ECONOMICS

MONEY, BANKING AND PUBLIC FINANCE

"We may forgo material benefits of civilization, but we cannot forgo right and opportunity to reap the benefits of the highest education to the fullest extent..."

-Dr . B.R. Ambedkar

Dr. B.R. AMBEDKAR OPEN UNIVERSITY

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Chandra

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Further infromation on Dr. B.R. Ambedkar Open University courses may be obtained from the Director, (Academic), Dr. B.R. Ambedkar Open University, Road No. 46, Prof. G. Ram Reddy Marg, Jubilee Hills, Hyderabad. - 500 033.

web: www.braou.ac.in
E -mail : info@braou.ac.in

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INTRODUCTION TO THE COURSE

Money is like a heart to the economy. Without money it is impossible to exchange the goods and services in the economy. In the ancient period, even if the barter system was in operation, the economy have experienced many inconveniences. Money has transformed through many forms i.e. from commodity to currency and finally reached the stage where credit cards are predominating. In the supply of money, there are four forms i.e. M_1, M_2, M_3, M_4 and there are many factors that determine the supply of money. Likewise, the demand for money also depends on various aspects is so far as the demand for money in concerned, Classical Economies and Keynesians have formulated the theories on money value.

In the modern times, the Banking system has largely developed with objective of helping the economy conduct its day to day affairs. As a result, money and capital market are established and all banking systems are controlled by Central Banking. All development Banks, Rural-Urban banks, Non-banking systems have extensively crept into the gross root of village economy so as to eater to the credit needs of the people.

During the Post – Second World War period, the function of the state have been to protect its subjects from the foreign attacks. With passage of time, its campus is so enlarged that the state is now required to make society work and provide justice to its subjects and evolve itself in development-activities. The state requires funds to carry out its multifarious and multi-faceted activities. Issues concerning how the Government should raise its resources by using alternate policy instruments, how it should allocate funds to finance its various activities are generally examined from the three points i.e. welfare, development and stability. The choice of instruments depends upon government revenue, mobilization, expenditure and borrowings.

The primary objective of this course is to discuss about supply and demand for money, various theories that were developed by the classical economists, Indian Banking system and economic principles that govern public finance, such as Public Revenue, Public Expenditure and Public Debt those of welfare Economics and Micro and Macro Economics.

This book deals with the topics in Money, Banking and Public Finance included in the syllabus for the third year of the under graduate course offered by Dr. B.R. Ambedkar Open University. These topics cover the specialized are to be studied in the third year of the Three Year Degree Course in Economics. The syllabus for the sake of convenience is divided into blocks. Each of which comprises a number of units. Each block generally covers a specific area of the subject.

The course in Money, Banking and Public Finance is covered in seven blocks. The first block provides an introduction to supply of money and value of money and explains the various theories of money and inflation. The second block deals with commercial banking while the third blocks explains Central Banking, Credit Central and Monetary policy. The fourth block discusses about introduction to Public Finance and fifth Public Revenue and Taxation. The Sixth block discussed on Public Expenditure and Public Debt, In the seventh block, the Federal and Functional Finance are discussed.

The units are prepared by the subject experts in accordance with a format so designed to enable the students to read and understand them without much difficulty. Each unit begins with contents and a statement of its objects followed by introduction and subject matter and at the end of each unit are given model examination questions to test the students comprehension of the subject matter.

The University hopes that this material will help the students to get acquainted with the principal issues in Money, Banking and Public Finance which make for its distinctiveness and significance.

CONTENTS

BLOCK – I : SUPPLY AND VALUE OF MONEY

The block primely explains the supply and value of money and its components of money supply. It also tries to explain how to measure the value money and calculate their prices. Moreover, it discusses in detail the various theories of money value like Irving Fisher, Keynesians, Milton Friedman and Cambridge.

In the last part of this block, it discusses about the analysis of inflation and the theories of Inflation.

This block contains the following 6 units.

Unit – 1 : Functions of Money & Components of Money Supply

Unit – 2 : Measurement of General Level of Prices

Unit – 3 : Theories of Value of Money : Fisher & Cambridge School

Unit – 4 : Keynesian Theory of Money & Prices

Unit – 5 : Friedman's Quantity Theory of Money

Unit – 6 : Theories of Inflation

UNIT - 1: FUNCTIONS OF MONEY AND COMPONENTS OF MONEY SUPPLY

Contents

1.0 OBJECTIVES

The aim of this unit is to explain you in brief how money evolved and how people transacted business before the invention of money and also explain you the concept, functions and components of money supply.

After reading this unit you are able to:

- know evolution of money;
- understand barter system and its difficulties;
- explain the concept and definition of money; and
- understand supply of money and its empirical measures.

1.1 INTRODUCTION

In the modern days, in all countries whether developed or developing, whether socialist, capitalist or mixed economies, money has an important role to play. Today an economy cannot function without the use of money. Monetary and real factors act and react on each other whereby money incomes, output, prices etc. are affected. For policy purpose, we need proper monetary tools and an appropriate definition of money. In what follows you are explained the concept of money, its meaning, attributes and measures of money supply. But before doing so, it is useful to trace the evolution of money.

1.2 EVOLUTION OF MONEY - BARTER SYSTEM & ITS PROBLEMS

The exact date of birth of money is not know. Money entered into this globe long ago. It is not known whether idiots or intelligent people invented it. Its invention may be a chance-phenomenon as well. Money, like many social institutions, underwent a process of historical evolution, spanning a very long period. During the lengthy process, many goods served as money---arrow and bow, cow, goat, tobacco, food items, metals especially the precious metals of silver and gold, paper etc. Finally money reached to its mature stage of shapelessness and dematerialised form, such as the international currency, issued by IMF (International Monetary Fund), called SDRs (Special Drawing Rights) and electronic transfers facilitated by Credit Cards issued by the banking community.

Barter System---Meaning & Problems

For a long time in the history, human beings conducted their transactions through barter system. The latter means direct exchange of goods for goods. It means the physically a commodity is given or a service is rendered and another commodity or service is obtained. Barter is still prevalent in rural India and farmers conduct certain transactions through barter. For so long, wants were limited, population was small and people lived in nearby areas, barter worked fairly well without the ills of modern monetary economy. However, as population began to expand, number and types of goods expanded and distance among people widened, barter posed serious problems. Some of the problems of it are: lack of double coincidence of wants, lack of common measuring rod, indivisibility of goods and difficulty in storing value. The toughest problem of barter is that often the wants of the two parties to the transaction do not match. Putting simply, what one wants to sell, the buyer is willing to buy, but the seller does not want the goods offered by the buyer but something else. The wants of the buyer and seller are not coinciding and hence the transaction does not take place. To overcome the limitations of barter, money was discovered.

1.3 MEANING OF MONEY

What is money? Although everyone thinks that he knows what money is, all strive to earn and carry money, but it is not easy to precisely define it. Different economists defined variously. Some definitions are based on functions of money while others are based on certain attributes of money. FA Walker defines "Money is what money does". This evades the problem of definition and turns of functions of money. In the words of DH Robertson money is "anything which is widely accepted in payment for goods or in discharge of other business obligations". From this 3 points may be noted – a) anything commodity can be money, (b) its wide acceptability, (c) it is accepted in exchange of goods and debt repayment etc. Almost similar definition is given by G. Crowther. According to him money is "anything that is generally acceptable as a means of exchange and that at the same time acts as a measure and as a store value". Like Robertson, Crowther too says that to serve as money it need not be beautiful or possess high value, it can be **anything** including a useless paper. Its important attribute is that it should be **generally acceptable**. It should serve as **medium, measure and store of value**. One may define it briefly as Generalised Purchasing Power.

1.4 FUNCTIONS OF MONEY & ITS ATTRIBUTES

Money performs a number of functions. They may be classified under two groups viz. (a) Primary or Fundamental Functions (b) Secondary Subsidiary or Derived Functions. Others add two more categories of functions viz. Contingent and Other Functions. For convenience and systematic analysis, it is better to consider only Primary and Secondary functions and treat Contingent and Other functions simply as advantages rather than functions of money.

Money performs two Primary Functions, namely, Medium of Exchange and measure of Value, and two Secondary Functions viz. Standard for Deferred Payments and Store of Value. To easily remember them, they are summarised in the form of a couplet (poem):

"Money is a matter of functions four,
A Medium, a Measure, a Standard and a Store"

These four functions are now explained in detail.

1.4.1 MEDIUM OF EXCHANGE

Money acts as a middleman between seller and buyer facilitating transactions. By serving as middleman, it solves the biggest difficulty of barter namely lack of double coincidence of wants. By splitting single transaction of barter into sale and purchase, money economy does not require double coincidence of wants. First, a commodity or service is sold for money, and then the money is exchanged for the required goods and services. As money is divisible, it facilitates operation of small and big transactions. As money has general acceptability, all exchanges take place in terms of money.

1.4.2 MEASURE OF VALUE

Money serves as a common denominator of values. By expressing the value of every goods in terms of money, comparisons can be made. Money measures the values of goods and services. Under the barter due to absence of a common measure of values, comparison of relative values of goods and determination of exchange rates were extremely tedious jobs. With the introduction of money, values of heterogeneous goods can be aggregated easily with the measuring rod of money. Money is the most convenient standard or measure of heterogeneous values of goods. By knowing the values of various goods expressed in money units, rate of exchange can be determined easily between various types of commodities and services.

1.4.3 STANDARD FOR DEFERRED PAYMENTS

This is one of the two secondary functions. It is derived from the function of Medium of exchange. Money serves as a medium of exchange not only for current transactions but also for future transactions. Deferred payments mean postponed or future payments. Money serving as a standard for deferred payments facilitates lending and borrowing. Under the barter, lending and borrowing are costly because physically goods have to be transported, involving delay and high costs. Modern banking and financial system owe to the institution of money.

1.4.4 STORE OF VALUE

This function too is derived from Medium of Exchange function. Money is par excellence of values. Purchasing power can be conveniently stored in money. Savings in terms of physical goods are easily perishable, costly and hence in barter level of savings is bound to be small. Money facilitates savings as it is the most convenient medium to hold. Money is the best store of wealth. By serving as a store of value, it facilitates capital formation. As money is highly a liquid asset, it can be transformed into any other asset without loss of time and without much cost.

Attributes of Money

Moneyness of a thing implies perfect liquidity, general acceptability, maturity and means of payment. These are interdependent qualities of money. According to some economists, another attribute of money is absence of explicit income. It simply means that possession of money should not lead to earning of income/interest. As will be known shortly, saving and demand deposits are constituents of money. In many countries, these deposits earn interest income. If the attribute of absence of income on its possession is considered, these deposits can not be called money. However, absence or presence of income is not main attribute of money. Due to institutional arrangements, such deposits earn interest as a by-product. The intention of public in holding these deposits is transaction motive, and not earning interest.

Compare these deposits with time (fixed) deposits. They are held by public not for transactions but to earn income. Although institutional arrangements permit these deposits for conversion into cash even before their maturity at low cost, they are not money. Such assets may be called **near money.** Another point to note is that although money performs the function of store of value, this function should not guide in defining money. To call an asset as money, it should be substitute for money, not only as store of value but also as medium of exchange. In essence the main attributes of money are general acceptability, perfect liquidity, maturity and means of payment (and absence of intention to earn income from its possession).

1.5 NARROW & BROAD MEASURES – COMPONENTS OF MONEY SUPPLY

Gurley & Shaw distinguish Inside and Outside money. the latter is circulated by the government and central bank of a country. The coins and currency notes issued by them are treated as exogenous to the system. It is also called Legal Tender because the money is tendered (given) by statutory bodies. Inside money refers to demand deposits with the banks. They are the outcome of contract between the public and banks. Inside money is treated as endogenous to the system.

Empirical Measures of Money Supply in India

As money can be anything characterised by wide acceptability in payment of goods etc., in reality we have a wide variety of assets which can be called money. For a layman, money means only the legal tender viz. coins and currency notes. However, besides these there are other assets which are substitutes of coins and currency notes. To understand the components of money supply, the case of India is considered. The Reserve Bank of India (RBI, which is India's Central Bank) has been regularly publishing data on five empirical measures of money supply with their components since 1977. They are called: Currency with the Public, M1, M2, M3 and M4. There is another measure to represent Reserve Money which is briefly called by the RBI as Mo. This will be discussed later.

