   (i) The Ricardian equivalence proposition is also referred to as _____ equivalence theorem.
   (ii) The expenditure of a government can be financed by it in two ways: _____ and _____.
   (iii) It was in the year 1974 that _____ came up with a theoretical foundation for Ricardo's speculation.

7.5 BURDEN OF PUBLIC DEBT AND MANAGEMENT OF PUBLIC DEBT

The government needs to borrow funds by the public through public debts to meet the needs of various development and non-development programmes. Burden of public debt is of two types: internal public debt and external public debt.

7.5.1 Internal Public Debt

We may discuss the burden of an internally-held public debt under the following headings:

1. **Direct money burden:** In the case of internal public debt, there is no direct money burden on the community as a whole since the payment of interest on the debt and the imposition of taxes to pay the interest involve simply a transfer of purchasing power from one group of persons to another. In fact, taxes raised in order to pay the interest on government bonds are also imposed on and paid by the rich people who are also the purchasers of government bonds and consequently

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the interest recipients. It means that the government takes away money from their left pockets and returns it back in their right pockets. Thus, in internal public debt, there is only a redistribution of purchasing power. To the extent that the bond-holders and taxpayers are the same set of persons, there may not be any net burden at all on the community. However, to the extent the bond-holders and the taxpayers belong to different income groups, there will occur changes in the distribution of income between different sections of people in the society. For example, when the government raises internal loans, the purchasing power gets transferred from the lenders to the government. The government, in its turn, spends the loan proceeds on productive works as a result of which the purchasing power again gets transferred to the producers, contractors, workers, etc.

2. **Indirect money burden:** When the government spends the loan proceeds on development projects, it results in the creation of demand for several commodities and services. As a consequence, the prices of these goods and services rise, imposing additional burden on the society. This is the indirect money burden of an internal public debt.
3. **Direct real burden:** The government repays the principal amount and interest in the case of internal debt by imposing new taxes on the people. Ordinarily, the taxpayers are poor people while the lenders are relatively rich. When the government pays the principal and the interest to the bond-holders after collecting money through taxes imposed on the people, it results in the transfer of the purchasing power from the poorer sections to the richer sections of the community. Consequently, the inequalities in the distribution of income and wealth in society get further accentuated. Besides, the taxpayers are generally the active people while the creditors are invariably inactive people, mostly living on their past accumulated wealth. The ultimate result of the repayment of internal public debt is that wealth gets transferred from the active sections of society to the inactive sections of society. This is contrary to national interest. This is the direct real burden of the internal public borrowing.
4. **Indirect real burden:** The government imposes additional taxes on the public to repay the public debt. As result of this, the economic inequalities in the country get further accentuated as most taxes are levied on poor people in the form of indirect taxes. This produces adverse repercussions on the capacity to work and save of the people. Consequently, the productive power of the people declines. This is the indirect real burden of internal public borrowing.

7.5.2 Burden of External Public Debt

The incidence of external public debt can be discussed under the following headings:

1. **Direct money burden:** In the case of external public borrowing, the debtor country has to pay to the creditor country every year huge sums of money by way of payment of interest on loans. After the maturity of debt, the principal amount of loan has also to be paid to the foreign country in the foreign exchange. In order to earn this foreign exchange, the country has to make exports. Such exports for which the country receives no payment from the foreign country are known as 'unrequited exports' and represent the direct money burden of an external public debt on the nation. Today, the developing countries are caught in the external debt trap and the debt-service ratio of many of these debtor countries is very high, standing above 50 per cent, while the debt-export ratio has been well above

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the 300 per cent level. In case of India, the debt-service ratio is around 30 per cent while the debt-export ratio is around 225 per cent.

2. **Indirect money burden:** Sometimes, the debtor country has to pay interest in terms of the goods and services to the creditor country. In other words, the debtor country has to export goods and services on a large scale to the creditor country. This inevitably results in a rise in the prices of these goods and services in the country. As a consequence, there is a steep fall in the economic welfare of the community. This fall in community's welfare shows the indirect money burden of the external public debt.
3. **Direct real burden:** The government very often imposes new taxes on the people to pay the external debt. Ordinarily, the burden of these taxes falls more heavily on the poor sections than on the rich sections of the society. This shows the direct real burden of the external public debt.
4. **Indirect real burden:** As we know, the government imposes taxes on the people to pay the external debt as a consequence of which the capacity of the people to work and to save declines. Ultimately, this decline in peoples' capacities produces unfavourable effects on production. It shows the indirect real burden of an external public debt. Apart from all this, an external public debt is also fraught with the danger of the debtor nation becoming a political hegemony of the creditor nation.

7.5.3 Management of Public Debt

The term debt management refers to the formulation and implementation of a debt policy designed to achieve certain objectives. According to the traditional philosophy, debt management consisted of minimizing its interest cost and paying it off as early as possible. However, a modern welfare state uses debt management as a policy tool for achieving various socio-economic objectives. Of course, every government is still interested in keeping the interest cost to the minimum possible but if this objective is in conflict with other objectives, it is sacrificed. Other important objectives before authorities include economic stabilization, growth, employment and overall soundness of the financial system as a whole.

Debt management policy has to run in harmony with the monetary management of the country. They both influence stabilization and economic growth. Open market operations are usually conducted by sale/purchase of government securities. Through general and selective credit controls, monetary policy tries to influence the volume and flows of funds and thereby the working of the entire economy. The way in which debt management can also contribute to this policy objective has been discussed above. It has also been seen how the objective of reducing interest cost on debt can come into conflict with the anti-cyclical monetary policy of the country.

It should be noted that the aggregate volume of outstanding debt reflects a cumulative effect of budgetary policy of the government. The volume of debt increases or decreases in line with deficit or surplus budgeting. But monetary policy can aim to alter the volume and composition of money and credit without any such constraint. In the case of public debt, the management part would mainly comprise changing its maturity composition so as to affect its yield structure and liquidity content. But it must be reiterated that monetary policy and public debt are closely linked.

In a big country with a multi-layer government, effort must be made to ensure inter-government coordination. Care has also to be taken to ensure that their borrowing

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programmes and terms and conditions of loans to be raised do not come in conflict with each other. Normally, the national government is able to borrow at lower rates than a sub-national government. Therefore, the rates of interest offered on central and state governments, loans should vary to accommodate this fact. Again different governments should avoid entering the market at the same time or in quick succession, particularly if the availability of funds in the market is limited compared with combined requirements of the governments. In India, the task of coordination in all these aspects is entrusted to the Reserve Bank of India. It advises them regarding the timings, terms, and the amounts of loans that can be raised in the market without undue difficulty.

7.6 DOMAR'S MODEL: MANAGEMENT OF PUBLIC DEBT

Before the Keynesian ideas gained momentum, deficit in government's budget was considered bad and balanced budget was the norm. After the publication of *The General Theory of Employment, Interest and Money* in 1936, Keynesian ideas came into dominance. Keynesian followers recommended budget deficit in times of recession and budget surplus in times of boom and inflation to stabilize the economy at the full employment level of output.

A cyclically-balanced budget, i.e., balanced budget over a cycle was thus recommended. However, in the post-war period there was a widespread belief that demand deficiency was the norm rather than a cyclical phenomenon in a mature capitalist economy. This belief was based on high propensities to save and low propensities to invest.

Persistent budget deficit was required to keep these economics at full employment levels of output. It was viewed as the single measure for stabilization because monetary policy was found to be largely ineffective owing to high-interest elasticity of money demand and low interest sensitivity of aggregate demand for goods and services.

Keeping this view in mind, Domar (1944) examined whether persistent budget deficit was sustainable. Keynesian consensus as mentioned above, collapsed since the seventies. The belief today is that forces operating through the price system keep market economies close to the natural rate of output and deviations of output from its natural rate due to shifts in demand are transient phenomena.

We can say that Domar's enquiry remains relevant even today for two reasons.

- Despite changes in beliefs, many governments the world over are plagued with persistent large fiscal deficits.
- Long recessions in Japan in the early nineties and in India since 1997 signal, a la Krugman (1999), return of depression economics. In both the countries attempts at reviving the economics led to large fiscal deficits.

Persistent fiscal deficit and the consequent growth in public debt may become unsustainable in the long run. It becomes unsustainable when interest charges on public debt as a proportion of GDP go on rising over time. If interest charges on public debt as a proportion of GDP keep on increasing over time, they will gradually exhaust the entire taxable capacity of the economy and beyond that point the government will be unable to raise additional taxes to meet its interest obligations. Due to this, public borrowing will become unsustainable. The government will be forced to suspend its borrowing programme. In fact, government borrowing will become unsustainable much before the

Check Your Progress

9. What is the indirect money burden of an internal public debt?
10. What are 'unrequited exports'?
11. Define debt management.

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above-mentioned point is reached since the increase in interest charges as a proportion of GDP will start crowding out many kinds of public expenditures, which are absolutely essential for the smooth running of the economy.

The government can finance its debt obligations by creating money or by additional borrowing, but that will generate income in the hands of the people in addition to GDP and will thereby lead to crowding out of private investment even when the economy operates with less than full employment level of output. If the economy operates at the full employment level of output, creation of interest income in addition to GDP will exert upward pressure on prices generating inflation and, as we have already explained, may crowd out private investment fully. Formally, an increase in *(ib)* financed by money creation or borrowing will raise disposable income, $(1 - / + ib)Y$, corresponding to any given Y, and thereby produce the kind of impact on the consumption function and *IS* as explained earlier. The increase in money supply that occurs when the increase in *(ib)* is financed by money creation on the other hand will shift the *LM* to the right. If the debt-GDP ratio, b, is sufficiently large, the equilibrium Y will be at or quite close to the full employment level of output. (Explain this point.) In this situation, if the government resorts to creation of money or borrowing from the public to finance interest charges, it will make the *IS* intersect the *IM* beyond the potential or full employment level of Y generating, as we have pointed out earlier, strong inflationary pressure. Therefore, if *ib* rises to a sufficiently high level, money or debt financing of interest charges will lead to severe macroeconomic instability and. therefore, will be infeasible. Borrowing to pay interest charges on public debt, as we have mentioned already, is called Ponzi game. From the above it is clear that the government cannot go on playing the Ponzi game forever, when interest charges on public debt as a proportion of GDP is rising continuously. Sooner or later it will generate macroeconomic instability of serious proportions. Therefore, if debt-GDP ratio rises to a sufficiently high level, the government will be forced to stop borrowing. It will not be able to take any more loans.

Domar (1944) was the first who formally addressed the problem of sustainability of public debt in the long run. He initiated the conditions under which public debt becomes unsustainable in the long run, when government runs a fiscal deficit every period. Domar considered the situation where the ratio of government's consumption to GDP and that of taxes net of subsidies and transfers to GDP are fixed. These ratios are denoted by E and R respectively. There is no government investment, Real GDP of the economy grows at a constant exponential rate. g. Government borrows at a fixed real rate of interest, r_0. Note that at any point of time outstanding public debt increases by the amount of government borrowing taking place at that point of time. In this situation fiscal deficit and, therefore, public borrowing in period τ is given by

$$\frac{d\tilde{D}}{d\tau} = (E-R)Y_0 e^{g\tau} + r_0 \tilde{D}_\tau \tag{7.1}$$

where $\tilde{D}$ = real value of outstanding public debt, Y = real GDP, τ = time and Y_0 = initial value of real GDP. Solving (7.1) and dividing by 7, we get

$$d\left(\equiv\frac{\tilde{D}}{Y}\right) = \left(d_0 - \frac{E-R}{g-r_0}\right)e^{-(g-r_0)\tau} + \frac{E-R}{g-r_0}, \quad d_0 \equiv \frac{\tilde{D}_0}{Y_0} \tag{7.2}$$

where $\tilde{D}_0$ = initial value of $\tilde{D}$. From (7.2) it follows that d will approach a stable value over time if and only if $g \geq r_0$. However, public borrowing is unsustainable if $r_0 > g$.

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Following Fischer and Easterly (1990), we can derive the Domar condition for sustainability of public debt in a slightly modified form in the following way: Denoting the nominal value of outstanding public debt, as we have done before, by L and the ratio of L to nominal GDP, PY, by 6, we get

$$b = \frac{L}{PY} \Rightarrow \log b = \log L - \log P - \log Y$$

Differentiating the above equation with respect to τ, we have

$$\hat{b} = \hat{L} - \hat{P} - \hat{Y}; \hat{b} \equiv \frac{db/d\tau}{b} \equiv \frac{\dot{b}}{b}, \hat{L} \equiv \frac{dL/d\tau}{L} \equiv \frac{\dot{L}}{L}; \hat{P} \equiv \prod \equiv \frac{dP/d\tau}{P} \equiv \frac{\dot{P}}{P}$$

$$\text{and} \quad \hat{Y} \equiv g \equiv \frac{dY/d\tau}{Y} \equiv \frac{\dot{Y}}{Y} \tag{7.3}$$

Denoting primary deficit by Z and fiscal deficit by F, we have (ignoring seigniorage or financing by money creation for simplicity)

$$\frac{dL}{d\tau} = F = Z + iL \tag{7.4}$$

Substituting (7.4) into (7.3), we can rewrite it as

$$\hat{b} = \frac{(Z+iL)}{L} - \prod - g = \frac{(Z/PY)}{(L/PY)} + i - \prod - g = \frac{z}{b} + r - g$$

$$\dot{b} = z - b[g-r]; \quad z \equiv (Z/PY), r = i - \prod$$

where $r \equiv$ real rate of interest. Equation (7.5) implies the following

$$\dot{b} > 0 \Leftrightarrow z > b[g-r] \tag{7.5}$$

The above inequality implies that, to prevent b from rising over time, i.e.. to avoid the problem of sustainability of public debt, the government should not allow z to exceed $b[g-r]$. If we calculate the value of $b[g-r]$ on the basis of the data of the year 2003 for the Indian economy, it comes to 1% (since $b \cong (1/2)$, $\Pi \cong$ 6%, $g \cong 6\%$ and $i \cong 10\%$ $\Rightarrow$ RHS = (1/2) [6 – 4] = 1%). Restriction on z amounts to restricting the size of the fiscal deficit as a proportion of nominal GDP as well. Denoting the amount of fiscal deficit as a proportion of nominal GDP by f, we have:

$$f = z + ib \tag{7.6}$$

From (7.6) it follows that, if the ceiling on z is 1% then that on / on the basis of the data of the given year is 6% (since ib = (1/2) 10% = 5%). Domar approach, therefore, recommends a ceiling on the size of the fiscal deficit as a proportion of nominal GDP to avoid the problem of sustainability of public debt.

7.7 SUMMARY

In this unit, you have learnt that:

- The government of a country finances its expenditure from its income. The income of the government consists of what is called public revenue and public debt. In its wider sense, the term 'public revenue' includes all kinds of income. Consequently, it includes also the money that a government borrows.

Check Your Progress

12. What did the Keynesian followers recommend regarding budget deficit?
13. Who addressed the problem of sustainability of public debt in the long run?

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- The relationship between the government and the holders of the government bonds is the same as that between a private borrower and a private lender. The government is barely a government in all its characteristics in such transactions.
- Public debt is generally spent for productive purposes whereas private debt may be spent both for productive as well as for unproductive purposes.
- When a country is engaged in war, it has to borrow heavily from the public. Modern warfare is so costly that the normal income of the state raised through taxation falls substantially short of the actual war expenditure.
- Public loans differ from one another in many aspects. These differences are due to either the markets in which the loans are floated, the rate of interest offered on the government bonds, the conditions of repayment or the purpose for which they are used.
- Redeemable public debt refers to that debt, the principal amount of which is repaid by the government after a predetermined period of time. The government regularly pays interest on this debt. On the expiry of the maturity period of the debt, the government pays the principal amount to the lenders.
- There are two important sources of public borrowings, viz., internal sources and external sources. Internally, the government may borrow funds from individuals, charitable trusts, financial institutions, commercial banks and other financial intermediaries and the central bank in the country.
- The two important external sources of government borrowings are *first*, international financial institutions like the International Monetary Fund, the World Bank Group and the International Finance Corporation. The *second* external source of borrowing is the government assistance from friendly nations which is generally received for development projects.
- Following the well-known German economist Adolph Wagner, economists have argued that the government should use its tax income in order to finance its current expenditure and it should take recourse to borrowing from the public only in order to finance its capital expenditure.
- Government borrowing should not normally result in the curtailment of consumption because lending to the government, being voluntary, will be mostly met out of savings and not through reduction in consumption expenditure; only in case of war-time borrowing programme, substantial pressure is applied on the individuals to reduce their consumption in order to buy government bonds.
- The Ricardian equivalence proposition is also referred to as Ricardo–De Viti–Barro equivalence theorem. The Ricardian equivalence is an economic hypothesis that holds that consumers are forward looking. Therefore, the budget constraints of a government are internalized by the consumers when they make their consumption decisions.
- The expenditure of a government can be financed by it in two ways—imposing taxes and issuing of bonds. Considering the fact that bonds are after all loans, finally they will have to be repaid and this payment will most probably be done by increasing tax levels at a future date. Hence, the only choice is to impose taxes at that moment or impose them later. This is known as 'tax now or tax later'.
- It was in the year 1974 that Robert J. Barro came up with a theoretical foundation for Ricardo's speculation about which even Ricardo had been hesitant. Robert J. Barro possibly was ignorant of the earlier notion put forth by Ricardo and the later extensions added to it by De Viti.
- In the case of internal public debt, there is no direct money burden on the community as a whole since the payment of interest on the debt and the imposition of taxes to pay the interest involve simply a transfer of purchasing power from one group of persons to another.
- In the case of external public borrowing, the debtor country has to pay to the creditor country every year huge sums of money by way of payment of interest on loans.
- The term debt management refers to the formulation and implementation of a debt policy designed to achieve certain objectives. According to the traditional philosophy, debt management consisted of minimizing its interest cost and paying it off as early as possible.
- In a big country with a multi-layer government, effort must be made to ensure inter-government coordination. Care has also to be taken to ensure that their borrowing programmes and terms and conditions of loans to be raised do not come in conflict with each other.