Among the five empirical measures or components of money supply, three are popular. (a) Currency with the Public may be called **Very Narrow Measure** or narrow definition of money supply. (b) The RBI treats M1 as **Narrow Measure,** (c) M3 as **Broad Measure** of money supply. Soon it will be known that if we club Post Office deposits with bank deposits, M2 and M4 become superfluous and hence can be ignored. The RBI thought that the Post Office deposits are relatively less liquid compared to the bank deposits. Hence, to account for the Post Office deposits as components of money supply, M2 and M4 measures were devised.

You have grasped now the components of each one of the five measures along with their magnitudes. As money supply is a stock variable, to measure it one should consider some point in time. All the figures pertain to September 2001 and are in Rs. 1 crores.

1. **Currency with the Public:** All coins (small coins, Rs.1, Rs.2 etc coins) + Notes in Circulation – Cash with Banks = 4,100 + 2,22,600 – 8,400 = **Rs. 2,18,300 crores** (approx.)

2. **M1**= Currency with the Public + Demand Deposits with Banks + Other Deposits with RBI = 2,18,300 + 1,63,000 + 3,600 = **Rs. 3,84,900 crores.**

Other Deposits with RBI are in the nature of demand deposits held by institutions such as quasi-government bodies like NABARD and IDBI, foreign central banks and foreign governments.

3. **M3** = M1 + Time Deposits with Banks = 3,84,900 + 10,20,600 = **Rs. 14,05,500 crores.**

(In the recent years the RBI has not published details of M2 & M4. Based on the recommendations of the 1998 Working Group, headed by YV Reddy, New Monetary Aggregates are introduced and earlier data are revised. Today, the two measures of M2 and M4 are not popular because the share of Post Office Deposits is just 3 per cent. Moreover, they can be conveniently clubbed with bank deposits. The components and magnitudes of M4 and M2 are : M2 = M1 + Post Office Savings Deposits = 3,84,900 + 10,300 = **Rs. 3,95,200 crores.** M4=M3+Post Office Time Deposits = 14,05,500 + 35,400 = **Rs. 14,40,900 crores)**

To the question how much money India has in Sept. 2001,the answer is about Rs. 2 lakh crores to Rs. 14 lakh crores. The five measures are arranged in the descending order of liquidity. While Currency with the Public (Coins & Currency Notes) and MI are the most liquid forms of money, M3 & M4 are the least liquid.

Reserve or High Power Money

Mention may be made about another measure of money supply viz. Mo or Base Money or H money. H money means high powered money. The RBI calls it Reserve Money. It is produced by the Central Bank and the Government, and held by the public and banks. The word "Public" excludes producer of money (government, central bank and banks). Public includes individuals, companies, institutions, Quasi-governments like municipalities, foreign banks and foreign governments holding domestic currency.

Reserve Money designated as Mo is composed of the following:

Mo = Currency in Circulation (including cash with banks), Other Deposits with RBI and Bankers' Deposits with RBI = 2,26,700 + 3,600 + 71,900 = **Rs. 3,02,200 crores.**

Sources of Changes in M3 Measure of Money Supply

The sources of change in the broad measure of Money Supply are the following five factors. Put differently, some of them constitute the important governing variables which bring changes in the volume of M3. The sources of change in M3 are:

a) Net Bank Credit to Government, (b) Bank's Credit to Commercial Sector, (c) Net Foreign Exchange Assets of Banking Sector, (d) Currency Liability of the Government of India, (e) Banking Sector's Net Non-Monetary Liability. While the supply of M3 is positively associated with a, b, c, and d factors, it is inversely related with the last (e) factor of non-monetary liability. Factors that affect M3 supply are : amount of credit given by the RBI to government, Similarly, supply of M3 is affected by a change in RBI's credit to commercial sector. A rise in foreign exchange assets leads to rise in money supply and vice versa. It should be noted that not the total credit but only a part of it which is given by the RBI to the government and commercial sector. Moreover, if the credit given by the RBI rises by Rs.1, M3 rises not just by Rs. 1 but by certain times depending on the value of Money Multiplier. To sum up, of all the variables affecting M3, net RBI's credit to the government is the principal variable bringing change in the supply of money. Because an increase in the credit to the government by the RBI pushes up H (Mo) and thereby M3.

In passing, the importance of H money deserves mention. In India and in many other countries, fractional reserve system is followed. Commercial banks too create (produce) money (not coins and notes but something which does the job of currency viz. creation of bank deposits). Among other factors, deposit money creation depends on the availability of H money. Possession of H money serves as the basis for multiple creation of credit. Today in India for every Re. 1 of H money, money supply measured by M3 rises by about 5 times (Money Multiplier = M3/Mo = 14,05,500/3,02,200 = 4.7 or approx. 5).

1.6 SUMMARY

In Economics, money constitutes the most significant invention of man related to his production and commercial transactions. In modern days, the functioning of an economy is impossible without using money. Money oils the wheels of economy and helps in conducting transactions. Money underwent a process of historical evolution over a lengthy period of time. Before money was introduced, people use to buy and sell goods and services through barter system. Barter is suitable to a primitive economy. It has a number of limitations and poses serious problems. One of its main problems is lack of double coincidence of wants. With the invention of money, this problem and other difficulties were solved. Money can be any thing. It need not be precious goods. Also due to technological changes, today money need not have a specific shape or a thing that can be seen or weighed. Anything which is widely accepted for payment of goods etc. is money. The attributes of money are: general acceptability, perfect liquidity, maturity & means of payment and absence of income on its possession. Money performs two types of functions viz. primary and secondary. These are medium, measure, standard and store. It also performs contingent and other functions which are essentially the advantages of money. Gurley and Shaw distinguished outside and inside money. While currency with the public is outside money, bank deposits which are freely withdrawable are inside money. Empirical measures of money supply in India and components of money supply were discussed. Very narrow, narrow and broad measures of money supply were discussed. Very narrow, narrow and broad measures of money supply were explained. H money which is also called reserve money and its components were understood. It was noted that in countries following fractional reserve system, creation of credit by banks depends very much on the stock of reserve money. Money multiplier is calculated by dividing M3/Mo. Finally, factors affecting money supply were explained. Among other factors, changes in money supply are governed mainly by the RBI credit to government and commercial sectors.

1.7 CHECK YOUR PROGRESS

I. Answer the following questions in about 4 or 5 lines each.

1. What do you mean by the Barter system.
2. List the functions of money.
3. Distinguish between the inside and outside money.
4. What is money multiplier?

1.8 GLOSSARY

BARTER	:	Direct exchange of goods for goods.
MONEY	:	Any thing that is widely accepted in payment of goods etc.
INSIDE MONEY	:	Money or deposits created by banks.

OUTSIDE MONEY	: Currency with the public which is produced by the central bank and the government.
M1	: Narrow measure of money supply.
M3	: Broad measure of money supply.
Mo or H	: Base, high power or reserve money.
MONEY MULTIPLIER	: Ratio of money supply to H money, denoting number of times money supply changes for a unit change in H money.

1.9 MODEL EXAMINATION QUESTIONS

I. Answer the following questions in about 30 lines each

1. Write short notes on a) Narrow and Broad measures of money supply, (b) Sources of change in money supply.
2. What is money and what are its attributes?
3. Why was money invented and what are the main functions of money?

II. Answer the following questions in about 15 lines each

1. Explain the evolution of money.
2. Explain the meaning of money.
3. Explain the components of money supply.

1.10 SUGGESTED BOOKS

1. ML Seth : **Macro Economics,** Lakshmi Narain Agrawal, Agra, 1998.
2. KPM Sundaram : **Money, Banking and International Trade.**

- Prof. S. Kishan Rao

UNIT – 2 : MEASUREMENT OF GENERAL LEVEL OF PRICES

Contents

2.0 OBJECTIVES

Objective of this unit is to explain changes in the value of money in terms of changes in general level of prices and also various aspects of index numbers.

After reading this unit, you will be able to know:

- meaning of value of money;
- standards for measuring value of money;
- limitations of the standards of value of money; and
- index numbers and their construction.

2.1 INTRODUCTION

In the previous unit you learnt the concept and functions of money. One of the functions of money is medium of exchange. It means that in a money economy, everything is sold for money and the money so obtained is exchanged for obtaining required goods. This function implicitly tells that money has value. For practical purpose, value of money has to be quantified. In this lesson you will be explained how value of money is measured and what is its relation with price level. The lesson explains the concept and types of index numbers as well as method of constructing indices. You will be explained that with the help of index numbers changes in the price level and thereby changes in value of money.

2.2 VALUE OF MONEY AND STANDARDS OF VALUE OF MONEY

Before knowing standards of value of money, it is useful to define the expression of term-value of money. In Economics, value generally means value in exchange. The questions are: what is the exchange value of money and how is its value measured? Value of money is defined and measured in relation to general level of prices. Value of money means quantity of goods in general that are exchanged for a unit of money (currency). Put ting simply, it is the purchasing power of money. Since value of money means capacity to buy things, during a period of falling prices, value of money will be rising, and when prices rise value of money falls. Thus there is inverse relation between changes in prices and money value. More precisely, double the prices, money value will be halved and when prices fall by 100%, value of money gets doubled. If prices rise by 10%, value of a unit of currency (say, Rupee) falls by 10%. for e.g. if the price of a goods, say pen, is Rs. 4, value of one Rupee is $1/4^{th}$ of the good ($1/4^{th}$ pen). If its price doubles to Rs. 8, value of (one rupee) money falls from $1/4^{th}$ to $1/8^{th}$ of the good. If price is given, value (of money can be derived from it and if value (of money) is given price can be known. Symbolically, if value of money is 'V' and price (level) is 'P', then

$$V = 1/P, \quad P = 1/V.$$

As money can buy any commodity or service that is marketed, its value must be expressed in terms of every commodity and service that can be bought with money. One practical difficulty is that in reality as the number and variety of goods and services are innumerable, it is extremely difficult to express the value of money in terms of every good. There could be as many values of money in terms of every good. There could be as many values of money as the number of goods available for sale in the market. If the number of goods are 'N', the number of goods available for sale in the market. If the number of goods are 'N', the number of values of money are also 'N'. Another real (world) problem is that the price of every good need not rise at a time and so also need not fall at a time. Generally, the prices of some goods rise fast and others slowly. Also the prices of some goods may fall while the prices of other goods are rising. To overcome this problem, average price are general level of prices is considered. Even if one is able to express the value of money in terms of every marketable good, it does not serve the purpose of people. Because for any individual, general level of prices has little meaning. He never buys all the goods that can be bought with money. Each individual or each group of people is concerned with specific goods and services that can be purchased with the medium of money. One is interested not in the general or average value of money but value of money in relation to only those goods that he normally buys either for consumption or production. This leads to the issue of standards of value of money. There are three standards of value of money in popular usage. They are: (a) wholesale standard, (b) retail or consumption standard and (c) labour standard. Value of money is generally expressed in terms of one of these three standards. This threefold classification of the standards is rather arbitrary. When the goods are almost infinite with different prices, some degree of arbitrariness is unavoidable. For convenience, only three standards are discussed.

2.2.1 WHOLESALE STANDARD

When one considers wholesale standard, value of money is expressed in terms of the prices of all those commodities that are transacted in wholesale markets. Obviously, in wholesale markets only commodities are exchanged and not services. The wholesale value of money is preferred because wholesale prices are readily available from the market or official documents even on weekly basis.

2.2.2 CONSUMPTION OR RETAIL STANDARD

Alternatively, value of money can also be expressed in terms of a consumption standard. In this standard, average value of money is indicated in terms of the prices of only those goods and services that are purchased by an average family. As an average family buys goods from retail market, money value is expressed in terms of the prices of consumption goods is called Retail Value of Money. The difficulties with this standard are what is an average family, what are the goods purchased by it and which retail prices are to be counted. The same commodity is sold in different places and shops at different retail prices. Depending on the habits and standard of living, average family is different and the type of goods purchased by them also vary.

2.2.3 LABOUR STANDARD

Beginning from the mid 18th century, Adam Smith, David Ricardo, Karl Marx etc. attempted to measure value of money in terms of labour. In the labour standard, Rupee (money) value is expressed in terms of number of manhours or mandays that can be purchased with it. It is calculated by considering wages payable to labour for a day's work. This standard too poses serious practical problems. Labour is heterogeneous. Labourers differ in education, skills and efficiency. Therefore, wages paid for a day's work of different labourers will greatly vary.

The standards discussed in the foregoing do not perfectly solve the problem of measurement of value of money. Surely, the standards reduce the complexity of the problems inherent in the calculation of value of money. One should understand value of money only in relative sense and not in absolute sense. Value of money at a point in time is compared with its value at another time. The comparison of value of money during a given two periods is made indirectly via comparing the price levels.

2.3 CONCEPT AND TYPES OF INDEX NUMBERS

It is noted earlier that value of money can be known from prices and prices can be inferred from value of money. Prices and value of money are inversely related. To measure changes in price level, there is a statistical method called Index Numbers. An index is a pure number that tells percentage change compared to a base period. They are devices for measuring changes in the magnitude of a group of related variables. Index numbers present changes in the price level in an abbreviated form. They help to measure changes in a group of related variables from time to time or from place to place. However, the most important use of index numbers is to measure changes overtime. These changes may be related to prices of goods or quantities of output. In any case, index numbers generally do not measure changes in the magnitude of one variable but a group of related variables. Depending on the purpose, there can be a variety of index numbers. However, for the present purpose of knowing and measuring changes in value of money, two types of popular index numbers deserve attention. They are Wholesale Price Index Numbers (WPI) and Consumer Price index Numbers (CPI). Within the CPI, in India we have three variants representing average families of (a) industrial workers, (b) urban non-manual employees and (c) rural agricultural labour. These three are referred to as CPI for industrial workers, CPI for Urban Non-Manual Employees and CPI for Agricultural Labourers. While the wholesale price index number (WPI) tells changes in value of money in terms of all the commodities that are sold in the wholesale market, the consumer price index numbers inform changes in the value of money in terms of the goods normally purchased by an average family, say, of industrial workers.

2.4 CONSTRUCTION OF INDEX NUMBERS AND PROBLEMS

Construction of Index numbers involves the following steps:

a) Statement of the Purpose, (b) Selection of Commodities and Services, (c) Selection of Prices, (d) Selection of Base Year, (e) Representation of Prices in percentage, (f) Method of Averaging, (g) Weightage.

2.4.1 PURPOSE

The first step in the construction of index numbers is to clearly state the purpose for which the index numbers are constructed. For each purpose, a separate index is constructed. Selection of many things depends on the stated objective. It is important to know what one is trying to measure and for what purpose the index will be used. Is the index meant for knowing changes in the cost of living of industrial workers or agricultural labourers or certain other group of people? Is it for knowing changes in the general changes in the general level of prices? Based on the purpose, selection of the goods and type of prices to be collected will be decided.

2.4.2 GOODS SELECTION

Depending on the purpose, selection of goods and services is done. If the purpose is measuring changes in money value in terms of wholesale prices, only commodities are considered, for services are not generally traded in the wholesale markets. Also, not all the produced goods are to be included but only those that are actually traded in the wholesale market. One guiding principle is that the number of goods included should be neither too large not too small. The number should be manageable. Only representative commodities are to be included. Unless sufficiently large number of goods are included in the basket, the sample can not be representative. When similar goods are traded in the wholesale market, representative goods, is to be counted. For example in the wholesale market for foodgrains, when variety of paddy are sold, the most popular one whose trade is substantial is to be considered. One major problem in this context is popularly called Index Number Problem. In the construction of index numbers, for appropriate comparison, the same identical set of goods are to be listed both for the current year and for the year of comparison. In reality, over time certain goods consumed earlier will disappear and in their place new goods enter. For example in India a few decades ago, plastic buckets or plastic goods were almost non-existent but in the recent years they are popular goods. Care should be taken to include close substitutes in the current year to represent the goods used in the previous period.

2.4.3 SELECTION OF PRICES

Having identified the goods and services to be included, the next step in the preparation of index numbers is collection of their prices. While considering wholesale standard value of money, the appropriate prices are wholesale prices. For the same commodity in different wholesale markets different prices are likely to prevail. In such case, either average of the prices or prices prevailing in the representative wholesale market are to be counted. Prices are to be recorded both for the current year and for the year with which the current prices are to be compared. The variety of goods and prices that make the selection of data is a prime consideration. Problems of comparability and reliability are faced. One should not include the price of one good in the basket of goods for one time period and the price of slightly different good in the basket for another period.

2.4.4 REPRESENTATION OF PRICES IN PERCENTAGES

In the construction of index numbers, one important step is to represent the price of every selected good in the base year as 100, whether its actual price is Rs.1, Rs.2 .... Rs.1000 or 1 paisa etc. For example if the price of Rice per kg in the base year is Rs.5, it is shown as 100 and if the price of rice in the subsequent period is Rs.10, it is represented as 200 (per cent), if it is Rs.2½ , this is recorded as 50(per cent).

2.4.5 BASE YEAR SELECTION

Another important aspect of Index Numbers is selection of proper Base Year. Some point of reference is needed to make comparisons between prices referring to several time period or several places. This reference point is called Base. The selected base year is expected to be a normal year. Years of war, highly unstable period, droughts, floods, peaks and troughs of business activity called booms and depressions are to be avoided. It is better to take average of 2 or 3 years instead of a single year, because a short period is more affected by seasonal and accidental factors. Selection of a normal year is not easy to identify. Also the base year should not be too far in the past because practical decisions have to be taken based on the index numbers. This is why it is suggested that the base year is to be shifted after an interval of a decade or so.

2.4.6 METHOD OF AVERAGING

Once the data are collected both for the current year and base year, they have to be condensed into only two figures---one for the base period and another for the current or any year of comparison. This warrants selection of an appropriate method of averaging. There are 5 methods of average such as the arithmetic-geometric mean, mode and median. Any of them may be used. It is held by some that geometric average is a better one. However, in practice arithmetic mean is popular.

2.4.7 WEIGHTAGE

Another important consideration in the construction is the assignment of appropriate weights to different goods included in the basket. It is well known that the impacts on a common man of doubling of the price of salt or turmeric and doubling of the price of foodgrains are not the same. A small rise in the price of an essential like rice has much adverse effect on the well being of people than a big rise in the price of an inessential good like biscuit. Hence, index numbers which help in comparing the prices between two periods must accord proper weight to different goods. Weightage indicates the relative importance or the degree of importance of a good in a basket of goods. Although weightage involves some amount of arbitrariness, without it index numbers are more susceptible for misrepresentation of real state of real state of affairs. For price indices, two types of weights are normally used. They are quantity weights and value weights. When the price indices are constructed by using aggregate method, quantity weights are suitable. However, in the case of price relatives, value weights may be used.

2.5 NUMERICAL ILLUSTRATION

Suppose you are interested in knowing changes in the value of money during 1990 and 2001. Suppose the base year is 1990. For convenience, five representative goods and services consumed by common people are identified. These are: foodgrains represented by rice, clothing, fuel, transport, and entertainment. Table 2.1 illustrates simple or unweighted index numbers, based on hypothetical data of the aforesaid five goods.

Table 2.1: Simple Index Number

Goods	Prices in Rupees		Representation of Prices in %s	
	1991	2001	1991	2001
1. Rice (per kg)	5	10	100	200
2. Cloth (per metre)	10	15	100	150
3. Fuel (per unit)	1	1.25	100	125
4. Transport (per 10 kms of bus travel)	3	5	100	167
5. Entertainment (per ordinary cinema ticket)	5	9	100	180
6. Total			500	822
7. Average			500/5=100	822/5=164.4 or 164

The base year for the illustration in Table 2.1 is 1991 and the year of comparison is 2001. Treating the price of each one of the five goods as 100 in the base year, the total prices are 500 and the arithmetic average is 100. For the current year of 2001, the total prices are 822 per cent and the average price is 164. This 164 is called index number of prices for the year 2001 and 100 is called index number of prices for 1991. Compared to 1991, prices in the current year are approximately 1.6 times higher than prices in 1991. Put differently during the eleven year period, average price increased by 64 per cent (164 – 100). In other words, value of money decreased by 64 per cent. It also can be said that in 2001 the value of Rs. 164 is just equal to the value of Rs. 100 in 1991.

In the illustration given in Table 2.1, the index number was arrived at without assigning weights to the goods of consumption. Implicitly each one of the five goods represented in the basket of consumption was assigned equal weightage i.e. all are treated of having equal importance in the family budgets of consumers. This is against reality. Hence, to compare changes in the price level during two periods, different goods have to be assigned appropriate weights. Suppose that in the family budgets of consumers, entertainment is relatively the least important one and that of rice the most important. Suppose entertainment is given a weight of 1 and that of rice 14. It means that rice is fourteen times more important one and that of rice the most important. Suppose entertainment is given a weight of 1 and that of rice 14. It means that rice is fourteen times more important than entertainment. Put differently the impact of 1 per cent increase in the price of rice is equal to 14 per cent increase in the price of entertainment. The weight of clothing is 6 and those of fuel 5 and transport 4. In Table 2.1 weighted index number is calculated with the help of these weights and prices shown in Table 2.2.

Table 2.2: Weighted Index Number

Goods	Price in Rupees		Weightage	Representation of princes in %s	
	1991	2001		1991	2001
1. Rice (per kg)	5	10	14	100x14=1400	200x14=2800
2. Cloth (per metre)	10	15	6	100x6=600	15x6=900
3. Fuel (per unit)	1	1.25	5	100x5=500	125x5=625
4. Transport (per 10 kms of bus travel)	3	5	4	100x4=400	167x4=668
5. Entertainment (per ordinary cinema ticket)	5	9	1	100x1=100	180x1=180
6. Total			30	3000	5173
7. Average				3000/30=100	5173/30=172.4 or approx. 172

After assignment of weights to the goods of consumption, the index number for 2001 works out to 172, whereas the unweighted index number is 164. As the base year index is 100, the index number of 172 tells that prices increased by 1.7 times during the 11 year period or prices increased by 72 per cent (172-100). In terms of value of money, it decreased by 72 per cent during 1991-2001. In the numerical example considered in Tables 2.1 & 2.2, due to hypothetical arbitrary weights, the difference between weighted and un-weighted index numbers is not much. However, in reality depending on the weighting system their difference can be large.

2.6 SUMMARY

The purpose of the unit is measurement of general level of prices and through it measurement of charges in the value of money. Index numbers is a statistical method that helps to quantify changes in the prices of goods. There is inverse relation between changes in prices and value of money. Double the prices, one-half will be the value of a unit of currency and if prices decrease by certain percent, value of money rise by the same percent. Turn the price upside down, you will find value and similarly the reciprocal of value is price. To measure value of money and changes in it during a period, economists suggested three standards viz. wholesale, consumption and labour standards. Each one of these three standards has its own limitations and merits. They reduce the complexity involved in the measurement of prices and value of money. The popular index numbers to measure changes in prices are wholesale price index and consumer price index. In India, in the latter there are three variants. Index numbers are constructed step by step. Broadly, there are seven steps. They are: selection of purpose, goods, prices and base year, representing prices in percentages, working averages and assigning weights. After discussing details of these seven steps, two numerical examples were given to illustrate simple and weighted index numbers.

2.7 CHECK YOUR PROGRESS

I. Answer the following questions in about 4 or 5 lines each.

1. Define the concept of index number.
2. What is base year?
3. What is whole sale standard of value of money.
4. Explain the concept of weightage.

2.8 GLOSSARY

WHOLESALE STANDARD : It is a method to represent and measure value of money. In this money value is counted in terms of the prices of goods transacted in wholesales market.

CONSUMPTION STANDARD : Also known as retail standard helps to quantify changes in the value of money in terms of retail prices and goods normally purchased ordinary people.

LABOUR STANDARD : In this standard value of money is represented and counted in terms of man-hours or man-days that can be purchased by a unit of currency.

WIEGHTAGE : A method to indicate the degree or extent of importance of a commodity in a given basket of goods.

INDEX NUMBERS PROBLEM : The problem of aggregation of values and non-availability of a commodity in the current period to represent the commodity consumed in the base period.

2.9 MODEL EXAMINATION QUESTIONS

I. Answer the following questions in about 30 lines each.

1. What are index numbers? How do they help in measuring changes in value of money?
2. Explain the difference between weighted and unweighted index numbers and explain the steps involved in constructing index numbers.

II. Answer the following questions in about 15 lines each.

1. Explain the relation between prices and value of money.
2. Distinguish between whole sale and retail standards of value of money.
3. What is labour standard unit of value of money?

2.10 SUGGESTED BOOKS

1. ML Seth : **Macro Economics**
2. AL Nagar & Das : **Basic Statistics**

- Prof. S. Kishan Rao

UNIT – 3 : THEORIES OF VALUE OF MONEY: FISHER AND CAMBRIDGE

Contents

3.0 OBJECTIVES

The main objective of this unit is to focus on the various theories of value of money and other related theories.