7.8 KEY TERMS

- **Public revenue:** It consists of the money revenue or income which the government is not obliged to return to the people from whom it is obtained.
- **Public debt:** It carries with it the obligation on the part of the government to repay the loan amount together with interest to the creditors from whom it has been borrowed.
- **Productive debt:** It is that debt whose proceeds are spent by the government directly for productive purposes.
- **Voluntary debt:** Loans given to the government by the people on their own accord are called voluntary debt.
- **Compulsory debt:** It comprises those loans which are taken by the government by coercing the people by virtue of its sovereign powers.
- **Redeemable public debt:** It refers to that debt, the principal amount of which is repaid by the government after a predetermined period of time.
- **Unrequited exports:** Exports for which the country receives no payment from the foreign country are known as 'unrequited exports' and represent the direct money burden of an external public debt on the nation.
- **Debt management:** It refers to the formulation and implementation of a debt policy designed to achieve certain objectives.

7.9 ANSWERS TO 'CHECK YOUR PROGRESS'

1. Public revenue consists of the money revenue or income which the government is not obliged to return to the people from whom it is obtained.
2. When a country is engaged in war, it has to borrow heavily from the public. Modern warfare is so costly that the normal income of the state raised through

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UNIT 8 FISCAL POLICY IN A CLOSED ECONOMY

Structure

8.0 Introduction
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8.2 Instruments of Fiscal Policy: Tax, Borrowing and Expenditure
  8.2.1 Usefulness of Fiscal Policy
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8.0 INTRODUCTION

As an instrument of macroeconomic policy, fiscal policy has been very popular with the modern governments to influence the size and composition of the national product, employment, industrial production, prices, etc., in the economy. The deliberate use of fiscal policy as a means to achieve and maintain full employment and price stability in the economy has been a characteristic feature of the past seven decades after the publication of John Maynard Keynes' well-known book titled *The General Theory of Employment, Interest and Money* in 1936. The post-Keynesian popularity of fiscal policy has been largely due to the following three factors:

1. Ineffectiveness of the monetary policy as a means of removing mass unemployment in the great depression of the 30s.
2. Development of 'new economics' by John Maynard Keynes with its stress on the role of aggregate effective demand.
3. Growing importance of government spending and taxation in relation to the national income and output.

From its modest beginnings in the 40s, fiscal policy today has become a major macroeconomic policy instrument employed by the governments to achieve full employment, to prevent inflation and to promote rapid economic growth.

Following Keynes, economists have argued that substantial amount of spending and fund raising in the form of taxation by government are capable of changing the size of national product and the tempo of aggregate economic activity in the system. By determining what goods and services will be produced, the fiscal operations of the government affect significantly the direction of employment of the economy's resources.

Government expenditure and tax revenue are not, however, closely related to one another. In any given year, government's total expenditure and total tax receipts may be unequal in which case the budget will be either a deficit or a surplus budget. When the

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expenditure and income of the government are equal, the budget is said be a balanced budget. The use of budget deficit and surplus in order to affect the level of the aggregate economic activity or to maintain economic stability or to promote economic growth in the economy is the essence of fiscal policy. Both the Keynesian and the neo-Keynesian economists rely primarily on the fiscal policy to stabilize the economy. During a major recession, such as the one which occurred in the 1930s, even the monetarists believed that fiscal policy could be used more effectively to increase the level of aggregate demand in the economy. In this unit, you will get acquainted with the concept of fiscal policy and its various aspects.

8.1 UNIT OBJECTIVES

After going through this unit, you will be able to:

- Discuss fiscal policy as an instrument of macroeconomic policy
- Describe government expenditure, tax income and public debt as important instruments of fiscal policy
- Assess the usefulness of fiscal policy and the roles of multiplier and accelerator
- Analyse the contra-cyclical fiscal policy
- Explain the crowding out effect

8.2 INSTRUMENTS OF FISCAL POLICY: TAX, BORROWING AND EXPENDITURE

In his epoch-making book *The General Theory of Employment, Interest and Money,* Keynes used fiscal policy when referring to the influence of taxation on savings and government investment spending financed through loans raised from the public. Keynes looked at it as a state policy which used public finance as a balancing factor in the economy's development. Ordinarily, by fiscal policy is meant a policy which affects the important macroeconomic variables—aggregate output, employment, saving, investment, etc., through the budgetary manipulation. Fiscal policy refers to the regulation of the level of government spending, taxation and public debt. According to Arthur Smithies, the term fiscal policy refers to 'a policy under which a government uses its expenditure and revenue programmes to produce desirable effects and avoid undesirable effects on the national income, production and employment.' According to Buehler, 'by fiscal policy is meant the use of public finance or expenditure, taxes, borrowing and financial administration to further our national economic objective.' According to Fred R. Glahe, by fiscal policy is meant the regulation of the level of government expenditure and taxation to achieve full employment in the economy. While referring to fiscal policy here we mean *pure* fiscal policy. A fiscal policy affects the level of government spending or taxation while the nominal money supply remains constant.

Government expenditure, tax income and public debt act as important instruments to influence aggregate outlay, employment and prices in the economy. A given change—increase or decrease—in aggregate government expenditure causes a change—increase or decrease—in the aggregate demand thereby increasing or decreasing the factor incomes. Government expenditure incurred on wages and salaries of its employees, interest paid on government debt, social security and old age pension payments, all tend

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to increase the disposable personal income of people as a consequence of which the aggregate demand for consumer goods increases. Thus, an increase in the total expenditure of government tends to expand the aggregate economic activity in the economy. On the other hand, taxes levied on the people to finance government expenditure tend to reduce disposable personal and corporate incomes which could have been either spent on consumption or devoted to capital formation through saving. Thus, taxes tend to reduce the aggregate demand and income in the economy. These effects of government budget are equally valid for the Central, State and local government budgets although the budget of the Central government is much more powerful in affecting the level of aggregate economic activity in the economy than are the combined budgets of all the States and local bodies like the municipal and district boards.

Government expenditure and revenue can be combined in several ways in order to stimulate or depress the aggregate effective demand and economic activity in the economy. A surplus in the budget will exert a deflationary effect on national income because the inflow of aggregate government expenditure into the circular income flow will be less than the tax leakage from the circular income flo . Conversely, a deficit in the budget expands the net national product since the leakage from the aggregate income flow due to taxes is less than the additional inflow into the circular flow in the form of government expenditure. It follows, therefore, that in slump when there is need for expanding the aggregate demand deficit budget while in inflation when the problem is of preventing the aggregate demand from exceeding the aggregate supply, surplus budget should be prepared. This generalization should not, however, lead us to conclude that a balanced budget is neutral in its effects on the national income and economic activity in the system. Depending upon particular circumstances, a balanced budget may be no less important than an unbalanced—deficit or surplus—budget.

For a correct appraisal of the effects of government's fiscal policy on the level of aggregate economic activity, apart from the magnitude of government expenditure and revenue, their composition or structure is also equally significant. A given amount of revenue can be realized by the government in several ways—by levying taxes, by increasing the area of and profits from commercial activities and by borrowing from the public. However, even though the revenue raised through these several alternative methods may be the same, each method of raising revenue will affect the economy differently. For example, the same amount of revenue may be raised either through taxing the people or through floating bonds in the market but the effect of each one of these two methods of raising the government revenue will be different. Even in the case of taxes the effects will be different in the case of different tax levies like the income-tax and excise duty.

Similarly, the government can incur a given expenditure in several ways. It might, for example, spend upon building hospital or slum clearance or on the construction of a sugar mill or on unemployment doles. The effect on the level of aggregate economic activity will be different although the total expenditure is the same in each case. An expenditure of ₹5 crore incurred on constructing a new national highway or on slum clearance will not affect the aggregate investment activity in the private sector adversely; if anything, it will affect private investment favourably by causing an increase in the demand for raw materials and equipment needed for road construction or for housing the slum dwellers. But if the same amount is spent for starting a new sugar factory, it might cause an offsetting fall in the aggregate private investment by depressing the marginal efficiency of capital in the private sector. Consequently, the beneficial effects

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of public expenditure on the level of aggregate economic activity will be partially lost. Thus, a balanced budget is not neutral in its effects on national income and economic activity unless it is assumed that the composition of expenditure and income remains unchanged from year to year. Although the level of aggregate economic activity in the economy can be affected by varying the size of a balanced budget, the stabilizing effect of the fiscal policy depends largely on the size of the surplus or deficit in the budget. The extent to which fiscal policy can prove effective as an instrument of economic stability depends on the extent to which the government can vary the difference between the income and expenditure rather than upon the balanced budget and the change in its size.

As an instrument of macroeconomic policy, the goals of fiscal policy are likely to be different in different countries and in the same country in different situations. For example, while in a developed economy operating either at the full or at near-full employment level the goal of fiscal policy should be the maintenance of full employment while in a developing economy the main concern of fiscal policy has to be the promotion of economic growth with stability and reduction in the economic inequalities.

Broadly speaking, overall fiscal policy involves two types of important decisions. While one of these two decisions is related to the goal of full employment, the other is concerned with determining the social priorities. The second policy decision is concerned with the issue of allocation of economy's productive resources as between their different rival uses—should more resources be allocated for education, health care, public housing, slum clearance, transport, etc. The government expenditure on different items in any society will be determined by the prevailing social values.

Economists generally agree that fiscal policy should be employed to achieve full employment and economic stability in the economy. Before the great depression of the 30s, by economic stability was largely understood the stability of the general price level. The severity of the depression focussed attention on the need to remove unemployment and to employ fiscal policy for this purpose. The Employment Act of 1946 in the USA stated that it was the responsibility of the federal government to use all possible means, including fiscal policy, to promote maximum employment, production and purchasing power in the economy.

After the Second World War, inflation has become a worldwide problem. Consequently, economic stabilization has come to be widely defined so as to include the elimination of inflationary pressures in the economy. This means that the achievement of full employment and price stability should be simultaneously attained through the instrument of fiscal policy. At times, however, both these goals may be difficult to achieve as these might be mutually inconsistent. An economy which wants to achieve full employment must accept moderate price rise unless it resorts to price control, rationing and wage freeze policies.

8.2.1 Usefulness of Fiscal Policy

Budgetary or fiscal policy comprises steps and measures which the government takes both on the receipts and expenditure sides of its budget, including rules, regulations and procedures relating to them. To ensure its consistency with the overall economic policy of the government, its contents should not be selected in a piecemeal and haphazard manner. This frequently poses some difficult problems because some components of the policy may be contradictory to each other. The field of fiscal policy is not very clearly demarcated from those of monetary policy and debt management because they all make use of several common components but aim at different sets of goals. It is frequently

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maintained that fiscal policy should mean that segment of government's economic policy which concerns itself 'with aggregate effects of government expenditures and taxation on income, production and employment'. According to this limitation, the micro-level effects of various taxation and expenditure measures need not be included in fiscal policy proper. Mrs Hicks says that 'Fiscal policy is concerned with the manner in which all the different elements of public finance, while still primarily concerned with carrying out their duties (as the first duty of a tax is to raise revenue), may collectively be geared to forward the aims of the economic policy.' The crux of a good and effective fiscal policy lies in keeping its ingredients like expenditure, loans, transfers, tax revenues, income from property, debt management, and the like in a proper balance so as to achieve the best possible results in terms of the desired economic objectives. Discussion of individual taxation and expenditure measures is generally left out of the field of fiscal policy. But this is done only for the sake of simplicity of analysis. Essentially, a fiscal policy is meaningless unless necessary details are filled in.

Usefulness of fiscal policy lies in its facilitating the achievement of socio-economic objectives of the society. But it must not be forgotten that fiscal policy is only one of the several sets of weapons in the hands of the government. It should also be emphasized that fiscal policy tries to achieve its objectives by regulating the working of market mechanism (while in contrast, some other weapons may by-pass it). The extent of its success, therefore, largely depends upon the response of market forces to various policy steps initiated by the government.

Recognition

The fact that fiscal policy can be a potent tool in the hands of the authorities came to be recognized only slowly. For decades, both official and academic thinking favoured *laissez faire* and balanced budgets. This policy, obviously, had its own drawbacks. As Keynes pointed out, an attempt to balance the budget results in its imbalance and vice versa. The rationale and usefulness of fiscal policy came to be recognized only during 1930s and later. With the advancement of growth theory, it was also discovered that long run stability also contributes to economic development. With the popularity of planning and realization of the need for accelerating rate of capital accumulation, fiscal policy has been accorded an important role in underdeveloped countries also. There, it is directed not only to stability, but also towards promoting savings, investment and reduction in distributive inequalities and regional disparities. At the same time, on account of severe rigidities in socio-economic institutions and markets, the task of restructuring fiscal policy is far more difficult in underdeveloped countries. In such countries, there is a need to simultaneously direct it at several targets, which also poses additional problem of priority-mix and object-rating.

Fiscal Policy and Stability

The problem of stability refers to that of recurring cyclical phases of upward and downward cumulative movement in income, employment, output and prices, etc. in the economy. In an underdeveloped country, such an instability is mainly caused through pressures originating from abroad and imported through variations in imports, exports, and external resource flows. Recognition of a close relationship between price changes and the level of output and employment, particularly in developed market economies, has led some economists to claim that economic *stability should be interpreted to mean a steady non-inflationary economic expansion in output and employment*

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coupled with a very mild rise in prices. It is argued that a very mild inflation enables an economy to achieve a continuous expansion.

Roles of Multiplier and Accelerator

The development of the concepts of 'multiplier' and 'accelerator' and the relationship between the macro variables like investment, income, consumption, and savings enabled the economists to visualize the mechanics of trade cycles and the role which the fiscal policy could play in an economy. This gave rise to the principles of **compensatory finance and functional finance.** It was realized that, to a great extent, fiscal policy can be effectively used by the government to neutralize the destabilizing forces. The general theoretical framework of this reasoning is that a depression is caused by a deficiency of effective demand and fiscal policy can remedy it by increasing public expenditure and by encouraging private expenditure. Similarly, during a boom period, the need is to control the demand which again can be partly done through curtailing public expenditure and partly through curbing the private expenditure. Thus, Keynesian remedial scheme is essentially neutralizing changes in total **effective demand** by increasing it during a depression and decreasing it during a boom.

During a depression, public expenditure should be increased through incurring public investment and enhancing consumption expenditure of the government. Similarly, subsidies (with or without tax concessions) can be used to encourage private consumption and investment. The principle of balanced budget multiplier tells us that a net increase in aggregate effective demand can be achieved by simply expanding the size of public budget.

At this juncture, it is noteworthy that Keynes emphasized the role of fiscal policy (particularly that of public expenditure) to the neglect of monetary policy in fighting cyclical fluctuations and more so the chronic depression. In the process, however, he ignored the risk of government narrowing its 'fiscal space' (that is scope for budgetary manoeuvrability) on account of mounting public debt.

These days it is recognized that deficit financing is a very potent tool in the hands of the government for increasing effective demand. This is more so if the deficit is financed through creation of additional currency or borrowings from the central bank of the country. Even when the government borrows from the market and spends the borrowed sums, the aggregate expenditure is most likely to increase because during depression the investment opportunities in the market are not much and savings of the market get spent through the government. However, the government's expenditure policy is more effective when the extra purchasing power goes into the hands of those people who have a high marginal propensity to consume. Various social security measures like unemployment relief, old age pensions, and so on are, therefore, very helpful in raising the total demand in the market. Productive activity picks up faster and the existing unutilized capacity is put to use if the government expenditure is directed primarily towards consumption and welfare type disbursements without creating additional productive capacity. In that case, the economy would be able to recover from the depression through the multiplier process.

Check Your Progress

1. What is fiscal policy?
2. State how an increase in the total expenditure of government tends to expand the aggregate economic activity in the economy.
3. Why is the field of fiscal policy not clearly demarcated from those of monetary policy and debt management?
4. What did the development of the concepts of 'multiplier' and 'accelerator' enable the economists to visualize?