After reading this unit, you will be able to:

- explain the various theories of value of money formulated by Fisher and Combridge and merits and demerits of their theories.
- analyse the bahaviour of consumer (demanders) and products (suppliers) of money.
- understand the quantity of money supply and velocity of circulation and how the level of employment and other related variables afford the general price level.

3.1 INTRODUCTION

In the previous unit we have studied the nature of money and the components of money supply and the ways of measuring the value of money. In this unit we will study the theories of value proposed by Fisher and the Cambridge economists. We know that every country has its own currency. Rupee is the Indian currency; Dollar is the currency of the U.S.A. A national currency of any nation has its internal and external value. Internal value of a currency depends upon its purchasing power of goods and services and external value on its foreign exchange rate. For example, at present one American Dollar is equal to 48 Indian rupees. In this unit our attention is only on the internal value. It means we do not take into account the foreign economic relations. It must be noted that the purchasing power of a currency depends upon the general price level. In a modern economy, a variety of goods and services are exchanged. These goods and services have their own individual prices. Therefore, we have learnt in the previous unit that an index number of prices indicates the general price level. If the price index increases the value of money decreases. This is a well-known fact with respect to any commodity or service. Fisher and the Cambridge economists have analysed the changes in the value of money with the quantity theory of money. Let us understand their theories and note the criticism made against them.

3.2 CRUDE QUANTITY THEORY OF MONEY

In order to understand the value of money, quantity theory of money is used since the time of the Greeks and Romans. Therefore, its origin goes back to ancient history. Even before the advent of classical economists, quantity theory of money was extensively used. But it was in a crude form. According to it the increasing quantity of money stock leads to a proportionate fall in the value money. This can be explained with the following equations.

$$M = KP \text{ or } P = 1/K\, M.$$

Here M = Money Stock
P = General Price Level and
K = Constant Proportionality

For example if K = 3 the value of M must be 3 times of P. As long as K is constant M and P will vary (change) in the same proportion. The crude quantity theory is based on two basic assumptions. They are (1) velocity circulation of money (V) is constant. (2) The volume of goods and services (T) purchased by money is also constant. These assumptions are by and large unrealistic. Trade cycles generally take place in modern economy. Therefore, employment, output and consumption are unstable. Non-economic events such as wars influence economic variables.

Keeping in view the above mentioned aspects the quantity theory of money has been improvised. Erving Fisher was the leading figure in this respect. Let us understand the transactions equation of exchange formulated by him.

3.3 QUANTITY THEORY OF MONEY: FISHER'S EQUATION

Irving Fisher published his book, "The Purchasing Power of Money" in 1911. He introduced certain new variables that were not there in the crude quantity theory of money. Fisher's equation is generally stated in this way.

$$MV = PT \text{ or } P = MV/T$$

Here M = Money Stock
V = Velocity of Circulation of Money
P = General Price Level
T = Volume of trade Transactions

Assuming velocity of circulation of money (V) and volume of trade transactions (T) as constant a direct (positive) relationship is established between the change in money stock and the change in the general price level. The transposed equation of exchange (P = MV/T) states that price level is directly affected by the product of MV and inversely affected by the volume of trade transactions.

For example, if we take the value of M = 100, V=3, T=50 price level must be 6 (=300/50). In case M=600, T=50, P=12 (600/50). On the other hand if MV=300, T=100, P=3(300/100).

Therefore, if T is constant and the value of MV doubles, price level also doubles. Thus the purchasing power falls by 50%.

Taking into account the development of modern banking and its effect on the money market, Fisher revised and enlarged his equation of exchange as follows.

$PT = MV + M^1V^1$ or $P = (MV + M^1V^1)/T$

Here M^1V^1 are newly introduced

M^1 = bank money supply

V^1 = velocity of circulation of bank money. In modern economic systems the share of bank money in the total money supply is larger. Therefore, the revised equation of Fisher is nearer to reality. As already said there is a positive relationship between $MV + M^1V^1$ and P. Between T and P, other things being equal, there is an inverse relationship.

3.3.1 DETERMINANTS OF FISHER'S EQUATION

We have noted that M, V and T affect the level of P and thereby the value of money. Several economic, institutional, technological and political factors affect the operation of the above variables. Let us learn something about them. First, let us examine the factors that affect changes in money stock. These factors may be classified broadly into three groups.

1. Monetary base
2. The proportion between bank deposits and currency with the public.
3. The ratio between bank reserves and bank deposits. Let us explain them in brief.

Monetary base is linked up with gold reserves. In modern times in many countries paper currency is the standard money and is widely circulated. It is also used by the Central Bank. By tradition and law the Central Bank has to maintain gold reserves to the extent of 25 per cent of the value of the currency issued. In addition to the currency issued by the Central Bank, to meet the increasing demand for business transactions, Government of India also issues one rupee notes and coins. In the total money supply, the currency and coins issued by Government of India constitute a small proportion. Over the years the importance of gold reserves and the link between gold stock and currency issue is diluted. However, the loose connection between them continues even now.

The proportion of the currency with the public and bank deposits is slowly declining over time. In countries with advanced banking systems, this proportion is very small. For example in USA the proportion between currency and bank deposits is about 10:90. In our country also overtime this proportion is declining and is presently at about 30:70. Lower the proportion between currencies and bank deposits, higher the scope for increasing credit creation and thereby money supply.

If the ratio between bank reserves and bank deposits is 10 per cent, 1 rupee with the bank can create deposits worth 10 rupees. Therefore, if a greater share of money supply is in the form of bank deposits and the reserve ratio is low when money supply increases; however, in the reverse case money supply decreases.

3.3.2 DETERMINANTS OF VELOCITY OF CIRCULATION (V)

In any given period of time a monetary unit changes hands in the process of business transactions and its velocity is nothing but the number of times it changes from hand to hand. In developed countries banking system is also well developed. Most of the payments are made by cheque and not by cash. On the other hand, in developing countries like India cash payments are common. When we talk about velocity of circulation of money we must consider transactions by cash as well as cheque payments. Velocity of circulation depends upon several institutional and individual spending habits. Developed banking and financial institutions, deferred payment systems tend to promote more expenditure. Also instalment payment systems in the purchase of durables facilitate more expenditure. Similarly, the duration of payment of wages and incomes affect velocity of circulation. Lower the duration of payment, higher the velocity of circulation. Technological changes, population growth, government fiscal policy, Central Bank's credit policy, corporate dividend policy, stock market developments and factors that affect trade cycles influence velocity either directly or indirectly. The propensity to save reduces expenditure and thereby reduces velocity (V) and also investment opportunities, interest rate credit, future expectation.

3.3.3 DETERMINANTS OF VOLUME OF TRADE TRANSACTIONS

According to Fisher trade transactions (T) include all transactions of goods and services, including shares and bonds. For example, if total output is 100 units and it is bought and sold 5 times its value will be 500 units. The volume of trade is primarily affected by four factors.

1. The quantity and quality of factors of production
2. Employment level
3. Division of labour and specialisation
4. Business organization

Countries with abundant factors of production produce more and therefore, the volume of transactions is also more. The USA, Canada and Australia may be cited as examples. A rise in the quality of factors of production also leads to a rise in the volume of trade. This is more so in the case of labour. A rise in skill formation of labour leads to rising productivity. During depression employment decreases; so also output and trade. In the recovery phase employment, output and trade rise. This process goes on until the stage of full employment. Figure-3.1 illustrates the four phases of trade cycle.

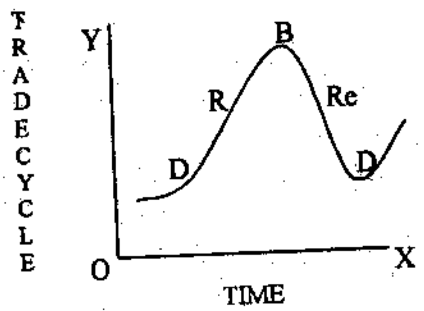


Figure – 3.1

D = Depression R = Recovery B = Boom (Inflation) Re = Recession

Depression is the lowest phase of the trade cycle and

-boom is the highest phase of the trade cycle- (inflation)
-Recovery is the rising phase – and
-recession is the falling phase-

Recovery leads to boom. Recession may or may not lead to depression. The volume of trade undergoes a cyclical change in the four phases.

Adam Smith is the father of economics who explained the concept of division of labour and specialisation. We know that division of labour improves labour skill, creativity and thereby raising production and productivity. Adam Smith has given several examples of this tendency. Similarly, if business transactions are split between buyers and sellers at different stages, volume of trade increases. On the other hand, if business units are vertically integrated from raw material stage to final manufacture and distribution, the volume of trade declines. In a vertically integrated business unit trade transactions do not take place. The material gets transferred from one department to another department. Therefore, trade transactions decline. If the volume of the trade is to expand the operation of independent firms is necessary. Otherwise the volume of trade declines.

3.3.4 DETERMINANTS OF PRICE LEVEL (P)

Price level is determined by interaction of MV and T variables. In the real world MV and T do not change in the same direction and proportion. M may rise but V may not rise. There may not be a change in T. MV together may increase. Several combinations and sequences of this type may affect changes in the price level. If the analysis is to be meaningful, M and V variables are to be considered together. M and V indicate the total expenditure. We need to take note of net increase in total expenditure. Sometimes net increase in expenditure may not take place because the fall in V cancels the rising M. If T and MV variables increase in the same proportion price level remains constant. T is treated as a constant variable assuming full employment. On that basis it is predicted that the increase in P will be in the same proportion as the net increase in MV. Consequently the value of money decreases in the same proportion.

3.3.5 EXPLANATION THROUGH FIGURE

Fisher's Quantity theory of money may be explained through this figure.

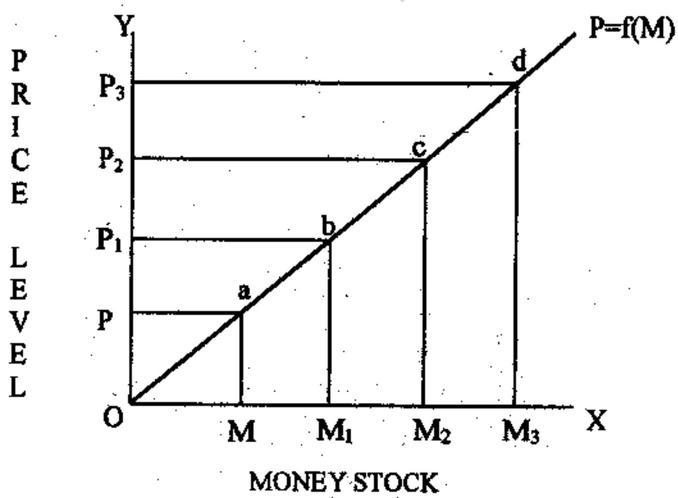
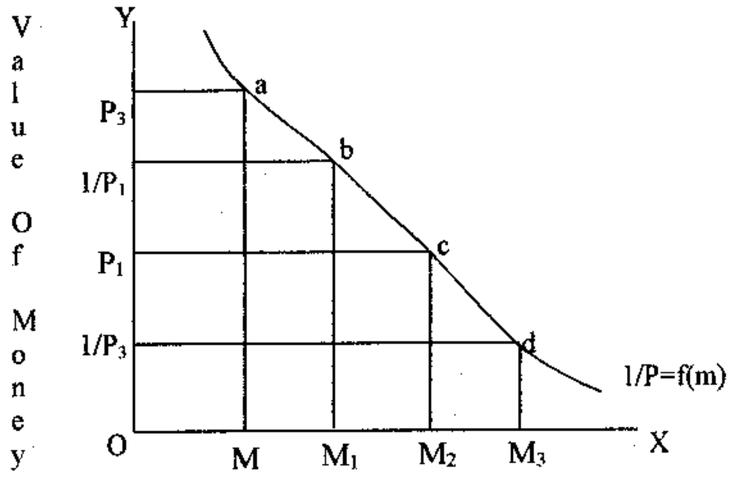


Figure – 3.2.A



Figûre – 3.2.B

On the assumption, "other things being equal", figure 3.2.A shows the proportionate, positive relationship between changes in money stock and price level. Figure 3.2.B shows an inverse relationship between money stock and the value of money. In this explanation it is assumed that the velocity of circulation of money (V) and the volume of trade are constant. X-axis of figure 3.2.A and Y-axis depict the money stock and price level. As the money supply rises to OM_1, price level goes upto OP_1. Similarly, if the money supply goes up from OM_1, to OM_1 price level rises from OP_1 to OP_2. Again the change in money supply from OM_2 to OM_3 leads to the further rise in the price level from OP_2 to OP_3. Points a, b, c and d on the straight line demonstrate the proportionate changes in money supply as result of change in demonstrate the proportionate changes in money supply as result of change in price level. In the figure 3.2.B, OX and OY axis measures money stock and the value of money. The curve in figure 3.2.B looks like a rectangular hyperbola. It shows the proportionality and neutrality between changes in money supply and value of money.

3.3.6 ASSUMPTIONS OF FISHER'S THEORY

The transactions equation of exchange proposed by Irving Fisher is based on the following assumptions.

1. Price level (P) in the equation of exchange is determined by the variables, MV and T. But price level cannot influence these variables of the equation. Hence, price level is treated as a passive variable.
2. Money Supply (MS) is exogenously determined. And there is a constant ratio between currency with the public and bank deposits.
3. According to classical economists, the economy is always in full employment and (hence) as such, no possibility of unemployment. If at all there is unemployment, it is of the frictional type.
4. Because of full employment, there is no rise in trade even if there is a rise in money supply. Hence, there is a dichotomy between the value theory and monetary theory.
5. The demand for money is proportionate to the value of trade transactions. This theory is applicable in the long-run.

3.3.7 CRITICISM OF FISHER'S THEORY

Fisher's theory is more than 90 years old. During this period of 90 years it has come across a lot of criticism. Let us note the main points of criticism.

1. Fisher's equation, MV=PT is well known. The left hand side of the equation tells us the expenditure incurred by buyers. The right hand side tells us the sum of receipts to the sellers. In the ex-post sense the value of purchases is equal to value of sales. It must be equal by definition. Hence, the equation is a meaningless tautology. However, this criticism is not fully justified. In the transposed form of the equation that is P=MV/T, there is a direct relationship between monetary expenditure (MV) and general price level (P) and an inverse relationship between T and P.

2. Fisher had stated that the price level is determined by MV and T. In his view price level is a passive factor. But this view is not correct. General price level is an active variable. It determines the level of output, saving, investment and employment. It also affects money stock and thereby it's velocity of circulation. Rise in price level increases profits, decreases real wages. It also expands trade volume.

3. The assumption of velocity of circulation of money being constant in the short run is also incorrect. In agricultural countries seasonal variations in output and employment are common. These variations influence the volume of credit and thereby the velocity circulation of money.

4. The assumption of full employment is a false one. In any country there is some degree of unemployment. In developing countries unemployment is a serve problem. It is very much present **in front of us.** Not only during the times of recession but also during normal times. It is a big social problem. Rise in monetary expenditure may lead to rise in output and employment but not necessarily rise in prices. There may be a moderate rise in prices (if at all). Therefore, full employment is the goal of monetary and fiscal policy.

5. Since full employment is not a fact, the volume of trade (T) is not constant. It rises with employment, and it decreases during depression.

6. Fisher had ignored the influence of fiscal policy in his theory. We know that taxation and public expenditure policy directly affects prices and hence his theory is incomplete.

7. According to Fisher the demand for money is a transaction demand. Money is looked upon as a medium of exchange. The Cambridge economists, especially J.M.Keynes considered the demand for money is not only for transactions, but also precautionary and speculative. Hence, Fisher's theory is an incomplete theory of demand for money.

3.3.8 INCOME FLOW EQUATION OF EXCHANGE

Fisher's equation of exchange had undergone several refinements. Income flow equation of exchange is one such refinement. It is stated thus:

$$MV_y = P_yT_y \quad \text{or} \quad P = MV_y / T_y$$

Here M = Money stock

V_y = Income velocity of money

T_y = Aggregate final goods and services (real national income)

P_y = Unit price of goods and services covered by T_y

According to this view, national income is equal to the expenditure of the people on final goods and services.

The M variable of this equation and the M variable of Fisher's equation are identical. There is no difference between them. But V_y variable is not similar to V. It is because the expenditure in the process of manufacture of goods do not enter the purview of Vy. For example, in a given period the value of average money stock is Rs. 100 crores. Further assuming that the expenditure incurred by the people on final goods is Rs. 200 crores. Dividing total expenditure by money stock we obtain V_y. That is $V_y = PV_y/M$. Hence, the value of V_y is 200/100 = 2 Rupees. T_y variable is smaller than T variable, which includes all transactions. Income flow equation $P = MV_y/T_y$ indicates income value of money. P=MV/T indicates the transaction value of money. Income flow equation of exchange is the correct measure of consumer purchasing power, rather than transaction equation.

However, income flow equation is not free from criticism. T_y variable covers only final consumer goods. It excludes producer goods. By dividing goods into two groups namely, consumer goods and producer goods and totalling the expenditure on both the goods, it is customary to analyse the factors of trade cycle. Through this type of analysis relevant policies can be formulated to check trade cycles. Inspite of this defect in the income flow equation, it is superior to Fisher's formulation. It is so because it explains price level changes due to income flows rather than changes in money stock. With this background we procced to the theory of money proposed by the Cambridge economists.

3.4 THEORY OF CASH BALANCES: CAMBRIDGE EQUATION

Many attempts were made to rectify the defects in Fisher's theory. The efforts of Cambridge economists have yielded fruitful results. Not only in monetary theory but also in the progress of economic theory Cambridge economists have played a leading role. Alfred Marshall is the originator of the Cambridge School of Economics. Pigou, J.M. Keynes and Robertson were the most prominent figures that followed Marshall. The theory of value formulated by Marshall is applicable to all commodities, including money. According to this theory the equilibrium between the supply of and demand for money determines the value of money. We know that money supply means the stock of currency with public and bank deposits. Cambridge economists ignored the velocity of circulation of money. There is a difference of opinion between Fisher's and Cambridge economists, regarding the demand for money. According to the Cambridge School, people wish to hold some cash balance not only for transaction but also for precautionary purposes. Every person or an agency holds a certain proportion of its income in the form of cash balance. Such cash balances indicate the demand by money. The aggregate cash balances constitute a certain proportion of real income. The residual part of income is in the form of term deposits, company shares, bonds and the like. It is known that cash balance is the most liquid of all assets. Therefore, a certain proportion of income in the form of cash balance is justified. It satisfies the liquidity preference. According to Cambridge equation the demand for money depends upon the liquidity preference. Given the money supply, the changes in the demand for money determine the value of money. We know that money performs many functions. Store of value is one of the functions of money. Based on this store of value function of money the Cambridge economists have formulated their theory. Hence, it is called cash balances equation. Because it is formulated by Cambridge economists it is known as the Cambridge equation. There are minor variations between the equations given from Marshall to Robertson. The essence of the Cambridge formulation may be stated in the following way.

It is M = PKT

Here M = Total cash balances

P = Unit price of goods and services
T = Real material income
K = The proportion of national income held in the form of cash.

Let us take a numerical example to explain the cause and effect relations between the variables of the equation. M = Rs. 100 crores. T = 500 units, P=1, K=0.2 (K=M/PT). If M doubles to Rs.200 and there is no change in the T and K what will happen to the value of P. The value of P rises to Rs. 2. But actually price will not increase in the same proportion as the rise in the money supply. This is due to changes in K. If the value of K rises from 0.2 to 0.3 P also rises to 1.33 (1.33 = 200/0.3 x 500). Therefore, price rise need not be in the same proportion as a rise in money stock.

K variable is the most important one in the Cambridge equation. Therefore, it is to be explained in detail. It is indicated by considering some period of time into account. It may be one year or one month or any duration of time. If one month is the duration of time the value of K = 1/12. If it is two months K=1/6. It means that, in a year people hold cash balances in national income is 1/6. If the value of K increases the volume of cash balances with the public increases. We know that V=PT/M and K=M/PT. Therefore K is reciprocal of V that is K = 1/v. Hence, all the factors that determine the V variable also act on K in an inverse way. The changes that take place in the institutional, technological, business organization, consumer behaviour increase the velocity of circulation of money, the proportion of cash balances deceases. Thus K is an index of the store of value of money. V and K are naturally inversely related.

3.4.1 CRITICISM ON CAMBRIDGE EQUATION

1. The demand for money is assumed to be unit elastic. Hence, this assumption is not useful in price determination. In the real world the demand for money is greater than unity.

2. In the Cambridge equation the demand for money excludes the speculative demand. J.M.Keynes has explained its importance. His followers have extended and elaborated this aspect.

3. In the Cambridge equation there is no place for the rate of interest. J.M.Keynes elucidated that interest is a monetary phenomenon and influences investment and thereby national income. According to Joan Robinson "a theory of money which does not mention the rate of interest is not a theory of money at all".

4. T is a measure of real income. However, goods and services differ in their quality and physical aspects. Hence, the computation of a unit price of final goods and services is difficult. Such an index number of prices is yet to be worked out.

5. The value of K is a certain proportion of national income. K and V are inversely related, the factors affecting then cannot be easily estimated. The general price level depends not only on the demand for money but also several structural changes that take place in the economy. Latin American experience provides support for this type of inflation.

6. The historical experience of trade cycles tells us that price changes are due to monetary as well as non-monetary causes. But there is not place for non-monetary factors in the Cambridge equation.

3.4.2 COMPARISON OF FISHER'S AND CAMBRIDGE EQUATIONS

Fisher's Equation	Cambridge Equation
1. Money supply is exogeneously determined.	Money supply is exogeneously determined.
2. Full employment is assumed.	Full employment is assumed.
3. Velocity of circulation of money implies the medium of exchange function of money (MV).	Cash balances indicate the store of value function of money(K).
4. There is a dichotomy (division) between the theory of value and money. Other things being equal, changes in money supply leads to rise in prices and thereby fall in the value of money (P=MV/T).	The theory of money and the theory of value are integrated in the money market. There is equilibrium between demand for and supply of money; given the supply of money, changes in demand for money influence the value of money. It means as in the case of value theory, the forces operating in the money market and bring about equilibrium are taken into account.
5. T variable takes into account all business transactions from the raw material stage to the stage of final production. If commodities are exchanged 5 times the volume of business transactions rises 5 times the prices paid for and received are averaged to arrive at p.	P refers to the prices pertaining to real national income. Therefore the scope of Cambridge P is smaller than that of Fisher.
6. Rising V leads to fall in K in the same proportion.	Rise in K leads to the fall in V in the same proportion. It means K is inversely related to V. That is $K=1/V$.
7. Fisher's equation is based on the deduction method. The variables in the equation cannot be proved. For example the value of PT can be estimated by imagination. Empirical estimation is impossible.	Cambridge equation is based on inductive method. Estimate of real national income and the final goods and services as well as their prices are given in national income accounts. Hence this theory is nearer to reality. Like wise the cash balances held by the public for transactions and precautionary expenditures can be estimated by statistical surveys.
8. There is no uncertainty about future. Hence there is no need to hold money as a store of value.	There is uncertainty about the future. A certain proportion of wealth is to be kept in the form of cash balances for meeting future contingencies.

3.5 SUMMARY

Since the advent of money in the economy, discussion on the factors that determine its value is taking place. From the time of Greeks many Pundits have stated the inverse relationship between the values of money ad its quantity. On account of discussions and writings on the subject over centuries, Crude Quantity Theory of Money came into existence. It is M = KP. It states that changes in the price level are equi-proportional to changes in money stock. Hence the fall in the value of money is in the same proportion. Irving Fisher proposed the transactions equation of exchange in 1911. It is

MV = PT or P = MV/T.

Fisher had examined the transactions velocity of circulatin of money (V) and the level of business transactions (T) and the factors that determine them. Money stock and its velocity (MV) indicates business expenditures. PT indicates business receipts. If there is no change in T changes in MV lead to change in P. If the demand for money is constant prices rise in the same direction of MV leading to fall in money value. Income flow equation of exchange is an improvement over Fisher's equation. It is nearer to reality. The efforts of Cambridge economists have resulted in the advent of a new equation. It is stated that M=PKT or P = M/KT. In this equation K variable is more prominent. K variable is based on store of value function of money. A certain proportion of income is stored in different forms. 6f all the forms of wealth, cash balance is the most liquid. If the value of K rises the value of V deceases. Other things being equal, rise in the value of K leads to a rise in the value of money. Hence, the positive relationship between K and the value of money i.e., 1/P. There are several differences between transactions equation and the cash balances equation. The former is based on the deductive method and the latter on the inductive method. The assumptions of the former are unrealistic compared with the latter. Besides institutional, technological and many other business-linked variables Cambridge equation considered human behaviour. Inspite of the superiority of Cambridge equation over the J.M.Keynes has rectified some of the defects. In the next unit we will study the theory of value of money proposed by Keynes.