8.3 ANTI/CONTRA-CYCLICAL FISCAL POLICY

If fiscal policy has to be employed as an instrument of economic stability, it has to be contra-cyclical in nature. The government can contribute to raise the levels of employment,

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income and economic activity by spending more than its current income. Conversely, it will exert a contractionary effect on employment, income and economic activity by collecting more revenue from the people in the form of taxes than it spends. To use its fiscal policy as an instrument of economic stability, the government should carefully regulate both the time and size of its spending and tax revenue operations. A deficit in the budget in inflation will further aggravate inflation and will, therefore, act as a destabilizing factor rather than act as a stabilizing factor in the economy. But the same policy if enforced in recession will promote economic stability in initiating recovery. Similarly, surplus budgeting in recession by aggravating the fall in the level of aggregate demand will convert a mild recession into a great depression. The same policy, however, if pursued during boom will promote economic stability in the system.

If fiscal policy is to be used as an instrument of economic stability, it is essential to abandon the current practice of balancing the budget annually in the face of fluctuating employment and income. The spending and revenue programmes of the government, which constitute the budget, must be flexible. Rather than balance its budget annually, the government should balance the budget over the period of a trade cycle. A fiscal policy that would contribute most to the economic stability must be such as to produce a surplus of revenue over spending in prosperity with comparatively full employment and a surplus of spending over revenue in a period of depression with abnormally high unemployment. This means that the annual budget should be kept unbalanced. A balanced budget would only be desirable when the economy was operating at full employment level and showed no tendency either to expand or to contract. The fiscal policy of the government should have a feature of automatic stability so that needless delays pending the passage of new appropriation or tax laws may not hamper the smooth operation of fiscal policy. It should have built-in stabilizers which will function automatically and shall remove delays in the execution of the fiscal policy in the absence of built-in stabilizers. The Committee on Economic Development stated the principle of guidance for incorporating the built-in stabilizers in the fiscal policy in the following words:

'Set tax rates to balance the budget and provide a surplus for debt retirement at an agreed high level of employment and national income. Having set these rates, leave them alone unless there is some major change in national policy or condition of national life.'

The merit of this policy is not difficult to see. With the fall in national income, government revenue falls relatively to government outlays leading to deficit budget and *vice versa.* As a built-in stabilizer, the fiscal policy cushion's the fluctuations by withdrawing more purchasing power from the economy than it injects in the economy during a boom and *vice versa.*

8.3.1 Automatic and Discretionary Changes

It may be inferred from the relationship between public expenditure and *GNP* and between taxation and *GNP* that a countercyclical fiscal policy would require increase in public expenditure and reduction in taxation to fight depression, and reduction in public expenditure and increase in taxation to control inflation. In other words, fighting depression would require a *deficit budgeting* and controlling inflation requires *surplus budgeting.*

Some of the budgetary changes are *automatic* and some are *discretionary*. The automatic budgetary adjustment takes place only when fiscal policy has built-in-flexibility. The automatic budget-ary changes should follow the change in *GNP*. Built-in-flexibility in the fiscal policy implies that as *GNP* falls, both income and consumption decline.

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Consequently, the revenue from both direct and indirect taxes declines. Government's planned and commit-ted expenditure remaining the same, public expenditure exceeds its revenue, and the budget automatically runs into deficit. This effect is more quick and powerful in the countries which provide unemployment allowances and other relief benefits.

When *GNP* increases, tax base expands and tax-revenue increases. Expenditure level remaining the same, the budget automatically shows surplus. The deficit and surplus resulting from fluctuation in *GNP* work as automatic stabilizers of the economy. It is, however, generally believed that automatic stabilizers prove to be adequate and serve useful purpose only for short-term fluctuations in the economy. Automatic stabilizers prove generally inadequate to control the economic fluctuations of larger amplitude. Under such condi-tions, discretionary changes in budget become necessary.

The *discretionary changes* in the budget refer to the changes in the tax-structure, and in the level and pattern of public expenditure by the government on its own discretion. Discretionary changes include change in tax-rate structure, abolition of existing taxes, imposition of new taxes, increasing and decreasing the public expenditure, changing the pattern of public expenditure, etc. Discretionary changes are so designed as to arrest the inflationary and defla-tionary trends in the economy and to mitigate the destabilizing forces, such as increase or decrease in aggregate demand.

Problems in Formulating Counter-Cyclical Fiscal Policy

Formulating a counter-cyclical fiscal policy is not an easy task. It involves certain complications, which should be borne in mind while devising the tax and expenditure policy to stabilize the economy. Some complications have been pointed out by Eckstein as follows.

- All expenditures do not have the same multiplier effect. For example, transfer payments by the government do not create a demand for goods and services. Some kinds of public expenditures (e.g., those on free education and hospital facili-ties) replace private expenditure.
- Not all tax-changes have the same multiplier effect. For example, taxes paid by the upper income groups have lower multiplier effect than those paid by lower income groups, because of differences in their *mpc*. The multiplier effects of indirect taxes are not clearly known.
- Deficit financing through public borrowing may reduce private investment through crowding-out effect. This kind of deficit financing reduces the multiplier effect.
- There are practical difficulties with regard to the assessment of time-lags and accuracy of forecasts. There is uncertainty with regard to effectiveness of fiscal policy.

8.3.2 Crowding-out Effect

When deficit spending by government is financed by creation of additional purchasing power in some form or other (including borrowing from the central bank of the country) and inflationary price rise takes place, real resources move out of the hands of the private sector and shift in the hands of the government. If this resource movement is substantial, the private sector may be 'crowded out' of the investment market, which means to say that it may not be able to sustain the level of its investment activity. This phenomenon of crowding out is strengthened by the fact that overall reduction of

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resources for the private sector raises interest rates as well. Incentive to save more and reduce consumption expenditure by the private sector (to take advantage of higher interest rates) is counterbalanced, to a certain extent at least, by rising prices and reduced capacity to save. The net result is a downward pressure on investment invest activity by the private sector.

If the government finances its deficit spending only by borrowing, the net result is the same though with some difference in details. Thus, even when all borrowings are from the open market, and there is no inflationary impact of this policy, the very fact that resources get transferred from the private sector to the government spells out the results described above. Interest rates go up on account of reduced resource availability and there is a pressure on the private sector to move out of the investment market.

In the long run, public borrowings inflate budgetary expenditure because of 'debt servicing'. This, in turn, prompts the government to increase taxation or go in for further deficit spending. Thus, the earlier story of crowding out of private sector gets repeated.

8.3.3 Friedman's Crowding-out Analysis

Benjamin Friedman (1978) analyses the financial market aspects of the question whether Federal Government deficits crowd out private investment spending. His model assumes that: monetary policy does not accommodate the increase in the deficit; the economy is operating at less than full capacity (at full employment, additional debt financed government spending induces inflation and thus displaces some private spending); and that higher utilization rates induced by government spending do not have an 'accelerator effect' which would result in an increase in the desired capital stock. Friedman examines two financial market phenomena: transactions crowding-out and portfolio crowding-out.

To the extent that an increase in the fiscal deficit stimulates aggregate demand, it increases the demand for money to finance the larger volume of transactions, which raises interest rates, thus discouraging some private spending. This result is moderated to the extent that the demand for money decreases (the velocity of money increases) in response to the rise in the interest rate—so interest rates rise less—and the extent to which the demand for investment goods is insensitive to the rise in interest rates. Friedman's statistical estimates indicate that, in the short run, transactions crowding-out is minor, and although it increases in the longer run it discourages less than half of the potential fiscal impact of the deficit.

Portfolio adjustments can occur as a result of an increase in the deficit financed by government bonds sold to the public. Friedman's analysis, building on the work of Tobin, examines a model with three assets: money, government bonds and private capital ownership. This model is sufficiently general to yield ambiguous results of the portfolio adjustment effect of a deficit increase on private investment.

The public may respond to the increased volume of bonds in their portfolios by seeking to increase its desired holdings of cash or real capital. Increased demand for real capital tends to reduce the required return on investment, thus promoting real capital accumulation. In contrast, increased demand for more cash holdings tends to raise interest rates on government debt, making investment in real capital less attractive. The outcome depends on whether money or private capital ownership is the closer substitute for government debt. Portfolio crowding-out of private capital formation necessarily follows if investors view government securities and capital as perfect substitutes. Some Keynesian models, such as Blinder and Solow (1973), assume this is the case, but this assumption is

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shown to be neither theoretically nor empirically valid. On the other hand, portfolio crowding-in of private capital formation necessarily follows if an increase in wealth does not increase the demand for cash. But Friedman presents empirical evidence that wealth does influence money demand. Friedman emphasizes that there are no conclusive findings as to whether actual behaviour results in portfolio crowding-out or portfolio crowding-in.

However, Friedman suggests that short- and long-term government securities may have different relative substitutabilities with cash and capital—short-term treasury bills are perhaps more like money, while very long-term treasury bonds are more likely to provide investors with substitutes for long lived capital goods. To the extent this is the case, debt management practices that finance a deficit with very short-term rather than long-term securities would be less likely to crowd-out private capital investment.

8.3.4 Criticism of Crowding-Out

The term 'crowding out' is used loosely in popular discussions to convey the notion of a displacement of private investment by government borrowing at high interest rates. But this notion is misleading and the concept of crowding out is murky.

Because credit is scarce it is rationed by capital markets, and so even if government is totally absent from capital markets, some potential borrower is crowded out at any level of interest rates. More precisely, producers whose expected rate of return on new investment is less than their cost of borrowing to finance this investment, or consumers who delay their purchase rather than pay the cost of borrowing to finance present consumption, will be crowded out. Crowding-out thus refers to the financial market process of allocating limited credit to the users capable of paying higher prices. To the extent that the scarcity of credit is alleviated, for example, by an autonomous increase in savings, room is made for less profitable investment projects (or less desirable consumption expenditures) that would be crowded out if the supply of loanable funds were less abundant.

If the government were just another borrower in the credit market, its role would not be materially different from that of, say, AT&T, which because of the sheer size of its credit demands presumably displaces many small businesses. The unique role of the government in crowding out other potential borrowers does not, however, have to do so much with the size of its claims on the pool of available credit, as it does with (i) the fact that the government borrowing is interest rate insensitive, and (ii) the fact that the government borrows to finance predominantly activities that do not add to future productive capacity. In these two respects the government is indeed different from any other borrower.

The first distinction appears to imply that for a given supply schedule of loanable funds, borrowing by the government raises the interest rate thereby crowding out some marginal borrowers. However, several qualifications deserve mention in discussing this process of financial crowding out. First, if for instance, increased government borrowing finances a corporate tax cut, cash flows internally generated by corporations will increase and demand for credit by these corporations will decrease commensurately. Thus, increased borrowing by the government will coincide with decreased borrowing by the private sector. Second, insofar as the supply of savings expands as the interest rate rises, the amount of credit foregone by potential private borrowers will be smaller than the increase in government borrowing. Third, the concept of financial crowding out does not contain any normative implications; that is, for a given level of government spending

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no general assertion can be made that financial crowding out is more deleterious to the economy than alternative methods of financing this level of government expenditures.

The implications of the second distinction between the government and other borrowers are more clear cut and also more important for proper evaluation of the consequences of government spending on credit markets. Since government spending is, from the standpoint of generating future growth, mainly non-productive, it pre-empts some resources which otherwise would have been used for investment purposes. Even though the lower rate of investment results from interest rate adjustments in the bond market, this result is not essentially a financial phenomenon. The reduction in investment reflects the resource allocation required when increased government expenditure demands compete with private investment and private consumption for limited amounts of labour, capital and other productive inputs. Pre-emption of these productive factors by the government is sometimes labelled real, as distinct from financial, crowding out and its effect on the economy in the medium term is the same independently of whether this pre-emption is financed by borrowing or by taxes. This conclusion may be altered, however, when incentive effects are recognized.

8.4 SUMMARY

In this unit, you have learnt that:

- As an instrument of macroeconomic policy, fiscal policy has been very popular with the modern governments to influence the size and composition of the national product, employment, industrial production, prices, etc., in the economy.
- Government expenditure, tax income and public debt act as important instruments to influence aggregate outlay, employment and prices in the economy. A given change—increase or decrease—in aggregate government expenditure causes a change—increase or decrease—in the aggregate demand thereby increasing or decreasing the factor incomes.
- Taxes levied on the people to finance government expenditure tend to reduce disposable personal and corporate incomes which could have been either spent on consumption or devoted to capital formation through saving. Thus, taxes tend to reduce the aggregate demand and income in the economy.
- As an instrument of macroeconomic policy, the goals of fiscal policy are likely to be different in different countries and in the same country in different situations. For example, while in a developed economy operating either at the full or at near-full employment level the goal of fiscal policy should be the maintenance of full employment while in a developing economy the main concern of fiscal policy has to be the promotion of economic growth with stability and reduction in the economic inequalities.
- Budgetary or fiscal policy comprises steps and measures which the government takes both on the receipts and expenditure sides of its budget, including rules, regulations and procedures relating to them.
- The crux of a good and effective fiscal policy lies in keeping its ingredients like expenditure, loans, transfers, tax revenues, income from property, debt management, and the like in a proper balance so as to achieve the best possible results in terms of the desired economic objectives.

Check Your Progress

5. Fill in the blanks with appropriate words.
   (i) A deficit in the budget in inflation will further aggravate inflation and will, therefore, act as a _____ factor rather than act as a stabilizing factor in the economy.
   (ii) The spending and revenue programmes of the government, which constitute the budget, must be _____.
   (iii) _____ changes are so designed as to arrest the inflationary and deflationary trends in the economy.

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- The problem of stability refers to that of recurring cyclical phases of upward and downward cumulative movement in income, employment, output and prices, etc. in the economy.
- The development of the concepts of 'multiplier' and 'accelerator' and the relationship between the macro variables like investment, income, consumption, and savings enabled the economists to visualize the mechanics of trade cycles and the role which the fiscal policy could play in an economy.
- During a depression, public expenditure should be increased through incurring public investment and enhancing consumption expenditure of the government.
- If fiscal policy has to be employed as an instrument of economic stability, it has to be contra-cyclical in nature. The government can contribute to raise the levels of employment, income and economic activity by spending more than its current income. Conversely, it will exert a contractionary effect on employment, income and economic activity by collecting more revenue from the people in the form of taxes than it spends.
- A deficit in the budget in inflation will further aggravate inflation and will, therefore, act as a destabilizing factor rather than act as a stabilizing factor in the economy. But the same policy if enforced in recession will promote economic stability in initiating recovery.
- If fiscal policy is to be used as an instrument of economic stability, it is essential to abandon the current practice of balancing the budget annually in the face of fluctuating employment and income.
- It may be inferred from the relationship between public expenditure and GNP and between taxation and GNP that a countercyclical fiscal policy would require increase in public expenditure and reduction in taxation to fight depression, and reduction in public expenditure and increase in taxation to control inflation.
- When deficit spending by government is financed by creation of additional purchasing power in some form or other (including borrowing from the central bank of the country) and inflationary price rise takes place, real resources move out of the hands of the private sector and shift in the hands of the government.
- If this resource movement is substantial, the private sector may be 'crowded out' of the investment market, which means to say that it may not be able to sustain the level of its investment activity. This phenomenon of crowding out is strengthened by the fact that overall reduction of resources for the private sector raises interest rates as well.
- In the long run, public borrowings inflate budgetary expenditure because of 'debt servicing'. This, in turn, prompts the government to increase taxation or go in for further deficit spending.
- Benjamin Friedman (1978) analyses the financial market aspects of the question whether Federal Government deficits crowd out private investment spending.
- To the extent that an increase in the fiscal deficit stimulates aggregate demand, it increases the demand for money to finance the larger volume of transactions, which raises interest rates, thus discouraging some private spending.
- The public may respond to the increased volume of bonds in their portfolios by seeking to increase its desired holdings of cash or real capital. Increased demand for real capital tends to reduce the required return on investment, thus promoting real capital accumulation.
- The term 'crowding out' is used loosely in popular discussions to convey the notion of a displacement of private investment by government borrowing at high interest rates. But this notion is misleading and the concept of crowding out is murky.
- Because credit is scarce it is rationed by capital markets, and so even if government is totally absent from capital markets, some potential borrower is crowded out at any level of interest rates. More precisely, producers whose expected rate of return on new investment is less than their cost of borrowing to finance this investment, or consumers who delay their purchase rather than pay the cost of borrowing to finance present consumption, will be crowded out.
- The reduction in investment reflects the resource allocation required when increased government expenditure demands compete with private investment and private consumption for limited amounts of labour, capital and other productive inputs.

8.5 KEY TERMS

- **Fiscal policy:** It refers to the regulation of the level of government spending, taxation and public debt.
- **Problem of stability:** It refers to that of recurring cyclical phases of upward and downward cumulative movement in income, employment, output and prices, etc. in the economy.
- **Discretionary changes in the budget:** It refer to the changes in the tax-structure, and in the level and pattern of public expenditure by the government on its own discretion.