3.6 CHECK YOUR PROGRESS

I. Answer the following questions in about 4 or 5 lines each.

1. What are the determinants of velocity circulation of money?
2. What is General Price Level?
3. Distinguish between deductive method and inductive method.
4. Explain the equation of Fisher.
5. Define the Real Rational Income.

3.7 GLOSSARY

Money stock : It is a stock variable. In economics we distinguish between stocks and flows. Stock concepts are meaningful with reference to a point of time. The money stocks such as M_1, M_2, M_3 and M_4 are examples. They measured at the end of July or December each year.

Velocity Circulation of Money	: It is a flow variable. The number of umes a unit of money changes hands takes time. The time may be short or long. But it must be specified. Otherwise, it is meaningless.
General Price Level	: This concept indicates the average price of all goods and services. The changes in it are noted by an index number of prices.
Trade Transactions	: In Fisher's equation all business transactions at all stages are within the scope of trade. From raw material stage to the stage of finished product and its sale are covered. Share market transactions also enter the scene.
Real National Income (T_y)	: It is the aggregate of final consumer goods and services. Multiplying T_y with unit price (P_y). We get national income ($Y = T_y \times P_y$).
Demand for Cash Balances	: Holding apart of income in the form of cash balance for future transactions and contingencies.
Deductive method	: In this method we proceed from universals to particulars. Mathematical equations belong to this approach.
Inductive Method	: This method is the opposite of deductive method. Here, we proceed from particulars to universals. This method is popular in modern monetary economics.
Vertical Business Organisations	: Business units in any industry functioning at different stages merging or integrating leads to vertical integration. When firms are integrated vertically trade transactions between them decrease. Thus the volume of T decl.ues.

3.8 MODEL EXAMINTAION QUESTIONS

I. Answer the following questions in about 30 lines each

1. Examine the Merits and demerits of Fisher's equation.
2. Examine the criticism on Fisher's equation of exchange.

II. Answer the following questions in about 15 lines each

1. Crude Quantity theory of Money.
2. Factors influencing velocity of circulation of money (V).
3. Assumptions of Fisher's equation.
4. Differences between Fisher's and Cambridge Equations.

3.9 SUGGESTED BOOKS

1. Kenneth K Kurihara : **Monetary theory and public policy,** Kaylani Publishers, New Delhi, 1989.

2. W.A.L. Coulborn : **Discussion of Money,** Longans Green and Co, London, 1950.

3. Geoffrey E J Dennis : **Monetary Economics,** Longman, London. 1981.

4. Irving Fisher : **The Purchasing Power of Money,** Macmillan, New Yark. 1911.

5. H.G. Johnson : **Macroeconomics and Monetary Theory,** Gray-Mills, London, 1971.

6. D. Wrightsman : **An Introduction to Monetary Theory and Policy,** The Free Press, New Yark, 1976.

- **Prof. G. Raghava Reddy**

UNIT- 4 : KEYNESIAN THEORY OF MONEY AND PRICES

Contents

4.0 OBJECTIVES

The main objective of this unit is to understand the Keynesian theory of money and prices.

After reading this unit, you will be able to

- know the classical theory of money and prices and further extended theory of money by Cambridge School;
- explain the Keynesian criticism of classical theory;
- understand the Keynesian theory of money and price and its merits and demerits.

4.1 INTRODUCTION

Keynesian theory of money and prices took its origin in the 1930s. It was the period of great depression. Prices of goods and services were low and falling. Unemployment was very severe. The basic assumption of classical economics was full employment to be the normal situation unemployment can be adjusted by wage cuts and full employment restored. It also established a direct relationship between the quality of money and the general price level. J.M. Keynes published his major work in 1936. It is called 'The General Theory of Employment, Interest and Money'. It is a general theory in the sense that it is applicable to all levels of employment—full employment as well as unemployment. But the classical theory is a special theory in the sense that it is applicable to full employment only. After reading this unit, you will be clear about the theory of money as formulated by Keynes and the relationship between money and prices. The demand for money and the supply of money together determine the rate of interest in the money market. Interest rate, other things given, has an effect on investment. Investment has a multiplier effect on income (output) under conditions of unemployment. After the stage of full employment increase in investment or consumption or both leads to rise in prices rather than output (income). All these relationships are explained. The differences between classical theory and Keynesian theory are noted. The merits and limitations of the Keynesian theory of money and prices are also examined in this unit.

4.2 CLASSICAL THEORY OF MONEY AND PRICES

We have studied the classical theory of money and prices in the first unit. We have noted the two approaches (a) Fisher's and (b) the Cambridge. They postulate a certain quantitative relationship between money stock and the general price level. The essence of the quantity theory of money (QTM) is that money is not wanted for its own sake but for its command over goods and services. It does not affect output of goods and services. Velocity of money is considered to be given. It is determined by forces outside the equation of exchange given by Fisher ($MV = PT$ or $P = MV/T$). Output and Velocity being constant M must bring about proportional changes in prices. Thus, in the classical theory the transmission mechanism is as follows:

$M\uparrow$ ------------> $P\uparrow$
$M\downarrow$ ------------> $P\downarrow$

Here M is the quantity of money and P is the general price level. The above transmission mechanism tells us that the increase (decrease) in money supply will result in increase (decrease) in general price level. T.M. Humphrey has stated five propositions of the classical theory. They are:

1) Proportionality between quantity of money and the general price level.
2) Neutrality of money.
3) Monetary theory of prices.
4) Causal role of money and
5) Exogeneity of the nominal stock of money.

4.3 KEYNES' CRITICISM OF CLASSICAL THEORY

J.M. Keynes differed with the five propositions of the classical theory. Let us list the arguments of Keynes against these propositions one by one.

1) Proportionality between quantity of money and the general price level is denied because of the existence of under employment equilibrium. It implies that expansion of money supply leads to expansion in output and not to a rise in prices. It is shown below :

$M\uparrow$ ---------> $O\uparrow$ and P is constant. Where M = Money supply, O = Output, P= Price level.

Further, Keynes argued that velocity of money was an unstable and unpredictable variable. Therefore, increases in money supply may be partially or fully offset by decreases in velocity of money. Also, the existence of money holdings which are sensitive to interest rates break the nexus between money and prices.

2) Secondly, **the neutrality of money proposition**. In the case of underemployment equilibrium, changes in money supply lead to changes in real variables such as (a) the natural rate of interest (b) employment and (c) income. Hence, in the Keynesian modal money is not neutral. It also implies our integration of the monetary and real sectors of the economy .

3) Next, the monetary theory of princes Keynes questioned it and argued that money is only one of the factors operating on the price level. Unit labour costs are more important in determining the price level. This approach gives rise to the "cost-push" theory of inflation.

4) **Causality of Money**: Keynes did not deny the causality of money in affecting the price level. The rate of interest is a monetary phenomenon. It largely determines the level of investment and thereby aggregate demand. Consumption also is sensitive to rate of interest. However, Keynes was clear about the role of several other factors besides money. That is why it is said that "money does not matter".

5) **Exogeneity of nominal money stock**: Keynesian analysis of the depression of the 1930s implies that supply of money is demand determined and not by the Central Bank. Historical evidence is also in favour of this version. However, the Keynesian model in the IS-LM case implies that money supply is controlled by the central bank. Hence, money stock is endogenous and nor exononeons.

4.4 OUTLINE OF KEYNESIAN THEORY OF MONEY AND PRICES

We have stated that Keynesian economics emerged in the context of the great depression. Underemployment equilibrium was the reality. Given the demand for money, an increase in the supply of money will lead to a fall in the rate of interest. The fall in the rate of interest promotes profit prospects and thereby encourages investment. Profit prospects raise the marginal efficiency of investment. Increase in money supply positively affects consumption. All these effects lead to rise in aggregate demand.

In the original Keynesian model, the following is the transmission mechanism of monetary expansion:

M↑ ---------> r↓ -----------> I↑ -----------> Aggregate demand ↑→

Employment and Income ↑

Given the liquidity preference (demand for money) increase in money supply (M) leads to a decrease in the rate of interest (r). Given the marginal efficiency of investment, fall in the rate of interest leads to a rise in the level of investment. Hence, aggregate demand increases. Because of unemployment, an increase in aggregate demand leads to a rise in employment and income. Fall in the rate of interest and rise in income leads to a rise in propensity to consume(C↑). Rise in C also leads to a further rise is aggregate demand. A rise in employment and income goes on until near full employment is reached. Once near full employment stage is reached, price level will go up in proportion to the increase in aggregate demand. We will take up the different aspects of the Keynesian theory of money and prices one after another. Afterwards, we will consider its merits and demerits.

4.4.1 KEYNESIAN THEORY OF DEMAND FOR MONEY

According to Keynes money is demanded because of three motives: (a) the transactions motive (b) the precautionary motive and (c) the speculative motive. Modern economies are money economies. The receipt of money incomes and money expenditures of consumers and producers (firms) do not synchronize. There is a time gap. Hence, money holdings are kept for business transactions. Transactions demand for money is primarily determined by income. Keynesian transactions demand for money is equivalent to the classical theory of demand. It is given below:

$$Mt = K_1Y$$

K_1 depicts the proportional relationship between money income (Y) and the transactions demand(M+).

Precautionary motive for money arises because of uncertainty over the exact size or pattern of expected receipts and disbursements. The demand for pre-cautionary balances is given as follows:

$$M_p = M_p (P_y, r, C) = K_2Y$$

Here Mp = Precautionary money balances, Py = Money income, r = Rate of interest, C= Cost of liquidity, K2 = Constant proportional relationship. Generally, Mt = Mp = M_1. Hence, M_1 includes money balances for transactions and precautionary purposes. The relationship between income (Y) and the transactions and precautionary balances (M_1) is shown is figure- 4.1.

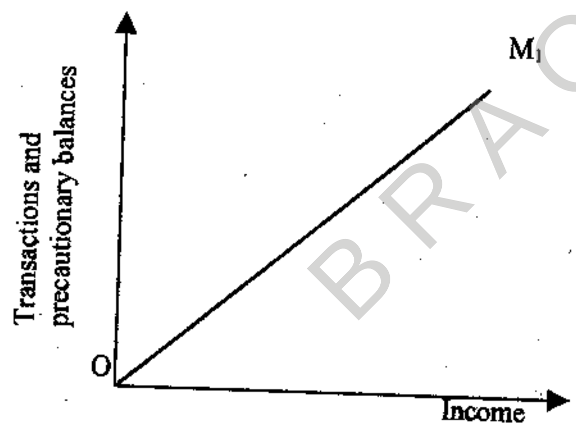


Figure - 4.1: Transactions and Precautionary demand for money

Speculative Motive: It explains why public hold surplus cash over and above that demanded due to other two motives. Cash balance is considered to be an alternative for interest bearing bonds or income earning securities security prices generally fluctuate leading to capital gains or losses. Fluctuations in security prices are tied to market rate of interest. When market rate of interest rises security prices fall. Conversely, if market interest rate falls security prices rise. Hence, security prices vary inversely with the market rate of interest. Speculative demand for money is a function of the rate of interest: The speculative demand for money is shown in figure - 4.2.

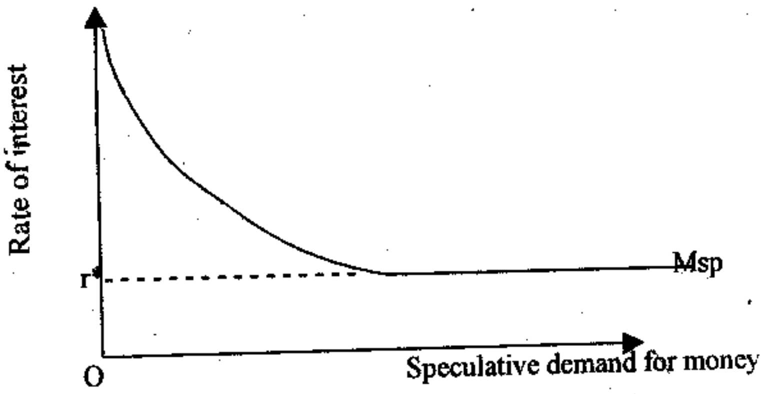


Figure: 4.2 Speculative Demand for Money

Note: At r* rate of interest idle balances are held in money. The demand for money with reference to this interest rate becomes infinitely elastic. It is known as liquidity trap.