8.6 ANSWERS TO 'CHECK YOUR PROGRESS'

1. By fiscal policy is a policy which affects the important macroeconomic variables—aggregate output, employment, saving, investment, etc., through the budgetary manipulation. Fiscal policy refers to the regulation of the level of government spending, taxation and public debt.
2. Government expenditure incurred on wages and salaries of its employees, interest paid on government debt, social security and old age pension payments, all tend to increase the disposable personal income of people as a consequence of which the aggregate demand for consumer goods increases. Thus, an increase in the total expenditure of government tends to expand the aggregate economic activity in the economy.
3. The field of fiscal policy is not very clearly demarcated from those of monetary policy and debt management because they all make use of several common components but aim at different sets of goals.
4. The development of the concepts of 'multiplier' and 'accelerator' and the relationship between the macro variables like investment, income, consumption,

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and savings enabled the economists to visualize the mechanics of trade cycles and the role which the fiscal policy could play in an economy.

5. (i) destabilizing
   (ii) flexible
   (iii) Discretionary

8.7 QUESTIONS AND EXERCISES

Short-Answer Questions

1. 'Taxes tend to reduce the aggregate demand and income in the economy.' Is the statement true? Give reasons for your answer.
2. 'Overall fiscal policy involves two types of important decisions.' What are the two types of decisions?
3. Where does the crux of a good and effective fiscal policy lie?
4. What gave rise to the principles of compensatory finance and functional finance?
5. How can the economy recover from the depression through the multiplier process?
6. 'If fiscal policy has to be employed as an instrument of economic stability, it has to be contra-cyclical in nature.' Give reasons.
7. 'Some of the budgetary changes are automatic and some are discretionary.' Describe briefly.
8. Write a note on the crowding out effect and its criticism.

Long-Answer Questions

1. Discuss fiscal policy as an instrument of macroeconomic policy.
2. 'Government expenditure, tax income and public debt act as important instruments to influence aggregate outlay, employment and prices in the economy.' Explain.
3. Assess the usefulness of fiscal policy and the roles of multiplier and accelerator.
4. Critically analyse the contra-cyclical fiscal policy.
5. What are the automatic and discretionary changes in the fiscal policy? What are the problems associated with the formulation of counter-cyclical fiscal policy?
6. Explain the crowding out effect in detail.

8.8 FURTHER READING

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UNIT 9 FISCAL POLICY IN AN OPEN ECONOMY

Structure

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  9.2.1 Exchange Rate and Monetary Policy
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9.0 INTRODUCTION

The previous unit dealt with fiscal policy in a closed economy, this unit will deal with fiscal policy in an open economy.

Compared to a closed economy, the open nature of the economy has distinct implications for the transmission mechanism of demand changes—as private consumption reacting to a tax change or government spending reacting to a tougher debt target. In the typical closed-economy macroeconomic model, a demand shock raises the interest rate, which in turn induces higher work effort and output by making current leisure more expensive. As stressed by Barro and King (1984), this interest rate movement crowds out the other sources of demand, preventing the positive co-movement of private consumption, investment and public spending as consequence of a shock to one of them.

Given heightened concerns about debt sustainability, many countries are implementing ambitious fiscal consolidation plans in which government spending reductions often play a major role. The usual presumption is that the effects of government spending cuts on output are smaller when a country conducts an independent monetary policy (IMP) than when constrained by membership in a currency union, reflecting that interest rate cuts and currency depreciation appear to dampen the adverse impact on aggregate demand. While econometric analysis (e.g. Ilzetzki, Mendoza and Vegh, 2010) supports this view, it is unclear whether an IMP retains its comparative advantage if constrained by the zero lower bound, especially in light of 'closed economy' analysis showing how a liquidity trap can amplify the government spending multiplier. This unit will deal with the relation between fiscal and monetary policy and exchange rate; deficit spending and its effect on exchange rate, price, export and import; and changes in tax rate and its effect on the movement of foreign capital.

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9.1 UNIT OBJECTIVES

After going through this unit, you will be able to:

- Assess the relation between fiscal and monetary policy and exchange rate
- Discuss the role played by the central bankers in the field of budgetary policies
- Explain the effect of deficit spending on prices of financial assets and interest rates
- Describe the effects of deficits on exchange rate, imports and exports
- Analyse the changes in tax rates and its effects on the movement of foreign capital

9.2 RELATION BETWEEN FISCAL, MONETARY AND EXCHANGE RATE POLICIES

Fiscal policy generally refers to the government's choice regarding the use of taxation and government spending to regulate the aggregate level of economic activity. In the same vein, the use of fiscal policy entails changes in the level or composition of government spending or taxation, and hence in the government's financial position. Key variables that policy makers focus on include government deficits and debt, as well as tax and expenditure levels.

Monetary policy refers to the central bank's control of the availability of credit in the economy to achieve the broad objectives of economic policy. Control can be exerted through the monetary system by operating on such aggregates as the money supply, the level and structure of interest rates, and other conditions affecting credit in the economy. The most important objective of central bankers is price stability, but there can be others such as promoting economic development and growth, exchange rate stability and safeguarding the balance of external payments, and maintaining financial stability. Key variables in this policy area include interest rates, money and credit supply, and the exchange rate.

While monetary and fiscal policy are implemented by two different bodies, these policies are far from independent. A change in one will influence the effectiveness of the other and thereby the overall impact of any policy change. Tensions can arise between what each will do to help smooth economic cycles and achieve macroeconomic stability and growth. That is why it is crucial to pursue a consistent monetary-fiscal policy mix and coordinate these (and other) policies as much as possible to avoid tensions or inconsistencies. This policy mix is a key component of the IMF's macroeconomic policy advice and of IMF-supported economic adjustment programmes, together with external, structural, and financial sector policies. In practice, imbalances in the budgetary position have in many cases proven to be a key element in both macroeconomic problems and their solution. For this reason, the IMF was sometimes jokingly said to stand for 'It's Mostly Fiscal', although in reality the macroeconomic problems countries are faced with generally consist of a broader mix of imbalances and require a broader set of policy responses.

How does fiscal policy affect monetary policy and thus the central banks? There are both direct and indirect channels. Starting with the first category, there are a number of ways in which fiscal policy may impinge on monetary policy. First and foremost, an

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expansionary fiscal policy may result in excessive fiscal deficits, which may create a strong temptation for governments to resort to the printing press (i.e., monetary financing by the central bank) to finance the deficits. An expansionary fiscal policy, then, leads to an expansionary monetary policy, fuelling inflationary pressures, causing a possible real appreciation of the currency and hence balance of payments difficulties, potentially even resulting in a currency (and/or banking) crisis.

But even if governments finance their deficits in a non-monetary way, that is, through the markets, there may be cause for concern, specifically about crowding out: If governments take up (too) much funding in the markets, the result may be too little or too expensive credit for the private sector. This may harm economic development and growth, which would certainly be a concern of central bankers. On the external side, there is the risk that too much dependence on foreign funding of domestic debt results in exchange rate and/or balance-of-payments risks, which again would be worrying to central banks.

There is another, more direct channel of fiscal policy affecting central bankers and that is the impact of indirect taxes on the price level and thus on inflation. If governments feel forced to resort to substantial increases in indirect taxes—sales taxes, value added taxes—rather than taxes on various forms of income, this will have a direct impact on prices. The key concern here is that a one-off increase leads to a wage-price spiral and therefore permanent (higher) inflation and inflationary expectations.

In addition to these direct relationships between fiscal and monetary policy, there is the more indirect channel through expectations. Perceptions and expectations of large and on-going budget deficits and resulting large borrowing requirements may trigger a lack of confidence in the economic prospects. This may become a risk to the stability in financial markets. Such a lack of confidence in the sustainability of the financial position of the government may become a potential destabilizing factor on bond and foreign exchange markets, eventually even leading to the collapse of the monetary regime.

Impact of Fiscal Expansion

Conceivably, expansionary fiscal policy may at some stage become ineffective as a means to stimulate demand and, similarly, fiscal contractions may turn out to be expansionary. When economic agents realize that the government is borrowing too much for its own good, they will conclude that this can only lead to higher taxation levels in the future, and they may decide to compensate for that already now by saving more and consuming less. This so-called 'Ricardian equivalence' means that the financial behaviour of economic agents—on which central banks base their monetary policy decisions—depends on their perception of fiscal sustainability. It is, therefore, another example of how fiscal policy can (indirectly) affect the effectiveness of monetary policy.

It should be noted that the impact of fiscal policy on central bank objectives is not automatically avoided when the central bank is independent. Even when the central bank has independence, and hence is not submitted to the fiscal needs of the government, the need to offset the impact of expansionary fiscal policy on aggregate demand and inflation in the economy could prompt the central bank to tighten monetary policy, by raising interest rates or reducing credit in the financial system. The resulting high interest rates could depress economic activity, attract short-term and easily reversible capital inflows—thereby adding to inflation and appreciation pressures on the currency, and eventually damaging macroeconomic and financial stability.

Severe budgetary problems may even lead to crises. There have been a number of examples of such severe tensions in the past, in which large and growing fiscal

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deficits—in the absence of needed public sector reforms—led to high real interest rates. This intensified the government's debt-servicing costs, causing a build-up of short-term and foreign currency-linked public debt, thus increasing the sensitivity to interest rate, exchange rate, and rollover risks, which materialized as foreign capital inflows that had helped to finance the debt were suddenly reversed. Examples of this set of circumstances were apparent in the run up to the crises in Turkey (1994, 2001), Mexico (1994), Russia (1998), Brazil (1999), and Argentina (2001).

Even in countries where such extreme conditions did not materialize, the sustainability of the monetary regimes can be challenged by fiscal policies that are too accommodating. This has happened in the past, for example, Israel and Poland where expansionary fiscal policy caused an overheating of the economy, reviving inflationary pressures and worsening the current account. High interest rates—required to contain inflation—attracted capital inflows that complicated the implementation of monetary policy. Sterilization of capital inflows to keep inflation under check became increasingly difficult and costly for the central bank.

One of the channels of fiscal policy constraining the conduct of monetary policy include the impact of fiscal deficits on interest rates and interest spreads, particularly, for emerging markets. While the conventional theory argued that higher fiscal deficits raise intermediate and long-term interest rates, empirical studies revealed mixed results. Some studies established the impact of fiscal variables on country premiums, while other showed that the fiscal policy could constrain monetary policy through its impact on exchange rates. Under a high capital mobility and flexible exchange rate situation, deterioration in the fiscal situation could lead to a temporary appreciation of the exchange rate. In contrast, under low capital mobility, the exchange rate may depreciate, following higher imports and widening of the current account deficit on account of fiscal expansion (Zoli, 2005).

Financial Markets

Another area where monetary and fiscal policy come together is the development of financial markets. Both finance ministries and central banks have a strong interest in financial market development because: (i) it is indispensable for economic development and growth; (ii) it facilitates funding of deficits and debt; and (iii) it enables market-based operations by central banks. As part of financial market development, it is important for the authorities to engage in a discussion with (potential) market participants on market practices, conditions, and possible impediments.

The relationship between monetary and fiscal policy depends strongly on the development of financial markets. The transition from a rudimentary financial system to a fully developed system can be divided into four stages. In the undeveloped stage, there is no government debt outside the central bank, and fiscal deficits are essentially accommodated by money creation. In the next stage, marketable securities are introduced, but there is no secondary market and interest rates are inflexible. In the transitional stage, a secondary market for government debt instruments exists, interest rates have become more flexible, and central banks conduct more active and independent liquidity management. In the final developed stage, medium-term debt instruments are offered through auctions, interest rates are fully flexible, and central banks control liquidity in the markets through indirect and market-based instruments (e.g., repos). In particular, in the latter two stages, good coordination between the government's financial management (issuance of treasury bills, etc.) and the central bank's monetary policy operations is required.

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The Role of Central Bankers

What can central banks do about fiscal policy? First of all, coordination is very important. Even if central banks act on the short end and governments on the long end of the market, their financial activities should be coordinated. Second, communication is key as well. Central bankers expressing views on budgetary policies have become regular features in the international financial press, often in the context of presentations in Parliament and at presentation of reports on the economy. Of course, timing and frequency are important elements, and governors are not expected to issue statements each day. The effectiveness of the message will be affected by the stature and image of the governor and his or her institution.

In their messages, central bankers tend to focus on the medium-term sustainability of fiscal policy more than the short-term policies. This includes a focus on a solid and realistic budgetary process that (i) does not require frequent adjustments during the year (which tend to make markets nervous); (ii) is based on 'conservative' macroeconomic assumptions in particular with regard to economic growth (a key variable in any budget), but also with respect to interest rates, exchange rates, and exogenous variables such as energy prices; (iii) does not include too many one-off measures and open-ended commitments; and (iv) does not imply too many and too frequent fundamental changes in the tax regime (which might create uncertainty and inefficiencies). At the same time, they will focus on the bottom-line (i.e., deficits and debt) rather than on the specific line-items, to avoid being dragged into a very specific political debate. Last but not least, there appears to be a certain tendency among central bankers to 'lean against the wind', that is, to not to be too optimistic when things go well, and not too pessimistic when things take a turn for the worse, but rather to be realistic.

Medium-term Fiscal Frameworks

In recent years, an increasing number of countries have adopted formal fiscal rules. Central bankers are generally among the proponents of such rules, which can help fiscal authorities better withstand pressures for higher spending and slower fiscal consolidation. The rules, which are often focused on targets for deficits and debt, or on a multiyear spending timeline, are to be embedded in a medium-term fiscal framework based on balanced assumptions for macroeconomic developments.

Fiscal rules can be particularly helpful in cases in which there is no unique counterpart for the central bank, as is the case, for example, in the euro-zone, which is also faced with the issue of a new currency that has a limited track record. In order to enforce fiscal discipline and to ensure that national fiscal policies support the stability-oriented monetary policies by the European Central Bank (ECB), member countries adopted the Stability and Growth Pact (SGP) as a tool for fiscal policy coordination. The rules of the SGP aim at fiscal sustainability by strengthening fiscal discipline through requirements for budget deficits and debts and medium-term fiscal policy objectives.

Transparency

Finally, incorporating transparency into monetary and fiscal policy is key to their effectiveness. In this context, the IMF has developed two important international standards: the Code of Good Practices on Transparency in Monetary and Financial Policies for central banks and supervisors, and the Code of Good Practices on Fiscal Transparency for governments. These codes are important instruments to support clarity in discussions on the necessary coordination between monetary and fiscal policy.

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9.2.1 Exchange Rate and Monetary Policy

The exchange rate plays an important part in considerations of monetary policy in all countries. More generally, the exchange rate serves to buffer the economy from external shocks, such that monetary policy can be directed towards achieving domestic price stability and growth.

Under inflation targeting, monetary policy no longer targets any particular level of the exchange rate. Various measures suggest that exchange rate volatility has been higher in the post-float period. However, exchange rate flexibility, together with a number of other economic reforms—including in product and labour markets as well as reforms to the policy frameworks for both fiscal and monetary policy—has likely contributed to a decline in output volatility. In particular, exchange rate fluctuations have played a particularly important role in smoothing the influence of terms of trade shocks.

Both through counterbalancing the influence of external shocks, and more directly, through its influence on domestic incomes and therefore demand, the exchange rate has been an important influence on inflation. Under the previous fixed exchange rate regimes, the Australian economy 'imported' inflation from the country (or countries) to which the exchange rate was pegged. However, the floating of the exchange rate meant that changes in world prices no longer had a direct effect on domestic prices: Not only did it break the mechanical link between domestic and foreign prices, but it meant that the Reserve Bank was now able to implement independent monetary policy. Instead, under the floating exchange rate regime, movements in the exchange rate have a direct influence on inflation through changes in the price of tradable goods and services—a process commonly referred to as 'exchange rate pass-through'. The extent of this influence has changed since the float, and since the introduction of inflation targeting. In particular, exchange rate pass-through has become more protracted in aggregate, but is faster and larger for manufactured goods, which are often imported.

9.3 DEFICIT SPENDING AND ITS EFFECT ON MONEY STOCK, EXCHANGE RATE, EXPORT, IMPORT AND CAPITAL MOVEMENT

Deficit spending is the amount by which spending exceeds revenue over a particular period of time, also called simply deficit, or fiscal deficit, or budget deficit; the opposite of budget surplus. The term may be applied to the budget of a government, private company, or individual.

Check Your Progress

1. Name the key variables of the monetary policy.
2. What does an expansionary fiscal policy lead to?
3. State the important part played by the exchange rate in considerations of monetary policy in all countries.

9.3.1 Effect on Export and Import

Residents of a country can spend more than the value of their production only by absorbing another economy's goods, that is, through a current account deficit in the balance of payments. Thus, if a government increases its spending, without taxes or other measures to restrain private sector demand, imports are liable to grow relative to exports of goods and services, and the current account tends to deteriorate. A simple accounting relationship can be established between fiscal and external current account balances. Gross national income (GNI) can be defined in terms of expenditure components or income uses (Equation 9.1).

$$GNI = Cp + Ip + G + X - M = Cp + Sp + T + R \quad \ldots(9.1)$$

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where,

Cp = Private consumption

Ip = Private investment

G = Government spending

X = Exports of goods and services

M = Imports of goods and services

Sp = Private savings

T = Government revenue

R = Net current transfers to abroad

Rearranging,

$$(Ip - Sp) + (G - T) = (M - X + R). \quad \ldots(9.2)$$

Equation 9.2 shows the external current account balance as the counterpart of the sum of the private sector's investment-savings balance and the fiscal deficit. Thus, a fiscal deficit must be matched by a domestic private sector that saves more than it invests and/or by an external current account deficit.

Considerable caution is required in moving from the above accounting identity to the assumption that a simple causal relationship exists between fiscal and external deficits. A widening of the fiscal deficit may be reflected in an increase in the current account deficit, but it could also lead to a reduction in the private sector investment-savings balance through a crowding out of private investment (for example, when public and private investment are close substitutes, when the availability of credit to the private sector to finance investment is rationed, or when higher interest rates lower private investment). Similarly, an increase in the fiscal deficit may lead to a rise in the private savings rate, as individuals recognize that future tax burdens may be higher as a consequence of the need to service the prospective growth in public debt. Thus, the extent of linkage between fiscal and external deficits depends on any impact of fiscal policy on private sector savings and investment behaviour; moreover, fiscal deficits may respond to, as well as influence, external balances.

9.3.2 Effect on Money and Capital

Although the enactment of the Fiscal Responsibility and Budget Management (FRBM) Act, 2003 has prohibited the Reserve Bank from participating in primary issuances of government securities, it is evident that large fiscal deficits can potentially lead to some form of monetization of debt. This is more important if large borrowings crowd out private credit and compel monetary authorities to provide greater liquidity through open market purchase of government bonds. This attenuates monetary policy efficacy.

India has made rapid strides towards phasing out the monetization of debt. For long, government deficits were automatically monetized through the issuance of ad hoc treasury bills. These bills of 91-day maturity were non-marketable instruments that were automatically issued to the Reserve Bank to replenish the central government's cash balances with it to meet the government deficit. This problem of automatic monetization was in addition to the financial repression caused by issuances of 91-day treasury bills 'on tap' (at a fixed discount of 4.6 per cent per annum), which were taken up mainly by banks for short-term investment or to comply with the requirements of maintaining the Statutory Liquidity Ratio (SLR). Financing government expenditure by issuing ad hoc

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treasury bills to the Reserve Bank caused an increase in the reserve money. In addition, the Reserve Bank also rediscounted the tap treasury bills subscribed to by the banks, thus adding to the monetization.

Fiscal dominance of monetary policy goes beyond the monetization issue. It occurs in several forms. Large fiscal deficits have inflationary consequences even when they are not financed by the central bank. For instance, suppressed inflation remains a significant drag on inflation management even after the government has taken some steps to deregulate administered prices in the energy sector. At the first stage, suppressed inflation feeds into inflation as the subsidies necessitated by the price rigidity widen the fiscal deficit. At the second stage, as subsidies become unsustainable, they sooner or later necessitate large discrete price adjustment that feeds into inflation expectations. At the current juncture, if prices are adjusted in one go to remove total under-recovery of the oil marketing companies and prices of coal and electricity are adjusted upwards by a moderate 10 per cent each, the direct impact would increase wholesale price index (WPI) by 4 per cent. This suggests the persistence of fiscal dominance of monetary policy. In terms of the Fiscal Theory of Price Level (FTPL), fiscal dominance occurs in a weak or a strong form. In the weak form, fiscal dominance occurs when money growth rises to accommodate fiscal deficit and so exerts upward pressure on inflation. In the strong form, even if the level of money supply does not change in response to the fiscal gap, the latter independently raises the level of inflation because of its impact through aggregate demand. The weak form suggests that a central bank cannot target inflation because it cannot control money supply under the fiscal dominance. The strong form implies that inflation is not necessarily a monetary phenomenon and fiscal policy instead drives inflation.

9.3.3 Effect on Inflation

Inflation is defined as a sustained increase in the general level of prices for goods and services. It is measured as an annual percentage increase. There also is a large empirical literature on the link between fiscal policies and inflation in terms of both the short-term and long-term effects (Rother, 2004). The impact of high fiscal deficits on inflation is seen from two different angles. An increase in fiscal deficit would imply enhanced government spending, which could lead to an increase in aggregate demand and this could turn out to be inflationary if the economy is operating at or above potential level of output. Fiscal expansion, however, may not raise inflation in the short-run if the economic growth is below potential. It has been argued that the unprecedented fiscal stimulus that was used in India during the global economic crisis had no immediate impact on inflation as it primarily worked as a tool to partially offset the deceleration in consumption and investment demand (Reserve Bank Annual Report, 2009-10).

The short-term impact of the fiscal deficit on inflation could also depend on the mix of policies that the government plans to undertake for macroeconomic management. If the fiscal deficit increase is on account of a decrease in indirect taxes, like the reduction in excise duty for most manufactured products in India in the period immediately after the global crisis, this could have a dampening impact on final prices. Similarly, an increase in generic subsidies could keep prices below market clearing prices, thus making inflation suppressed in the short-run. Subsidies in the form of direct cash transfers to final consumers, on the other hand, could be inflationary in the short-run as increased demand may push up prices. The impact of a lower fiscal deficit on short-term inflation could also vary depending on how the reduction in deficit is achieved. If an increase in indirect taxes is used as a tool to reduce the fiscal deficit, final prices could go up in the short-run. Reduction in generic subsidies could raise short-term inflation but would have a favourable impact on inflation in the medium-term.

Persistent fiscal deficits would sooner or later lead to the creation of money, which would have inflationary consequences. Sargent and Wallace (1981) argue that under conditions of fiscal dominance, inflation could turn out to be more of a fiscal problem. Empirical work exploring the link between fiscal dominance regimes and inflation has shown that governments often resorted to seigniorage (or inflation tax) during times of fiscal stress, which had inflationary consequences.

Studies that look at long-term trends try to establish to what extent large and persistent deficit levels have an impact on inflation. Short-term studies, on the other hand, focus on the impact of changes in fiscal policies, i.e., the impact of fiscal shocks on inflation. More recent theoretical developments based on the 'FTPL' suggest that medium-term price stability not only requires appropriate monetary policy, but also appropriate fiscal policy. This theory considers price level as the crucial adjustment variable to ensure the fulfilment of the government's inter-temporal budget constraint. This constraint equates, in real terms, the government's current liabilities to the net present value of government revenues, i.e., future primary surpluses and revenues from money creation. Under the condition that Ricardian equivalence does not hold and with a strongly committed and independent central bank, imbalances in the inter-temporal budget constraint need to be adjusted through shifts in the price level.

9.3.4 Effect on Exchange Rates

In an elementary Keynesian model, the exchange rate is tacitly determined by net exports. These net exports in turn are governed by the income tendency to import abroad and in the home country. When the capital account is not indicated in such a model, there is an expansion of aggregate demand with an increase in the government deficit. This deteriorates the trade equilibrium and results into a decrease of the national currency for a given domestic tendency to import. But since in this model an increase in the deficit also results in an increase in the interest rate, an advanced interest rate is allied with a weaker, not a stronger, currency.

The Keynesian model is different from other widely held notions especially in spheres related to finance—the relationship between exchange and interest rates and also between government deficits and exchange rates. These views that are different from that of Keynes is that derived from monetarist models of exchange rate determination. In the elementary monetarist model, the exchange rate relies on the proportion of money supplies of two different currencies per unit of production in the corresponding countries. Hence, the exchange rate is significantly a monetary phenomenon. In case where the money supplies are kept consistent and in any one country the fiscal growth invigorates the aggregate demand or incentives encourage higher aggregate supply, then the money supply per unit of production is brought down in this country and its currency would escalate. A decrease in the money supply in relation to the production can be interpreted as a current or expected reduction of prices, including the prices of exportables and import-competing goods. By enhancing the competitiveness of the country, it should enhance the trade balance through reduction in prices and would also result into a strengthening of the currency—just as in a Keynesian model. On the other hand, growth of production in conjunction with a non-accommodating monetary policy may be deduced as a liquidity squeeze causing higher interest rates that would encourage capital inflows from abroad and result in a currency rise.

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Therefore, the monetarist model and analysis may result in a current (or trade) surplus and a capital account surplus. These results are discordant or we can say unsustainable over a longer period of time, since it is only through a capital account deficit that a current or trade account surplus can be financed. Furthermore, the monetarist model as against the Keynesian model, neglects the income effects on trade flows which is the focal point of the Keynesian model. When the assessment of the fiscal expansion combines these income effects in an elementary Keynesian model with a reduction in price and increase in the interest rate rooted in the monetarist models, the consequence is abstruse. Here, the income effects would have an inclination towards the worsening of the trade balance and also weaken the currency, the price effects would have an inclination to enhance the trade balance and thus strengthen the currency. The interest rate effects would tend to enhance the capital account and thus reinforce the currency even further.

The real effect of a fiscal expansion would then rely on the effectiveness of exchange rate responses to these effects. There are no dependable pragmatic evidence to back the argument that large government budget deficits result in an appreciation of the country's currency. Deficits tend to rise during periods of economic contraction and fall during expansion.

9.4 CHANGES IN TAX RATES AND ITS EFFECT ON THE MOVEMENT OF FOREIGN CAPITAL

In today's world, capital flow is becoming increasingly mobile and in such an environment it is difficult to implement taxation of capital.

With the internationalization of the financial market, there has taken place a higher and ever growing interdependence amongst the economies of the world. Specifically, it is possible that large international capital flow takes place because of a policy which has only affected the domestic savings-investment balances.

Gradually, the policymakers have recognized that the macroeconomic policies that they work with might be producing very important and major ramifications internationally. Rules related to tax and more so the ones which relate to taxation of capital income have the potential to powerfully affect all savings-investment balances and, thus, they can affect both the external current accounts and the international capital flows. Furthermore, with financial markets now being integrated, tax rules have become even more powerful in having an effect on the global allocation of both savings and investment, and in doing so they potentially modify the worldwide allocation of resources. Hence, now that the capital markets of the major industrial countries have become rather much integrated, if in one's country there is change in the structure of capital income taxes, it can lead to rather prominent implications for other countries' global efficiencies and even international capital flow. Due to all these reasons, there arises a prominent issue of cooperation and surveillance in not a domestic but an international perspective. Moreover, besides some exceptions of late, not much attention has been given to the probable international implications of domestic tax rules.

Governments of nearly every nation would like to have their country appear lucrative for foreign direct investment (FDI). Such investment is capable of increasing employment and growth, introducing new technologies, generating new jobs, to name a few advantages. This will lead to a rise in the domestic income which gets shared with

Check Your Progress

4. Define deficit spending.
5. What is inflation? How is it measured?
6. State one difference between the monetarist and the Keynesian model.

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the government via taxation of wages and profits of foreign-owned companies, and probably certain taxes that are levied on business like a property tax.

There can be a positive effect of the FDI on the domestic income due to the various spillover effects like new technology being introduced and human capital being enhanced with rise in skills. In the light of such potential benefits, there is a continuous re-examination of the country's tax rules by the policymakers to ensure that they remain attractive for inbound investment. However, there are various complex issues that policymakers have to deal with. There are several questions that have to be addressed: To what extent is FDI sensitive to taxation? In what way should tax planning be factored in? Hence, policy considerations are key guiding factors for taxation on inbound and outbound investment.

Residing at the core of the question of what is considered to be the correct level of a host country's corporate tax burden lies the question of how FDI will react to taxation. Research that has considered cross-border flows of FDI has shown that at an average there is a 3.7 per cent decrease in FDI for every 1 percentage point increase in the tax rate on FDI. The actual figure has been seen by different studies to be different and the range for the figure is 0 per cent to 5 per cent. The variation is possibly due to the differences between the countries and the industries that were part of the studies, or possibly it would be the time periods under consideration.

Studies conducted in recent times have shown that there is an increasing sensitivity of foreign capital to changes in taxation. This proves the rising mobility of capital with the removal of non-tax barriers to FDI. Estimates of this nature could be employed for the purpose of assessing the long-run effect of corporate tax reform on FDI. To know the response given by the FDI to tax reforms, one has to know how FDI decisions make use of the tax factor for their decisions. Also, it is important to know how investors make use of tax rates.

Furthermore, the FDI response to reforms in tax will never be uniform and is dependent on several factors which are not easy to measure and account for.

Research conducted in recent years has shown that the sensitivity of FDI towards taxation is dependent on the host country and the mobility of business activities underlying the tax base. Specifically, in cases where companies gain the benefit of locating production in large markets for trade cost reduction, like cost of transportation, there will be some amount of inertia as far as the firm's location choice is concerned. There is benefit for the host country and some amount of capita fixity implies that to some extent taxing of profits will be possible without investment getting discouraged.

Furthermore, even according to the new explanatory models, there is a fall in the optimal tax rate on business when trade costs fall and there is greater mobility of capital. Such a view shows consistency with the observation that several nations place a lower tax burden on more mobile business activities like film production, shipping, or head-office activities.

Majority of the research on how tax reforms affect FDI have not considered the tax-planning strategies that investors employ for lowering their tax burden.

In the current global environment, tax competition for FDI is a real thing. It is a routine task for investors to make comparisons of tax burdens between countries that are similar as far as market size and location are concerned. It is suggested that the importance of tax as a consideration will increase when it comes to selecting a location for investment. It is now widely recognized that there is a rise in international tax

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competition, and that which was at one time seen to be competitive tax burden on business in a given host country is no more the same, post the various rounds of tax rate reductions in other countries. Nevertheless, not always can tax reduction pull in FDI. It has been seen that several Organization for Economic Cooperation and Development (OECD) countries that impose high effective tax rates in relation to other nations have succeeded in pulling in FDI. The reason for this stems from the market size and other attributes offered by the host country in attracting FDI as well as the profits arising from location that are taxed by the governments. If a country's FDI environment is unattractive and weak, even low taxes will not attract FDI. It has to be understood that in attracting foreign capital, one part is played by taxation and the other players are infrastructure, market access, conditions for investment, to name a few. Taxes, besides corporate income tax, also play an important role in attracting or repelling foreign capital; some of these are seriously considered during decision making energy taxes, payroll taxes and non-profit-related business taxes. Capital investors also consider the friendliness or otherwise the tax administration for business in the region they want to invest, such as the consistency, predictability, certainty and timeliness in tax rules' application, and often they play an important role similar to effective tax rate.

The tax burden for outbound investment is also a matter of concern. For some nations, neutrality of tax between outbound and domestic investment (both having equal tax burden) is an important aspect of planning. This is a core principle of the system of 'dividend credit' which means the taxation of foreign profits at domestic rates with a tax credit for foreign taxes is already paid on foreign profit.

Some governments reduce the rate of statutory corporate income tax since it is a simple method and is quick to observe. Investors find it directly relevant when they are looking for pure economic profits. It enhances tax efficiency when implemented in combination with reforms for a broader tax base and limits tax avoidance incentives.

Therefore, governments instead of reducing general tax provisions' burden, pointed out target tax relief to specific activity sectors for encouraging investment at lower foreign revenue costs. Some view the targeting of mobile activities as an attractive option. While there are nations that target certain activities based on their national industrial policy, there are others that target tax relief in case of market failure.

The treatment of tax for outbound FDI is also a concern for governments. Decisions that favour or waive off outbound FDI will cause raised mobility of capital and business calls for more lenient home country treatment.

Attempts are being made by governments to improve their business environment, providing improved tax administration through greater certainty and transparency in taxation. Advance ruling procedures have been put into effect by several countries so that tax authorities provide advance response to questions regarding the tax status of specific types of investment. For the treatment of cross-border investment, procedures for mutual agreement and tax treaties are key factors to stability and certainty.

Therefore, it can be expected to view further testing of the limits of tax competition, with greater decrease in corporate tax burden on inbound investment when viewed by policy-makers as unnecessary to attract investment, owing to host country attributes, and raising equity concerns. Countries go in for greater vigilance for limiting artificial shifting of tax base to no/low tax havens, for preventing imbalances in the global tax system. Various approaches for the treatment of outbound and inbound investment can be expected across countries, displaying different country circumstances.

9.5 SUMMARY

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In this unit, you have learnt that:

- Fiscal policy generally refers to the government's choice regarding the use of taxation and government spending to regulate the aggregate level of economic activity. In the same vein, the use of fiscal policy entails changes in the level or composition of government spending or taxation, and hence in the government's financial position.
- Monetary policy refers to the central bank's control of the availability of credit in the economy to achieve the broad objectives of economic policy. Control can be exerted through the monetary system by operating on such aggregates as the money supply, the level and structure of interest rates, and other conditions affecting credit in the economy.
- While monetary and fiscal policy are implemented by two different bodies, these policies are far from independent. A change in one will influence the effectiveness of the other and thereby the overall impact of any policy change.
- An expansionary fiscal policy leads to an expansionary monetary policy, fuelling inflationary pressures, causing a possible real appreciation of the currency and hence balance of payments difficulties, potentially even resulting in a currency (and/or banking) crisis.
- In addition to the direct relationships between fiscal and monetary policy, there is the more indirect channel through expectations. Perceptions and expectations of large and on-going budget deficits and resulting large borrowing requirements may trigger a lack of confidence in the economic prospects.
- One of the channels of fiscal policy constraining the conduct of monetary policy include the impact of fiscal deficits on interest rates and interest spreads, particularly, for emerging markets.
- Another area where monetary and fiscal policy come together is the development of financial markets. Both finance ministries and central banks have a strong interest in financial market development because: (i) it is indispensable for economic development and growth; (ii) it facilitates funding of deficits and debt; and (iii) it enables market-based operations by central banks.
- The relationship between monetary and fiscal policy depends strongly on the development of financial markets. The transition from a rudimentary financial system to a fully developed system can be divided into four stages.
- Central bankers expressing views on budgetary policies have become regular features in the international financial press, often in the context of presentations in Parliament and at presentation of reports on the economy.
- The exchange rate plays an important part in considerations of monetary policy in all countries. More generally, the exchange rate serves to buffer the economy from external shocks, such that monetary policy can be directed towards achieving domestic price stability and growth.
- Both through counterbalancing the influence of external shocks, and more directly, through its influence on domestic incomes and therefore demand, the exchange rate has been an important influence on inflation.