Under this condition interest rate will not fall due to monetary expansion. Hence the ineffectiveness of monetary policy.

Keynes postulated that the lower the current rate of interest the move rapidly people expect it to rise and hence they would like to hold their resources in money. At higher rates of interest, the demand for speculative balances would be smaller. Thus the speculative demand for money is a function of the rate of interest: Msp = f(r). There are two kinds of speculators in the market, bulls and bears. Bulls expect bond prices to rise in future and buy bonds parting with liquidity. Bears expect bond prices to fall. They prefer selling bonds and holding cash. The demand for money can be written as follows:

$$M^d = f(Y, r)$$

Here. Y represents money income and r the rate of interest. We have not yet considered how the rate of interest is determined. Let us look into that aspect.

4.4.2 KEYNESIAN THEORY OF INTEREST

According to the classical economists the rate of interest is determined by the interaction of the demand for and supply of savings. Saving involves the sacrifice of consumption. The demand for savings is guided by gainful investment opportunities. But in the Keynesian system interest rate is determined in the money market. The supply of money is generally controlled by the central bank of the country. The demand for money arises on account of the three motives. They are already explained. Figure - 4.3 shows how interest rate gets determined and how it changes.

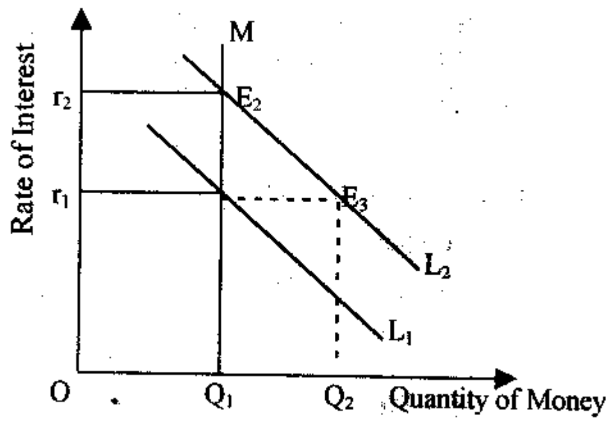


Figure: 4.3 Determination of interest rate

Given the supply of money (M) and given the level of demand for money (liquidity preference) the point of intersection at E_1 results in fixing the rate of interest at r_1. A rise in liquidity preference from L_1 to L_2 leads to an increase in the interest rate from R_1 to r_2. The reason for is that to satisfy the increased desire to hold money a higher premium must be paid because money supply is given. At r_1 rate of interest the new demand for money exceeds the supply of money by Q_1 Q_2. Interest rate has to rise to bring about equilibrium between the new demand for money and its supply. Hence, interest rate goes up from r1 to r2. Given the new demand for money (L_2) if money supply can be expanded from Q_1 to Q_2 the rate of interest can be reduced to r_1 one again ($r_1 = E_3$). This can happen if there is a decline of liquidity preference from L_2 to L_1 even if there is no increase in money supply. Thus, according to Keynes, interest rate is essentially determined in the money market.

4.4.3 INTEREST RATE AND LEVEL OF INVESTMENT

The decision to invest is influenced by two factors: (a) the current rate of interest and (b) the expected rate of profit. The current rate of interest is the rate of interest paid to overcome people's liquidity preference. The expected rate of return is a percentage rate of return on capital invested. Keynes called the expected rate of return as marginal efficiency of capital. So long as the rate of interest is lower than the expected rate of return, investment is worthwhile. Otherwise, there is no sense in borrowing to finance the investment. Given the marginal efficiency of capital, the lower the interest rate, the larger the volume of investment. It is shown in figure 4.4.

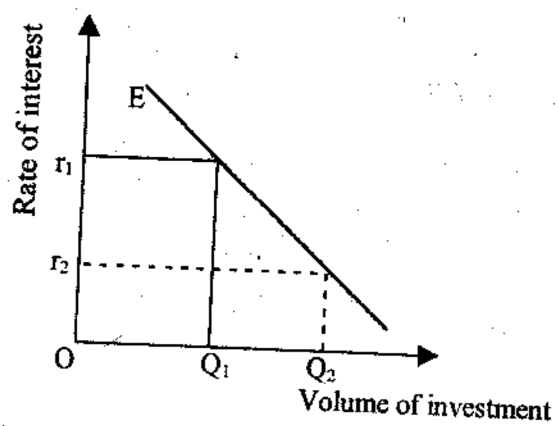


Figure 4.4: The Interest Rate and Investment with a given Marginal Efficiency of Capital.

In figure 4.4. the E curve stands for the efficiency of capital. Other things being equal. it constitutes the demand for capital. At r_1 rate of interest, investment is Q_1. As the interest rate decreases from r_1 to r_2, the volume of investment increases from Q_1 to Q_2. Low interest rate is advocated for several reasons.

1) It has a healthy effect on capital market and therefore on investment.
2) It is conductive for long term capital formation.
3) It facilitates loan-financial public investment.
4) Low interest rate is more expedient than wage reduction in solving unemployment.

4.4.4 MARGINAL EFFICIENCY OF CAPITAL

We have already noted the meaning of marginal efficiency of capital. If the general demand for capital is inelastic with reference to interest rate, no downward change in the interest rate will stimulate investment. Marginal efficiency of capital (MEC) has to rise. Given the interest rate, the higher the MEC, the larger the volume of investment. Figure 4.5 illustrates this proposition.

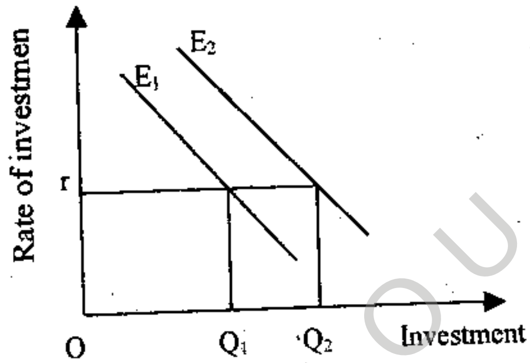


Figure 4.5 The MEC and Investment given the rate of interest

In figure 4.5 the MEC curve shifts upwards to the right from E_1 to E_2. It implies an increase in the demand for capital. As a result, the volume of investment increases from OQ_1 to OQ_2, the interest rate will remain equal. In the short-run MEC cannot be raised significantly, because of technological and general economic variables remain constant. Hence, lowering the interest rate may be a realistic alternative. It may be noted that this is also not possible under conditions of "liquidy trap".

4.5 CONSUMPTION FUNCTION

Consumption function indicates the relation between C and Y in the income equation Y= C+I. It states that consumption is a function of income i.e. C=f(Y) consumption represents the amount of consumer expenditures made at a given level of income. The propensity to consume is a schedule of consumer expenditures at various income levels. Figure 4.6 illustrates the functional relationship between consumption and income.

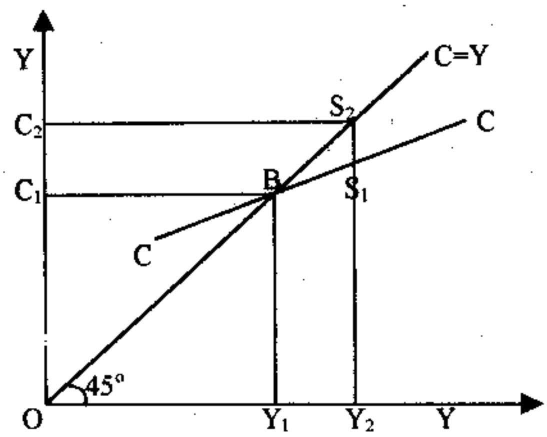


Figure 4.6 The propensity to consume

In figure 4-6, the C axis measures consumption expenditures and the Y axis measures national income. The 45° line indicates that consumption and income are equal to one another. The C curve represents the propensity to consume. It moves upward to the right. This movement indicates that consumption increases as income rises. B is the break even point. At income Y_1 consumption and income are equal ($OY_1 = OC_1$). As the income rises to Y2 consumption also rises to C_2. But the amount of consumption (OC_2) is smaller than the income (OY_2). The portion of the income not consumed is saved (S=Y-C). Saving is indicated by the vertical distance between S_1 and S_2 at income Y_2. Before the breakeven point, saving is negative because consumption is highly than income.

The average propensity to consume (APC) is the ratio of consumption to income or C/Y. In terms of figure 4.6 it means that APC is a single point on the C curve which indicates the proportion of income consumed. The APC declines as it moves along the C curve to the right. It is seen from the flattering C curve measuring the declining proportion of consumption to income. More than the APC, the marginal propensity to consume (MPC) is more significant in the Keynesian theory. MPC is defined as the ratio of the change in consumption to the change in income. It can be found by dividing an increase (or decrease) in consumption by an increase (or decrease) in income i.e. $\Delta C/\Delta Y$. For example if income increases by Rs. 100 crores and consumption increases by 80 crores, the MPC = 0.8 MPC is the slope of the C curve in figure 4.6. On the basis of certain assumptions Keynes reasoned that the propensity to consume remains constant. Hence, Keynes stressed on the crucial role of investment in filling the gap between income and consumption.

4.6 AGGREGATE DEMAND

The theory of effective demand formulated by Keynes is a departure from the classical approach. It explains the relevant variables that cause changes in aggregate demand and thereby national income determination. It examines the causes for demand deficiency and therefore, suggests ways and means of increasing and stabilising aggregate demand. Keynes formulated his theory of effective demand in the context of a closed economy. In such a situation there are three components in aggregate demand (AD). They are:

1. Consumption expenditure

Consumption is generally stable as explained earlier.

2. Private investment

It fluctuates drastically. It rises during prosperity and decreases during depression. Given the MEC it depends upon the market rate of interest.

3. Autonomous investment

It is Governments' consumption and investment expenditure. It is independent of the economic variables. Hence it is an exogenous variable. It is shown below through figure 4.7.

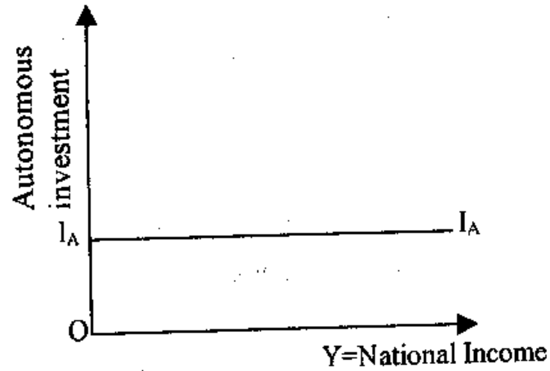


Figure 4.7 Autonomous investment

Autonomous investment is undertaken by the government as a supplement to private consumption and investment. The purpose is to either economic stabilisation or economic growth or both. It does not necessarily depend upon economic variables. It is mainly a political decision.

All the three components namely consumption, private investment and autonomous investment put together constitute aggregate demand. Hence, AD = C +Ip + Ia or simply C+I. We will explain how aggregate demand determines the level of employment of output or the general price level. It is shown through figure 4.8.

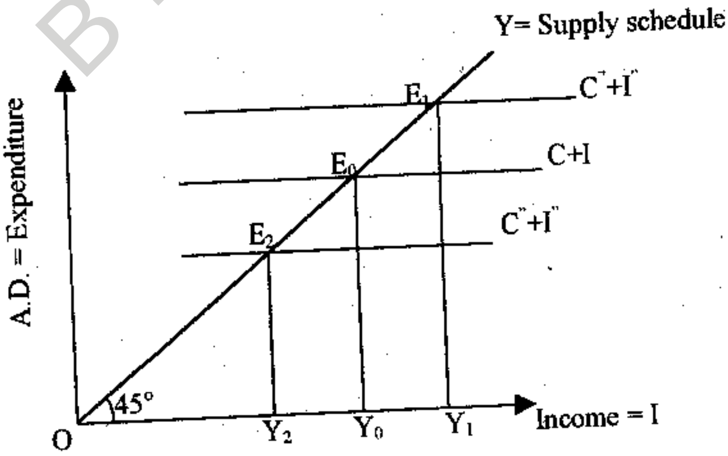


Figure 4.8 Aggregate demand and employment

In figure 4.8, the vertical axis measures the aggregate demand (A.D). It is the total expenditure incurred on consumption and investment. The horizontal axis measures the national income or output. The 45° line represents the supply schedule. It is identical with income. Demand schedule, C+I intersects the 45° line at E_o. It indicates the balance between

AD and AS (AS is the aggregate supply) as the level of full employment (Y_o). If AD increases, as shown by schedule C^1+I^1, we get over employment Y_1. It is a situation where output cannot rise because of full employment, but because of excess demand prices rise. Inflationary gap comes in. It is measured by the vertical distance between E_0 and E_1. Schedule $C'' + I''$ gives under employment income, Y_2 deflationary gap arises. It is measured by the vertical distance between E_0 to E_2. This type of analysisis helpful to understand the impact of AD on output and price level at different levels of employment. In the context of depression, Keynes advocated more autonomous investment (public spending) in order to increase aggregate demand to narrow the deflationary gap.