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- Deficit spending is the amount by which spending exceeds revenue over a particular period of time, also called simply deficit, or fiscal deficit, or budget deficit; the opposite of budget surplus. The term may be applied to the budget of a government, private company, or individual.
- Fiscal deficit may be reflected in an increase in the current account deficit, but it could also lead to a reduction in the private sector investment-savings balance through a crowding out of private investment.
- An increase in the fiscal deficit may lead to a rise in the private savings rate, as individuals recognize that future tax burdens may be higher as a consequence of the need to service the prospective growth in public debt.
- The impact of high fiscal deficits on inflation is seen from two different angles. An increase in fiscal deficit would imply enhanced government spending, which could lead to an increase in aggregate demand and this could turn out to be inflationary if the economy is operating at or above potential level of output.
- In an elementary Keynesian model, the exchange rate is tacitly determined by net exports. These net exports in turn are governed by the income tendency to import abroad and in the home country.
- When the capital account is not indicated in such a model, there is an expansion of aggregate demand with an increase in the government deficit. This deteriorates the trade equilibrium and results into a decrease of the national currency for a given domestic tendency to import.
- Although monetary policy is the dominant influence on inflation, the deficit (as well as changes in inflationary expectations, and exogenous supply shocks) has the potential for affecting the price level.
- Acceleration of money growth in an attempt to counter the upward pressure on real interest rates would prolong and accelerate the rate of inflation.
- With the internationalization of the financial market, there has taken place a higher and ever growing interdependence amongst the economies of the world.
- Gradually, the policymakers have recognized that the macroeconomic policies that they work with might be producing very important and major ramifications internationally.
- Governments of nearly every nation would like to have their country appear lucrative for foreign direct investment (FDI). Such investment is capable of increasing employment and growth, introducing new technologies, generating new jobs, to name a few advantages.
- Residing at the core of the question of what is considered to be the correct level of a host country's corporate tax burden lies the question of how FDI will react to taxation.
- Studies conducted in recent times have shown that there is an increasing sensitivity of foreign capital to changes in taxation. This proves the rising mobility of capital with the removal of non-tax barriers to FDI.
- In the current global environment, tax competition for FDI is a real thing. It is a routine task for investors to make comparisons of tax burdens between countries that are similar as far as market size and location are concerned.

Check Your Progress

7. Fill in the blanks with appropriate terms.
   (i) With the internationalization of the _____market, there has taken place a higher and ever growing interdependence amongst the economies of the world.
   (ii) In the current global environment, _____ for FDI is a real thing.
   (iii) The treatment of tax for _____FDI is also a concern for governments.

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- The tax burden for outbound investment is also a matter of concern. For some nations, neutrality of tax between outbound and domestic investment (both having equal tax burden) is an important aspect of planning.
- Countries go in for greater vigilance for limiting artificial shifting of tax base to no/low tax havens, for preventing imbalances in the global tax system. Various approaches for the treatment of outbound and inbound investment can be expected across countries, displaying different country circumstances.

9.6 KEY TERMS

- **Fiscal policy:** It generally refers to the government's choice regarding the use of taxation and government spending to regulate the aggregate level of economic activity.
- **Monetary policy:** It refers to the central bank's control of the availability of credit in the economy to achieve the broad objectives of economic policy.
- **Current account:** It can be expressed as the difference between the value of exports of goods and services and the value of imports of goods and services.

9.7 ANSWERS TO 'CHECK YOUR PROGRESS'

1. Key variables in the monetary policy area include interest rates, money and credit supply, and the exchange rate.
2. An expansionary fiscal policy leads to an expansionary monetary policy, fuelling inflationary pressures, causing a possible real appreciation of the currency and hence balance of payments difficulties, potentially even resulting in a currency (and/or banking) crisis.
3. The exchange rate plays an important part in considerations of monetary policy in all countries. More generally, the exchange rate serves to buffer the economy from external shocks, such that monetary policy can be directed towards achieving domestic price stability and growth.
4. Deficit spending is the amount by which spending exceeds revenue over a particular period of time, also called simply deficit, or fiscal deficit, or budget deficit; the opposite of budget surplus.
5. Inflation is defined as a sustained increase in the general level of prices for goods and services. It is measured as an annual percentage increase.
6. The monetarist model as against the Keynesian model, neglects the income effects on trade flows which is the focal point of the Keynesian model.
7. (i) financial market
   (ii) tax competition
   (iii) outbound FDI

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9.8 QUESTIONS AND EXERCISES

Short-Answer Questions

1. Why is it crucial to pursue a consistent monetary-fiscal policy mix?
2. What are the direct and indirect channels that affect monetary and fiscal policy?
3. What is the impact of fiscal expansion?
4. 'Both finance ministries and central banks have a strong interest in financial market development.' Give reasons.
5. Write a note on deficits and interest rates in a simple Keynesian framework.
6. In the case of imports and exports, what is a deficit?
7. What has led to the growing interdependence amongst the economies of the world?
8. Why do some governments reduce the rate of statutory corporate income tax?

Long-Answer Questions

1. 'While monetary and fiscal policy are implemented by two different bodies, these policies are far from independent.' Discuss.
2. Assess the relation between fiscal and monetary policy and exchange rate.
3. Discuss the role played by the central bankers in the field of budgetary policies.
4. Explain the effect of deficit spending on prices of financial assets and interest rates.
5. Describe the effects of deficits on exchange rate, imports and exports.
6. Critically analyse the changes in tax rates and its effects on the movement of foreign capital.

9.9 FURTHER READING

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UNIT 10 FISCAL FEDERALISM

Structure

10.0 Introduction
10.1 Unit Objectives
10.2 Evolution
  10.2.1 Rationale for Fiscal Federation
  10.2.2 Financial Issues
10.3 Principles of Division of Financial Resources in a Federation
  10.3.1 Financial Imbalance: Vertical and Horizontal Inequity
10.4 Finance Commission and Planning Commission in Resources Transfer from Centre to the States in India
  10.4.1 Goals of Inter-Governmental Fund Allocation
  10.4.2 Fund Allocation Process
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10.7 Answers to 'Check Your Progress'
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10.9 Further Reading

10.0 INTRODUCTION

A country is said to have a federal structure if its government is a multi-tiered (also termed multi-level or multi-layered) one, that is, its government exists at two or more layers. In other words, it has a government with a territorial jurisdiction over the entire country (variously known as the Union, Central, Federal, or National Government), and one or more layers of sub-national governments. Each sub-national layer comprises parallel governments with their respectively demarcated territorial jurisdictions. Governments at sub-national levels are variously known as State governments, regional governments, local governments and so on. The functional jurisdiction of sub-national governments at a given layer is significantly similar, but need not be identical to each other. In such a federal structure, inter-governmental relations have several components of which the component covering its financial dimensions is the subject matter of fiscal federalism.

The field of federal finance (or fiscal federalism) comprises:

- Inter-governmental (both inter-tier and across every sub-national tier) allocation of subjects (functions) having financial implications
- Inter-governmental (both inter-tier and across every sub-national tier) allocation of subjects (functions) of financial receipts and disbursements
- Inter-governmental (both inter-tier and across every sub-national tier) financial relations including sharing and transfers of tax and non-tax receipts, grants, loans and other forms of disbursements

For reasons of simplicity of presentation, it is conventional to consider the financial issues of a federal set up with only two layers of government, namely, the national and a sub-national, the latter layer is generally referred to as the State-level governments.

In this unit, you will get acquainted with the concept of fiscal federalism and its aspects.

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10.1 UNIT OBJECTIVES

After going through this unit, you will be able to:

- Discuss the concept of a federal structure and federal finance
- Highlight the evolutionary path, main features and reasons for inter-country variations of fiscal federation
- Explain the various financial issues of a federal set up
- Discuss the basic principles that should govern inter-government division of functions
- Describe vertical and horizontal equity
- Assess the role of the Finance Commission and Planning Commission in the transfer of resources from the Centre to the States in India

10.2 EVOLUTION

Historical evolution of a federal set up normally follows one of the ***two alternative paths,*** namely, 'centralization' or 'unification' and 'decentralization'. In the former case, some States decide to form a union and have a 'national government'. To this end, they surrender some specified powers to it and retain the freedom of action and sovereignty in respect of remaining matters. For example, the State governments may surrender to the federal government subjects like defence, currency and foreign relations only, while retaining the remaining subjects. In this case, the federation is a creature of the States and, depending upon the constitutional set up, individual States may have the right of even breaking away from the federation.

In the second case, the national government of a country decides to create one more tier of sub-national governments for reasons of administrative efficiency and economy and shares some of its subjects with them and/or delegates some functions to them. The formation of such a federation reflects fissiparous forces in the country and a lack of harmony between interests of different regions. This tendency is more likely to be found in a geographically big country with a strong presence of regional differences. Federations are also suitable for those countries in which different ethnic and cultural groups occupy reasonably distinct geographical areas. This system of political organization enables these groups to maintain their identity and progress in their own ways, while still co-operating with each other.

Feature framework

Federal set ups are characterized by a variety of structural and other features. To an extent, they depend upon their evolutionary background, and the evolution of inter-governmental relationships. Generally, the constitution of a federation demands that that inter-governmental allocation of subjects and other related matters may be revised only with mutual consent of the parties involved.

One form of limiting the powers of one layer of government and assigning the balance to the other layer has been noted above where the federating States allow the Centre to deal with only some specified subjects. In another variety, the Centre delegates certain powers specifically to the States. In still other forms of federalism, the functions of *both* the States and the Centre may be specifically laid down. In this arrangement,

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both layers of government may have some concurrent powers as well, such as, the concurrency of levying and collecting certain taxes. In India, for example, the functions and powers and the Central and State governments are as given in the Union List and the State List of the Constitution. In addition, the Concurrent List contains functions which overlap between the Central and State governments. However, Indian Constitution did not allow both the Centre and the States to tax the same base. Similarly, in some constitutions, as in India, the Centre may have the authority to abolish, create or re-define the boundaries of a State.

Converging tendency

Thus, we have a wide variety of federal structures in the world. However, they have collectively exhibited a tendency to converge to a set of core features. In most federations, functions covering the entire country have gravitated towards the Centre with functions with regional character going to States. In this way, even the unitary types of governments have moved along the path of 'decentralization', while the 'decentralized' federations have exhibited a tendency to strengthen their unitary features in certain spheres. Consequently no government, Central or State, remains completely sovereign and this is the basis and spirit of any federation. In other words, every federal set up is faced with the task of assignment problem, the exact contents of which keep changing over time. This problem concerns assigning both the functions and financial resources to each stratum or layer of the government on the basis of certain principles and/or historical reasons. In some cases, even political factors come to play their role in these decisions. *The efficiency of a federal set up, however, does not depend upon the formal constitutional provisions only. Far more important is the way the system is operated, the conventions followed, and the spirit in which the intentions of the constitutional provisions are honoured.*

10.2.1 Rationale for Fiscal Federation

Fiscal federalism recognizes the fact that modern governments are stratified and therefore, the problems arising therefrom must be studied and solved. However, a question arises as to whether there should at all be a federal set up in a country? Are there any theoretical underpinnings for it? Let us see the justifications for having such a set up.

1. Efficiency

One answer to this question lies in the complexities of a modern life in its various ramifications—political, economic, social and others. And it is found that there are various duties and functions which can be more efficiently performed only at a federal level, while there are others which are best tackled at the State or even local level.

In the extreme, there are some services which approach very closely the *pure* public goods and which have a good deal of externalities such as defence, currency, measures for economic stability and the like. The provision of such services should ideally be in the hands of the federal government rather than the State governments or local authorities. Similarly, those services which cover more than one State, such as inter-state transportation, communication, trade and commerce, are subjects which are better suited for the federal government. These public services are meant to be consumed by the entire population of the country, or the population belonging to more than one State, and to put these under the jurisdiction of any one State, or divide them between States is likely to create unnecessary complications. The reason is that, in such cases, the costs and/or benefits of the service in question obviously spill over the boundaries of

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a single State. It becomes difficult to have a proper cost benefit analysis of such a service, to have a unified decision making process and bring in a harmony between the cost recovery and the paying out of benefits. On the other hand, there are some public services, the exact need for which is most likely to differ from area to area such as sanitation, provision of drinking water, medical aid and the like. From the administrative and other viewpoints, such services should be left in the hands of the States and local governments.

In between the two extremes are those functions which pose a problem, and make it difficult to have a clear cut division between the Central and the State governments. These are those functions which can probably be handled efficiently by both layers of government. Moreover, with the passage of time, it is possible that a function which was left to the States (or Centre) is now found better suited for the other layer of the government. Such difficult cases would probably include education. Any division of such functions can be debated and questioned. In India, we have the Concurrent List of functions for both the Central and the State governments. In such cases, however, care must also be taken that there is no duplication of efforts and no serious gap is left.

2. Nature of Problems and their Solutions

In a big country, there is likely to be a lack of uniformity in the problems faced by different regions. The nature of their problems may defy a common solution. For example, each region has its own economic resources and potentialities as also the limitations which it faces. The problems of regional disparities assume particular importance in an underdeveloped country and need an immediate attention. And an ideal solution would be the one which is in harmony with the cultural, social and political values of the people. In a big country, or in a country populated by different social and economic groups, therefore, the ideal economic, political and other solutions will differ. It would be best, therefore, to have a diversified pattern to suit the regional and other requirements. A federal set up provides better scope for aspirations—social and economic—of different regions of the people to be translated into practice through the diversity that it permits in the set up.

10.2.2 Financial Issues

Government activities have their financial counterparts, generating financial receipts and disbursements. Therefore, in a federation, along with the political problem of division of functions between different layers of the government, the issues connected with financial arrangements have also to be sorted out. In other words, a federal set up is confronted with the twin issues of *diversity* and *equivalence in the context of provision of public services and their financing.*

1. Provision of Public Services

In the context of provision of public services, the former issue concerns the objective that in a federal set up, regional and local needs and aspirations should be satisfied to the extent possible. It implies that the level and composition of provision of public services in different regions should vary. Equivalence, on the other hand, means that no region or locality is to be discriminated against; that is, by itself the policy of the government should be to treat all regions on a parallel footing and variation in public services should reflect only their respective needs and aspirations. More particularly, it means that public services may be categorized on the basis of their national, regional and local applicability

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and provided accordingly. Defence, for example, is a nation-wide service, maintenance of law and order is a regional one, and provision of street lighting, a local one.

(ii) Financing of public services

As regards the financing of a public service, it is generally Stated that the power to spend should go along with the obligations and power to raise the necessary resources. This is considered more so because expenditure is a relatively pleasant duty of administration as compared with that of raising the revenue. It implies that a sound solution of the financial issues will ensure that the governments in a federal set up have clear cut tax bases which do not overlap. Between the federal government and the State governments, the tax power should be divided according to the identification of the tax bases while across the State governments, even the same bases may be taxed but only within their respective territorial jurisdictions. Thus, for example, if the federal government is imposing income tax, the State governments should not do the same. However, taxes like land tax may be imposed by all the State governments since here the territorial boundaries of one tax-levying authority can be distinguishe from those of the others.

In practice, however, it is not always possible to avoid taxing the same base by two or more governments. And sometimes, another problem may arise in the form of what is termed as a tax competition. One State government may reduce or abolish certain taxes (such as sales tax) in order to attract trade and manufacture from other parts of the country. This type of competition is not always bad. A backward State might find it a useful incentive to attract capital and thereby help in bringing about economic growth. Therefore, whether or not tax competition in any particular situation is unhealthy, will depend upon the merits of the case and no *a priori* generalization can be made in this connection. Economists who ignore the problem of regional disparities advocate the principle of *locational neutrality* according to which no region should be allowed to compete capital away from others. But as Stated above, this principle cannot always be justified. Within a country, poorer regions should be permitted to attract capital through fiscal concessions but the richer regions should not be allowed to do so. While assigning the functions and resources, the question of *economic stabilization* dictates that some heads should be reserved for the Central governments. These include, for example, regulation of the economy as a whole to protect it against fluctuations in income, employment, and output, correction of balance of payment deficits and surpluses, and regulation of international capital flows. By implication, subjects like money and banking as also credit regulation should be with the Central government. Similarly, there is the question of spill-overs. Any function or resource which covers more than one region should be with the federal government rather than with those of individual regions. Connected with the above is the principle of *fiscal equalization*. Allocation of the heads of functions and resources on the basis of above mentioned criteria and principles gives rise to the problem of *fiscal imbalance between the federal government and regional governments on the one hand and between different regions on the other.* ***These versions of imbalances become issues of vertical financial imbalance/inequity and horizontal financial imbalance/inequity***. This imbalance has to be solved by appropriate mechanism of *resource transfers.*

Another aspect of the problem of federal financial relations concerning *financial discipline* may be Stated as follows: To allow and expect a government to perform certain functions means expecting it to spend the necessary amounts. If the government is not able to raise the needed funds, it obviously cannot perform these functions. A limitation on the available resources is a limitation on its power to spend and hence

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perform that function. But to let it have resources without any legitimate controls and discipline is also not desirable. If, for example, the Central government agrees to finance all the specified activities of the State governments irrespective of the extent of expenditure involved, the State governments would tend to over spend. There would also be wastage and inefficiency. *This leads us to look for a need for rules and guidelines for allocating financial powers as between different government units.*

It may be added that the above issues generally do not yield a harmonious solution. The objectives connected with these issues come in conflict with each other and the authorities have to choose an optimum feasible path.

10.3 PRINCIPLES OF DIVISION OF FINANCIAL RESOURCES IN A FEDERATION

Principles for efficient inter-government division of financial resources are as follows:

1. Efficiency

Different sources of public revenue can best be handled at different levels. Some sources of revenue are, by their very nature, national in character, while some are of regional or even of local character. For example, if we take the case of income tax, we find that to let this source of revenue be in the hands of State governments would create many anomalies and complications.

First, income tax rates and exemptions are likely to differ, if different States are given authority to fix their own schedules and exemptions.

Second, in a large number of cases, it will be difficult to demarcate the jurisdiction of various States in a clear cut manner. One can easily see the problems encountered in the use of direct taxes like income tax, gift tax, expenditure tax, etc. It is, therefore, thought best to assign such direct taxes to the federal government. There are similar other taxes which, because of their multiple association with different States, cannot be left in the hands of the States such as taxation of wealth, gifts, and inter-State trade transactions. Similar observations apply to custom duties.

Similarly, in a modern economy, a number of regulatory and protective financial powers have to be left with the federal government. One may mention here the currency and coinage, international capital flows, foreign aid, and the like. These things are assuming ever-increasing importance with expanding international economic relations.

In contrast, certain financial sources are better left with the State governments for efficient scheduling and collection. Examples may be given of land revenue, small scale and cottage industries, dairy farming, road transport, etc. Some sources of revenue should preferably be left in local hands; for example the income from water rates, house taxes, city transport and the like.

2. Economy

Like the canon of economy for the selection of the taxes, the assignment of various financial powers to different governments should also be with reference to the *economy in the cost of collection.* A non-economical and expensive way of collecting a revenue would be wasteful for the economy, and no economy is rich enough to waste its resources.

Check Your Progress

1. What does the historical evolution of a federal set up follow?
2. What are the twin issues confronting a federal set up?
3. What is locational neutrality?

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3. Desired Effects

Again it is found that a number of collective and other actions have to be taken which are of local nature and which vary significantly over different areas. The rates of house taxes, for example, need not be uniform in all cities. They are best decided by the municipal authorities themselves. In contrast, fiscal measures designed to bring about stabilization in the economy will be more effective if designed and implemented at the federal level. To protect the economy from a balance of payments disequilibrium and the like, a policy of customs duties can be helpful at the national level. Regarding the industrial policy designed to help the over all growth of the economy, it is the national action that is needed; but to reduce the regional disparities, State actions can also be employed. Thus, fiscal efficiency in terms of collections, and variations of coverage and schedules often point the way in which financial powers should be divided between different governments.

4. Adequacy

Seligman emphasized the criterion of adequacy when he said that '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 administration and the adequacy of the revenue.' However, the adequacy of revenue should obviously refer to the adequacy of the *total* revenue availability to a government. And in a federal set up, even that may come in conflict with the criteria on the basis of which functions are assigned to different governments. *Of the two, these days, the efficient allocation of functions is given a priority and the financial adequacy is sought to be adjusted through inter-governmental transfer of resources.*

Criteria of Resource Division

As a general rule, however, we can mention a few basic criteria which should form the basis of dividing the financial resources between the federal and the State governments, as also between the State governments themselves.

- The tax coverage and tax schedules should avoid being discriminatory as between citizens of the same country residing in different States, unless of course, the over all national policy dictates so, say, on welfare grounds whereby resources ought to be transferred from the more advanced to the less advanced States.
- Assuming that there is no specific problem of regional imbalance, the tax structure should be as uniform as possible as between different States. The States should avoid unhealthy tax competition and should therefore not come into conflict with each other.

10.3.1 Financial Imbalance: Vertical and Horizontal Inequity

The foregoing discussion relating to inter-governmental allocation of functions and resources reveals the problem of imbalance at the aggregative level, as between the Centre and the State, and as between the States themselves. It is a complex case of imbalance at both vertical and horizontal levels, where the latter refers to imbalance between authorities at the same level of government. The details of this double-edged manifestation of vertical and horizontal financial inequity vary from case to case and thus defy any standard solution. In India, this double-edged problem gains further complexity because of a large variety of local bodies with widely divergent sets of functions to perform.

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Let us first look at the imbalance at the aggregative level. It is highly unlikely that the duties (responsibilities) and financial powers would be in harmony at different levels of government. To begin with, it must be noted, that even for the economy as a whole, it is very unlikely that the needs and the availability of resources will match.

First, as Wagner and Wiseman Peacock hypotheses show, there will be an upward trend in public expenditure. The balance between the expenditure and revenue, even if it is attained once, is not likely to stay for ever. And Wiseman Peacock thesis supports this possibility in a much stronger manner.

Second, cyclical fluctuations and other disturbances in prices, income and employment, natural calamities and other emergencies etc., would cause an imbalance between the two.

Even if there is an overall matching of the resources with the needs, there is no reason to believe that such will be the case at local, State and federal levels separately as well. 'It so happens that the distribution of functions by performance criteria and of powers by economic allegiance tests do not lead to even a roughly satisfactory balance between own revenue and expenditure of most of the federations.' The nature of revenue resources best suited for one level of the government need not conform to the nature of the requirements of that level of the government. Similarly, even with similar financial powers, one State government may find them inadequate while the other may not. Actually, as we shall see below, there are chances that there will be quite a good deal of discrepancy, at least on welfare grounds. The discrepancy as between the resources available to the Centre and the States increases due to the fact that on account of efficiency, economy and other criteria the *Centre gets those resources which are relatively more elastic and buoyant in nature while the States are mostly saddled with relatively inelastic and less buoyant revenues.* Between the States also, various factors contribute to the discrepancy between their revenue resources. The level and composition of income in different States may vary widely. Those of them which have industries and services would be able to collect larger revenues, while those depending mainly upon agriculture will not be so fortunate. Similarly, the extent and intensity of trade, commerce, and allied services differ from area to area. Bigger commercial Centres are obviously able to lay their hands on more revenue than the areas which are backward in this respect. And peculiarly enough, the revenue *needs* of the economically advanced States are comparatively (as a proportion of the income of the State/region) lower. In less developed areas, there is an all-round need for improving social services, providing social overheads, improving health, establishing industries and the like. To put it differently, the marginal utility of each rupee spent by way of public expenditure in less developed States exceeds that in more advanced States. On the other hand, the marginal disutility of each rupee raised by way of public revenue is higher in the backward States.

Distributive justice is as much called for between regions of the same country, as between different members of the society. This justice implies that whatever be the level of governmental activity, the marginal disutility of taxation should be the same for different regions. And, similarly, the marginal utility or benefit of government expenditure should be the same. Since a backward region needs much larger amount of State services than it has at present, its marginal social utility from governmental services is far greater. In a backward region, therefore, the public expenditure should increase if need be, even by transferring the resources from the more advanced regions. Similarly, when it comes to collecting the tax revenue, it is relatively better off regions which should pay more because of the lower social marginal disutility or sacrifice of tax. Eventually, *inter regional justice demands that the richer regions should be taxed more and the tax collections should be transferred (partly) to and spent in the poorer regions.* Though we are not able to measure the social disutility and social utility of taxation and public expenditure, still a reduction in glaring regional inequalities will certainly be helpful.

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It is very unlikely that the advanced States within a country will voluntarily agree to transfer adequate resources to the poorer States. For such a transfer, we should have a strong federal government with resources much larger than its own requirements (and a larger share of these resources should be coming from the more advanced regions of the country) so that it can transfer them to the poorer regions for their levelling up. A strong Centre is also needed for political integrity of the country, which again implies larger resource availability to the Central government.

10.4 FINANCE COMMISSION AND PLANNING COMMISSION IN RESOURCES TRANSFER FROM CENTRE TO THE STATES IN INDIA

India is a federal economy and in such an economy the policies of State revenue and expenditure are directly affected by policies relating to inter-governmental transfer. The optimum fiscal policy of a State is dependent upon the rules that transferring agencies apply to fund transferring to sub-national governments. The weightage assigned is affected by three things: Distance, deficit financing and revenue effort. When the optimum policy is compared with the actual State's own revenue and expenditure policies, it is seen that the expenditure of the States exceeds that level which is their estimated optimum level and their revenue collection is far below the estimated optimum level.

The State governments and the Central government have both been given their own specific powers by the Constitution of India for raising revenue independently and also spending it independently. There clearly exists a vertical imbalance in the power of taxation between the State and the Centre and this is clearly admitted by the Constitution. Since the State has higher responsibility for expenditure, it is directed by the Constitution that the Central government needs to transfer resources to the State. The purpose of these transfers is to bridge the gap that exists between the resources that the States themselves can raise and the resources required by the State to fulfill the responsibilities that they have been assigned.

In India, there exists a three-tier transfer constitutionally demarcated system which is a mechanism that allocates funds based on specific functions as specified in three separate mandates. In India, the Central government uses the channel of the Planning Commission, the Finance Commission and of discretionary transfers through various union ministries and agencies for the purpose of transferring the various funds. Low power of enforcing taxing power and high responsibility for managing the expenditure leads the governments of the States to be completely dependent on the Central government for resources. The transfer made by the Centre covers a major portion of the State governments' revenue.

India's Constitution states specifically the responsibilities and the roles the three tiers are to perform, and these are differentiated based on the issues of micro/macro nature. Let us take an example. Matters that are of national importance, like macroeconomic management, international trade, transportation infrastructure and defence are solely the responsibility of the Centre. Following the provisions of the State list, the

Check Your Progress

4. What is helpful in protecting the economy from a balance of payments disequilibrium?
5. What does distributive justice imply?

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State holds responsibility to matters pertaining to State and regional importance, like local governments, agriculture, irrigation, housing, sanitation, public health and law and order. The third is the Concurrent list forming the final tier. This list pertains to sectors like bankruptcy and insolvency, education, contracts, social and economic social planning, employment and labour welfare, electricity, stamp duties and all other sectors which need consensus of the Centre and State.

In the Indian Constitution, there are 'quasi-federal' features that can be seen very distinctly. The Constitution seems to be biased, in both judicial and administrative arrangements, towards the Centre. The centripetal bias in fiscal policy has been mainly due to the passing on of all of the residuary powers to the Centre. With the passage of time, it has been seen that in the Indian system, the Centre-biased quasi-federalism has become deep rooted. In 1992, the 73rd constitutional amendment made provision for the statutory recognition of local governments and States. The amendment also provided a list of the functions and funding sources for the local bodies, both in the urban and rural areas. In addition, it was mandated that every State appoints a State Finance Commission for the allocation of taxes and fees to the local government as well as recommending the State's tax devolution and grants. Over time, there had not been any change or development in the Central-State fiscal relationship in the light of India's evolving fiscal set-up. It is believed that the Centre is fully aware of the welfare of the State. Furthermore, such institutions that the previous governments had established for the purpose of oversee division and allocation of funds are no more relevant to the current system of India.

10.4.1 Goals of Inter-Governmental Fund Allocation

Based on current literature, it can be said that inter-governmental fund distribution has two main purposes: Bridging the fiscal gap and balancing the inter-State capacities.

The main reason for the fiscal capacities being different between the State governments and the Union Government, or even from one State government to the other, is due to different capacities of different governments for taxation and responsibility for expenditure. In the current taxation and expenditure assignment system, it becomes impossible for States to maintain a balance between the expenditures they have to incur and the revenues that they can raise. Generally, this is termed as vertical fiscal imbalance. Because of a mismatch like this, it is required that that Centre allocates funds so that the inadequacy can be removed. Even with the augmentation of revenue at the State level, there has been a further rise in dependency. The reason for this is that though there has been steady increase of revenue, it is not fast enough to keep pace with the rising need of expenditure.

Besides vertical imbalances, there are also horizontal disparities that the States have to deal with. The degree of inadequacy varies from State to State. The reason for this is the lack of uniform tax base across the States. Adding to this is the fact that there is also a difference in expenditure from State to State. Since such a huge divergence exists, it is essential that balancing mechanisms be put in place in some form or the other.

Balancing of Inter-State Capacities

It is known that revenue as well as the spending requirement vary from State to State. If parity needs to be maintained, redistribution of the funds must take place. This phenomenon is well defined by Robin Broadway and Frank Flatters. According to them, for maintaining parity, it is essential that two persons who are equally well-off but living in different provinces, must remain equally well-off post taxation and the provision of public goods.

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It is to say, though they are in two different provinces, they must have the same level of well-being. Hence, due to disparity in the States—any State that a person resides—persons who are equally well-off must not be deprived of enjoying the same level of well-being. This goes to address the horizontal disparity issue in some manner.

10.4.2 Fund Allocation Process

Since there is imbalance of a quasi-federal structure of government, there are four different channels through which the government transfer funds in India. There are mainly two commissions that are employed for the purpose of allocation. These are the Finance Commission and the Planning Commission. Another channel is via the Centrally Sponsored Schemes and funds; this channel is used for the purpose of some specific spending. Projects under such schemes work jointly via a cost-sharing mechanism between the Centre and the State. The last option for the States to obtain revenue is through borrowing from the market. Furthermore, for commercial banks, it has been made mandatory that they retain 35 per cent of the lendable resources that they have as more liquid assets (the Statutory 3 Liquidity Ratio). An example of such an asset is State government bonds. In this way, there is an incentive for banks to buy government bonds.

1. Finance Commission

The responsibility for allocation of funds of the Finance Commission is just limited to non-plan current expenditures because of the Planning Commission performing similar functions. According to Article 280, every five years, the Finance Commission is appointed by the Prime Minister. The following steps are involved in the transfer of funds by the Commission: (i) Making an estimate of the overall available budget based on the Union's and State's total resource requirement, (ii) Making an estimate of the States' current revenues and non-plan expenditures, (iii) Making an assessment of the proportion of proceeds from Central tax which will go to the States and distributing this amount amongst the States, and (iv) Making available Grants-in-Aid to bridge any existing gaps between revenue and non-plan current expenditure. In step (iii) the transference of tax proceeds is there for the purpose of handling the horizontal and the vertical imbalance. The transference act itself addressed vertical imbalances and weights assigned to specific key factors help in the correction of horizontal imbalances. The main purpose of the transfers is economic efficiency and discouraging financially initiated migration within the country. In the Thirteenth Finance Commission (FC-XIII), four specific criteria have been employed for the transference of four taxes: Population, area, fiscal capacity distance and fiscal discipline.

(i) **Population:** Population as a factor aims at making certain that there is equity across all States. As population rises, so do needs. The assumption is correct that the State that has more population needs more funds to ensure that residents receive comparable degree of public goods as in other States. A weight of 25 per cent for population has been assigned by FC-XIII.

(ii) **Area:** Area as a factor aims at equity by taking into consideration the varying cost disability of different States. A State that is larger in size will need to have more spending as far as administrative costs for public service delivery are concerned. In line with this rationale, there is a 10 per cent weight given to this criterion.

(iii) **Fiscal capacity distance:** Fiscal capacity distance as a factor has its basis in the principle of raising efficiency. Its aim is to incentivize States to increase tax efforts

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while taking into account the fiscal disadvantages of the States. The weight for fiscal capacity distance has been fixed at 17.5 per cent by FC-XIII.

(iv) **Fiscal discipline:** Fiscal discipline is based on the fact that besides resources being distributed equally, it is also of key importance to reduce their inefficient utilization. It is, therefore, recommended by the Commission that there should be rewards for the prudent utilization of resources. FC-XIII has assigned a 17.5 per cent weight to fiscal discipline and this percentage is more than that provided by the previous Commission by a whole 10 per cent.

2. Planning Commission

While the Finance Commission aims at fiscal equalization, the Planning Commission is more development oriented. The Planning Commission transfer funds so that the States' fiscal capacity can be increased. Such fund transfer is done via two specific mechanisms—grants and loans. Previously, the components of these mechanisms were mainly project-based. Nevertheless, after 1969, the Gadgil formula is employed by the Planning Commission. The Gadgil formula has been revised on various occasions and the version which is in use at present is referred to as the National Development Council (NDC) revised Gadgil-Mukherjee Formula. In case of special category States, the process of transfer is not the same as that used for other major States. All of the 11 mountainous States of North and North-East India together form a group of special category States. Of these, seven states have received this status because of their distinctive economic requirements and capacities. Of the total funds, 30 per cent is allotted to these States by the Planning Commission. Out of the 30 per cent, 90 per cent is sent out in the form of grants and the ten per cent that remains is used to provide loans. Of the total funds, 70 per cent are kept for the rest of the States and the Gadgil-Mukherjee Formula is employed for their distribution.

Since independence, the fiscal linkages of India have remained mostly unaltered and over the years, these linkages seem to have possibly further cemented. The debate and the struggle between the Centre and States has become more and more intense over the years. Though several arguments have been put forth against the system presently in use, those that are more significant seem to target a single basic problem and it is this specific problem that has stood as a hurdle to this relationship's reformation and it being able to modernize and evolve with changing time and economic environments.

In simple words, it is politics which is the basic problem. Politics lay a huge strain on the relationship, and more so on those States which are represented by parties in the opposition or those States that have fallen out of favour of the Centre. Also, the allocation of funds is used as a means to entice parties to join or align with certain political alliances and it is also being used as a punishment by holding back funds from persons who are in opposition. Another argument that is majorly employed against the relationship that exists presently is that it lays too much emphasis on need-based fund allocation instead of fund allocation on merit basis, and this makes the well-performing States disillusioned. Moreover, certain States have been allocated special status and there is decentralization of decision-making with regard to allocation of funds for economic activities and these are all points of contention.

10.4.3 Criticism of the Federal Finance Structure of India

The federal finance structure of India is heavily criticized due to the following three critical issues:

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- States have no allocation autonomy for funds that the Centre disperses.
- Fund allocation is not merit-based but need-based.
- Fund allocation is used as a political tool.

1. States Lack Allocation Autonomy on Funds

The practice for some certain allocation of funds to the States is based on schemes, and these schemes come with their own guidelines for the utilization of the allocated funds. Most of the times, these funds are named after political leaders and are made available for States for only certain specific purposes and issues which are believed by the Centre to be vital for the State, and this many a times circumvents the real requirement of the States.

For a State government, it is imperative that it represents the demands and the needs of the local population and by this virtue, in most cases, they are a better judge of the importance/relevance of an issue. Therefore, the States argue that without autonomy deciding on the usage of such funds leads to huge quantities of resources often times getting diverted to such activities which do not prove to be of any benefit to the local population. They are also in the long run not beneficial for the Centre. Hence, it is proposed by several State governments that they should be provided autonomy in the allocation of funds flowing from the Centre. Such autonomy will enable the local government body to select and decide the most critical and pressing issues to which the resources and funds must be allocated instead of the allocation being forced upon them from someone outside the local system who may not understand the actual requirement. In cases where there is no autonomy, the trend will continue where the funds are diverted to such programmes and schemes which might not prove to be of any benefit to the intended segment of population or the State, and this will in effect be both a waste of precious resources and a means of nurturing misuse, bribery and corruption.

2. Merit-based Allocation and Need-based Allocation

In the allocation of funds to sectors such as employment and education, the government adopts a practice which is fundamentally based on need but not merit. With fiscal linkages and transfer, a completely reverse method is employed. The basis is that those States that are performing the worse need to be provided with fund allocation preference over States that are performing better. There is an argument opposing this which says that such States that are performing better feel that their better performance and their better contribution to the nation's revenue is not being rewarded but is being punished.

This method of fund allocation is being justified based on the theory that if funds are made available to such States that fall in the need-based model, then such funds will spur and even generate economic activity. Nevertheless, it is thought by States that if resources are invested in such economic activities that provide healthy returns, there will be a continuation of the positive cycle, creating over time a greater surplus and a decrease in the need for the Centre allocating funds. Yet, in such States whose economic performance is not good, this is impossible to attain where the funds from the Centre are being employed for other purposes which are not providing returns.

Finally, the argument becomes one which is fought between long-run gains and short-run gains. In case of the short-run outlook, reinvestment in any economic activity which is healthy would lead to that activity generating increased returns, and this will enable the State in becoming less dependent on the government for fiscal transfers. The

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other side of this argument remains that investments made in sickly economic activity or under-performing States will spur economic growth and boost returns. It is in the second theory that the real problem lies. Long-run investments due to which there is a spur in economic growth are subject to a huge number of variables that are needed for a sector's revival. Of all the reasons for this under performance of the States that lead to the need for long-term investment, one reason might be systemic problems within the State, and putting in more and more resources could just be adding to the existing problem.

For reviving economic activity at such a scale and getting the sector to reach a level that makes it self-generating would most probably need investment for several years. The problem that is attached with the long-run concept is also that if funds are moved to activities that are less economically healthy, the Centre will be moving funds out of such programmes that are actually successful. For Central transfers, the primary goal must be the creation of such an economic system which has lower dependence on Central accounts than it had in the previous year. There is a heavy bias against merit-based allocation of 7.5 per cent and 17.5 per cent of total weight for the Planning Commission and the Finance Commission in the methodologies adopted by them. Yet, this does not prove that there is no need for need-based allocation. Nevertheless, long-run investments to revive economies over short-run investments to boost positive performance will keep not only the need-based States dependent on Central funds but may also bring the better performing States back into the fold of dependency.

3. Allocation: A Political Tool

The highest criticism that is made of the Central-State fiscal linkage resides in the fact that a huge number of times, the relationship is dependent on what kind of political relationship is shared by a State with the government at the Centre. Oftentimes it is true that in case the State is governed by a party that does not have a good relationship or is not in alliance with the political party at the Centre, the State stands to lose as it is not provided much favour or priority in comparison with such States which are inclined and aligned politically with the Centre. Despite the fact that the equation which is employed for fund allocation as well as the Finance Commission's mandate are non-partisan, still there is regular occurrence of political favouritism. Any State which is under the rule of the opposition has less probability of getting special funds or special status in comparison to such States which are under the rule of the same party which is also ruling at the Centre. Furthermore, States are given special funds and special status so that their political alliance can be obtained.

10.4.4 Criticism of the Planning Commission

Policy makers and experts have again and again, raised questions regarding how relevant is the role of the Planning Commission. There are other commissions which exist and perform the duties of the Planning Commission, hence the policy makers and experts believe that it is unwarranted that the Planning Commission also continues. While the debate has just begun questioning as to how relevant the Commission has remained, it has now become larger and now has gone so far as to ask for its total mandate reform and even dismantling it.

'Since the Planning Commission has defied attempts to reform it to bring it in line with the needs of a modern economy and the trend of empowering the States, it is proposed that the Planning Commission be abolished,' the Independent Evaluation Office had said in a report.

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Following are some of the criticisms that are made against the commission:

- To begin, it is said that the basis for the creation of the Planning Commission was of setting up of such an organization that would formulate economic policy for those States of the Indian Union which were newly formed and economically weak. It would be the one to coordinate between ministries and government institutions, and it would be the unit which covered all those areas which were not overseen by any specific ministry. With the passage of time, there has been tremendous change in the economic status of States, because of each State's functioning economic units. Hence, there has been a transfer of the needs for policy formulation to planning boards and State governments from the Commission. Furthermore, in 1951, when the Planning Commission was established, several economic activities like earth sciences, shipping, atomic energy, corporate affairs, steel and development were under direct charge of the Commission and not represented by a specific ministry. Now, there are specific ministries that look after such activities and due to this there has been a reduction in the mandate of the Commission. The specific ministries oversee the strategy, planning, coordination and implementation within specific sectors.
- The second point is that the Finance Commission already holds the responsibility of formulating and calculating the equation which is applied to allocating and transferring, and it is extremely well suited to take care of the allocation too. Thus, there seems to be little use or purpose of one additional 'independent' authority, more so when there is already a separate commission which handles the task of designing and implementing financial transfers.
- The third point is that of the proximity and association that the Planning Commission has with the Central government. It appears to be a fact that the appointment of the organizational head of the Commission is a politically motivated nomination. This by itself, since there will be political bias, renders the Commission non-independent when it comes to taking Centre-State fiscal decisions. Since the Commission will have political leaning, resource allocation will even more become a tool for political gain applied as reward or punishment towards States based on the present political alignment of the State.
- The fourth point is that when the Commission was formed, the vision was that the Commission would employ the services of policy maker experts in the process of decision-making with respect to creation of schemes and allocation of resources. In the present times, the Commission does not actively encourage this policy and the offices and ranks in the omission are all filled in by political appointments and by senior bureaucrats. According to the Commission's original mandate, it was supposed to advice the Prime Minister's Office (PMO) on the varied and various developmental issues having taken expert opinions of domain specialists, and specifically regarding such issues that the Central Government's decision-making officials may not understand easily. In the original mandate, the Planning Commission was also required to perform both in-depth research and analysis for scheme and policy creation for the nation and also provide criticism as far as activities of the Centre were concerned. Currently, there is a shift in the Commission's mandate and it is now seen to support the government's policies and claims under every condition even if far removed from ground realities.

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- Last, it can be seen that the Commission employs methods that are outdated for the purpose of calculation of allocations and policy creation and these are neither in line with the contemporary economic systems nor with the recipient and stakeholder needs. When in-depth research and analysis is missing, the only role that the Planning Commission is playing in policy formulation lacks any sort of alignment with economic realities and is in a way also obsolete.

10.5 SUMMARY

In this unit, you have learnt that:

- Historical evolution of a federal set up normally follows one of the two alternative paths, namely, 'centralization' or 'unification' and 'decentralization'. In the former case, some States decide to form a union and have a 'national government'.
- In the second case, the national government of a country decides to create one more tiers of sub-national governments for reasons of administrative efficiency and economy etc., and shares some of its subjects with them and/or delegates some functions to them.
- Federal set ups are characterized by a variety of structural and other features. To an extent, they depend upon their evolutionary background, and the evolution of inter-governmental relationships.
- Fiscal federalism recognizes the fact that modern governments are stratified and therefore, the problems arising therefrom must be studied and solved.
- A federal set up provides better scope for aspirations—social and economic—of different regions of the people to be translated into practice through the diversity that it permits in the set up.
- A federal set up is confronted with the twin issues of diversity and equivalence in the context of provision of public services and their financing.
- In the context of provision of public services, the former issue concerns the objective that in a federal set up, regional and local needs and aspirations should be satisfied to the extent possible.
- Economists who ignore the problem of regional disparities advocate the principle of locational neutrality according to which no region should be allowed to compete capital away from others.
- Allocation of the heads of functions and resources on the basis of above mentioned criteria and principles gives rise to the problem of fiscal imbalance between the federal government and regional governments on the one hand and between different regions on the other.
- Different sources of public revenue can best be handled at different levels. Some sources of revenue are, by their very nature, national in character, while some are of regional or even of local character.
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- Certain financial sources are better left with the state governments for efficient scheduling and collection. Examples may be given of land revenue, small scale and cottage industries, dairy farming, road transport, etc. Some sources of revenue should preferably be left in local hands; for example the income from water rates, house taxes, city transport and the like.
- To protect the economy from a balance of payments disequilibrium and the like, a policy of customs duties can be helpful at the national level. Regarding the industrial policy designed to help the overall growth of the economy, it is the national action that is needed; but to reduce the regional disparities, state actions can also be employed.
- Distributive justice is as much called for between regions of the same country, as between different members of the society. This justice implies that whatever be the level of governmental activity, the marginal disutility of taxation should be the same for different regions.
- It is very unlikely that the advanced states within a country will voluntarily agree to transfer adequate resources to the poorer states. For such a transfer, we should have a strong federal government with resources much larger than its own requirements (and a larger share of these resources should be coming from the more advanced regions of the country) so that it can transfer them to the poorer regions for their levelling up. A strong centre is also needed for political integrity of the country, which again implies larger resource availability to the central government.
- India is a federal economy and in such an economy the policies of State revenue and expenditure are directly affected by policies relating to inter-governmental transfer. The optimum fiscal policy of a State is dependent upon the rules that transferring agencies apply to fund transferring to sub-national governments.
- Since the State has higher responsibility for expenditure, it is directed by the Constitution that the Central government needs to transfer resources to the State. The purpose of these transfers is to bridge the gap that exists between the resources that the States themselves can raise and the resources required by the State to fulfill the responsibilities that they have been assigned.
- India's Constitution states specifically the responsibilities and the roles the three tiers are to perform, and these are differentiated based on the issues of micro/macro nature. Let us take an example.
- Based on current literature, it can be said that inter-governmental fund distribution has two main purposes: Bridging the fiscal gap and balancing the inter-State capacities.
- The responsibility for allocation of funds of the Finance Commission is just limited to non-plan current expenditures because of the Planning Commission performing similar functions.
- While the Finance Commission aims at fiscal equalization, the Planning Commission is more development oriented. The Planning Commission transfer funds so that the States' fiscal capacity can be increased.
- The practice for some certain allocation of funds to the States is based on schemes, and these schemes come with their own guidelines for the utilization of the allocated funds.
- In the allocation of funds to sectors such as employment and education, the government adopts a practice which is fundamentally based on need but not merit.

Check Your Progress

6. State the purpose of the transfer of resources from the Centre to the States.
7. What is the reason for the centripetal bias in fiscal policy?
8. State the main purpose of inter-governmental fund distribution.
9. What method does the government adopt in the allocation of funds?

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- The highest criticism that is made of the Central-State fiscal linkage resides in the fact that a huge number of times, the relationship is dependent on what kind of political relationship is shared by a State with the government at the Centre.
- Policy makers and experts have again and again, raised questions regarding how relevant is the role of the Planning Commission.
- It can be seen that the Commission employs methods that are outdated for the purpose of calculation of allocations and policy creation and these are neither in line with the contemporary economic systems nor with the recipient and stakeholder needs.

10.6 KEY TERMS

- **Federal structure:** A country is said to have a federal structure if its government is a multi-tiered (also termed multi-level or multi-layered) one, that is, its government exists at two or more layers.
- **Distributive justice:** It implies that whatever be the level of governmental activity, the marginal disutility of taxation should be the same for different regions.

10.7 ANSWERS TO 'CHECK YOUR PROGRESS'

1. Historical evolution of a federal set up normally follows one of the two alternative paths, namely, 'centralization' or 'unification' and 'decentralization'.
2. A federal set up is confronted with the twin issues of diversity and equivalence in the context of provision of public services and their financing.
3. Economists who ignore the problem of regional disparities advocate the principle of locational neutrality according to which no region should be allowed to compete capital away from others.
4. To protect the economy from a balance of payments disequilibrium and the like, a policy of customs duties can be helpful at the national level.
5. Distributive justice implies that whatever be the level of governmental activity, the marginal disutility of taxation should be the same for different regions.
6. The purpose of these transfers is to bridge the gap that exists between the resources that the States themselves can raise and the resources required by the State to fulfill the responsibilities that they have been assigned.
7. The centripetal bias in fiscal policy has been mainly due to the passing on of all of the residuary powers to the Centre.
8. Based on current literature, it can be said that inter-governmental fund distribution has two main purposes: Bridging the fiscal gap and balancing the inter-State capacities.
9. In the allocation of funds to sectors such as employment and education, the government adopts a practice which is fundamentally based on need but not merit.

10.8 QUESTIONS AND EXERCISES

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Short-Answer Questions

1. What is fiscal federalism? What does the field of federal finance comprise?
2. State the rationale for fiscal federation with special reference to a country having inter-regional disparities.
3. What are the issues that confront financial arrangements?
4. Describe efficiency as a principle of division of financial resources in a federation.
5. State the criteria of resource division.
6. Write a note on financial imbalance.
7. What is to be done when it is very unlikely that the advanced states within a country will voluntarily agree to transfer adequate resources to the poorer states?
8. What are the roles stated by the Indian Constitutio for the three tiers of the government?
9. State the goals of inter-governmental fund allocation.
10. What are the steps involved in the transfer of funds by the Commission?
11. Why is there a debate regarding the existence of the Planning Commission?

Long-Answer Questions

1. What is the federal structure of a government? Highlight the evolutionary path, main features and reasons for inter-country variations of fiscal federation.
2. Evaluate the claim that fiscal federalism invariably faces a problem of financial indiscipline/imprudence on the part of governments. Do you think it is possible to effectively solve this problem?
3. Critically examine the assertion that issues of fiscal federalism faced by a country are closely related to the dynamism of its economic and political structure.
4. Explain the various financial issues of a federal set up.
5. Discuss the basic principles that should govern inter-government division of functions and resources covering, in particular, the problem of horizontal equity at sub-national layers of government. Also highlight the problems associated with assigning relative weights to different governmental services and duties like those relating to economic growth and social welfare.
6. What do you mean by financial imbalance? Discuss its types.
7. Discuss the role of the Finance Commission and Planning Commission in the transfer of resources from the Centre to the States in India.
8. Assess the fund allocation process of the Finance and Planning Commission.
9. Discuss the criticism of the federal finance structure of India.