The collapse of MEC will depress private investment. The reduction in the rate of interest may fail to induce investment. Hence, the ineffectiveness of monetary policy. Fiscal policy is more effective and therefore Keynes advocated more public spending.

Leaving aside situations of depression and prosperity, let us see how monetary expansion works. An increase in money supply leads to a fall in the rate of interest which will stimulate investment. If there is unemployment of resources, increased investment results in increase in output. Price level is not affected. But as soon as full employment is attained, prices will increase. Even before full employment stage general price level might rise due to:

a) non-homogeneity of factors of production
b) diminishing returns
c) resources being non-interchangeable
d) rise in labour costs etc.

Hence, as AD increases output rises from a low level at a proportionate level and then after full employment goes up slowly. Afterwards no rise. So also is the case with employment. It is shown in figure 4.9 (a and b).

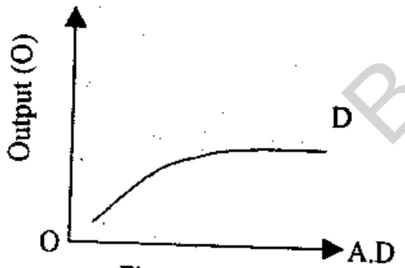


Figure – 4.9(a)

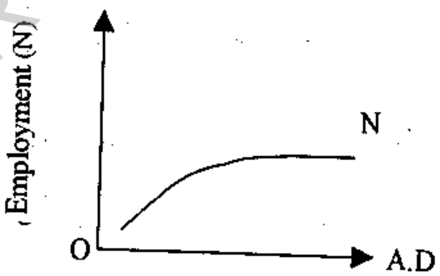


Figure – 4.9(b)

Figure – 4.9(a) shows that the output curve rises at a faster pace at low level of AD but after full employment, output rise falls gradually to zero. Figure – 4.9(b) also demonstrates the same tendency with respect to employment (N).

Similarly, starting from low level of effective demand, as AD rises price level (P) first rises slowly. But as near full employment is approached it rises rapidly. Similar is the case with wages (W). These tendencies are shown in figure 4.10(a,b).

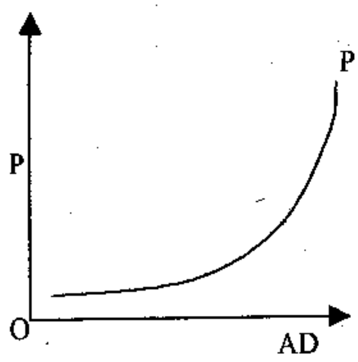


Figure 4.10(a)
Aggregate demand and price level

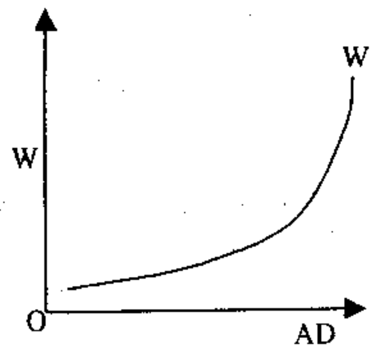


Figure 4.10(b)
Aggregate demand and wage level

It is clear from figure 4.10 a and b that expansion in money supply working through effective demand initially raises the price and wage level slightly and afterwards rapidly.

4.7 MERITS OF KEYNESIAN THEORY OF MONEY AND PRICES

There are several merits associated with the Keynesian theory of money and prices. Let us note a few of them.

a) His theory explains the effect of money supply on price level through its effect on effective demand and employment.

b) It takes into account demand and supply aspects and thereby integrates monetary theory in the value theory.

c) It considers cost of production. Production costs rise after an advanced stage. It provides scope for cost-push approach to inflation.

d) It throws light on the nature of inflation at different levels of employment.

e) It brings into account the effect of money supply on the rate of interest and thereby investment.

f) It is useful the economic stabilisation. There are also a few limitations of the Keynesian theory. They are:

   i) It emphasises the short-run. According to him in the long run we are dead.

   ii) Its foundations are psychological rather than statistical.

   iii) It is a static analysis rather than dynamic.

4.8 DIFFERENCES BETWEEN THE CLASSICAL AND KEYNESIAN THEORY OF MONEY AND PRICE

There are several basic differences between the Classical and Keynesian theory of money and prices. Most of them arise on the basis of assumptions made by them. The formulation of the theory is also different in explaining the monetary and real variables. Let us sketch the most important differences pertaining to the two approaches to money and prices.

Table – 4.1 Differences between Classical and Keynesian theory of money and prices

S.No.	Classical Theory	Keynesian Theory
1.	It is a special theory. It is applicable to situations of full employment.	It is a general theory. It is applicable to all levels of employment.
2.	It is based on Say's law of markets. i.e. supply creates its own demand.	It is based on deficiency of demand especially in a period of depression
3.	Neutrality of money is assumed.	Neutrality of money is not assumed.
4.	The theory of money and the theory of value of separated.	The theory of money and the theory of value are integrated.
5.	Quantity of money and price level is directly and sometimes proportionately connected.	Price level is affected by not only monetary variables but also cost of production.
6.	Rate of interest is determined by supply of and demand for savings.	Rate of interest is determined by supply of money and demand for money.
7.	Demand for money is a function of income i.e. Md = f(Y)	Demand for money is a function of income and rate of interest i.e. Md=f(Y,r)
8.	Unemployment can be cured by wage cuts.	Unemployment cannot be cured by wage cuts. It can be tackled by increasing investment.
9.	Balanced budget policy is advocated.	Deficit budgeting is advocated to increase effective demand.
10.	It is based on the efficacy of market mechanism.	It is based on the failure of the market and therefore public intervention.
11.	Thrift and saving are glorified.	Paradox of thrift is pointed out.
12	Price flexibility i.e. absence of price-cost rigidities is a general solution to instability.	Downward price and wage adjustments are not feasible. They may not solve instability also.

4.9 SUMMARY

The Classical theory of money and prices is embodied in the quantity theory of money (QTM). QTM postulates a certain quantitative relationship between money supply and the general price level. The transmission mechanism is direct from money to prices :

M↑ -----------> P↑
M↓ -----------> P↓

But in the Keynesian formulation it is established through several linkages between the monetary and real variables. Monetary expansion and its effect is shown here :

$$M\uparrow \rightarrow r\downarrow \rightarrow P\uparrow\rightarrow$$

Aggregate demand ↑→employment and income ↑ under conditions of underemployment. But under situations of full employment, rise in aggregate demand due to monetary expansion results in an inflationary gap. Hence, monetary expansion leads to expansion in output under certain situations of underemployment and rise in prices as fullemployment approaches. Several factors contribute to the emergence of these effects. Aggregate demand consists of consumption and investment i.e. Y = C+I. Since, C is constant in the short run, "I" has to be manipulated. Private investment is determined by the interaction of MEC and the rate of i erest. In the short run MEC is also given. In a period of depression it gets depressed. Through monetary policy money supply is to be increased to get a reduction in the rate of interest. The demand for money is assumed to be not so constant. If the demand for money rises interest rate may not full. Even if the inters rate falls investment may not be responsive. Hence, monetary policy becomes ineffective, fiscal policy is needed to promote investment. That is why Keynes has remarked, "money does not matter".

4.10 CHECK YOUR PROGRESS

I. Answer the following questions in about 4 or 5 lines each.

1. Explain the classical theory of money and prices.
2. State and explain the major propositions of the classical theory.
3. What are the arguments of Keynes against the propositions of the classical theory?
4. Elucidate the Keynesian theory of demand for money.
5. Explain the relationship between the rate of interest and investment.
6. Examine the different components of effective demand.
7. What is an inflationary gap?
8. List the merits of the Keynesian theory of money and prices.

4.11 GLOSSARY

Money supply : Sum of total currency in circulation plus bank demand deposits (M_1) plus savings bank time deposits (M_2). Money is a stock concept.

Market failure : A phenomena that results from the existence of market imperfections such as lack of knowledge. It fails to realise the beneficial results. It provides justification for government intervention to promote or retard consumption or investment or both.

Marginal propensity to consume : The change in consumption due to change in income i.e. $\Delta C/\Delta Y$. The higher the MPC the higher is value of the multiplier.

Investment : That part of national expenditure devoted to

		production of capital goods over a given period of time. It is a flow concept.
Interest rate	:	The amount that a borrower must pay a lender expressed as a percentage of the amount borrowed. If a person borrowed Rs. 100 for one year and after one year repays Rs. 112, the interest rate is 12%.
Inflation	:	The phenomenon of rising prices as reflected in consumer and whole sale price indices.
National Income	:	Total monetary value of final goods and services in an economy over a given period, usually a year.
National Expenditure	:	In a closed economy, it is the sum of expenditure on consumption (C) investment (I) and government (G). If G is included under C and I, Y or E = C+I. It is also called aggregate demand (AD).
Closed Economy	:	An economy without foreign economic transactions. In the context of globalisation, such economics do not exist.
Cost-Push Inflation	:	Inflation that results from upward pressurs of cost of production such as wage rise.
Marginal Efficiency of Capital (MEC)	:	The expected rate of return on investment.
Liquidity Trap	:	That part of demand curve for money which is infinitely elastic. Monetary expansion cannot reduce the rate of interest in this part of the curve.

4.12 MODEL EXAMINATION QUESTIONS

I. Answer the following questions in about 30 lines each

1. Examine the criticism against the Classical monetary theory of prices.
2. Explain the Keynesian theory of money and prices.
3. Explain the differences between the classical and Keynesian theory of money and prices.

II. Answer the following questions in about 15 lines each

1. State and explain the major propositions of classical theory of money and prices.
2. Explain the components and importance of aggregate demand.
3. State the merits of Keynesian monetary theory of prices.
4. What is the role of interest rate in investment promotion?
5. What is meant by MEC? Examine its importance.

4.13 SUGGESTED BOOKS

1. Dwayne Wrightenman : **"An Introduction to Monetary Theory and Policy"**, The Free press, New York, 1976.

2. Kenneth K. Kurihara : **"Monetary Theory and Public Policy"**, Kalyani Publishers, New Delhi, 1989.

3. E.W. Laidler : **"The Demand for Money"**, Dun-Donnelly, New York, 1977.

4 A.H. Hansen : **"Monetary Theory and Fiscal Policy"**, Mc. Graw-Hill, London, 1949.

5. G E J Dennis : **"Monetary Economics"**, Longman, London, 1981.

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- Prof. G. Raghava Reddy

UNIT – 5 : FRIEDMAN'S QUANTITY THEORY OF MONEY

Contents

5.0 OBJECTIVES

The main purpose of this unit is to explain the Quantity theory of money formulated by Milton Friedman.

After reading this unit, you will be able to:

- explain the Quantity theory of Friedman;
- examine the policy implications of monetarism;
- distinguish between the classical QTM and Friedman's QTM and also the approaches between Keynes's and Friedman;
- examine the criticism against Friedman's theory;
- know the determinants of demand for money and role of monetary policy in a modern economy.

5.1 INTRODUCTION

Milton Friedman is the leader of Chicago School and a Nobel laureate. The Classical quantity theory of money suffered a setback due to Keynesian attack on it. Keynesian theory of money and prices became the most widely accepted doctrine. However, after Milton Friedman's contributions to **quantity theory of money,** monetarism became prominent. The crucial role played by money in the modern economy is widely accepted. There are several reasons for the emergence of monetarism associated with Friedman. We will mention only a few of them. In the post second world was period, both inflation and unemployment were witnessed in many parts of the world. Monetary management was called for tackling them. Various definitions of 'money supply' is unsettled. Various definitions (concepts) of money supply are applied in empirical studies of monetary economics. The empirical results naturally differ. Comparability becomes a problem. Hence, issues of monetary management remain debatable. Now let us examine Friedman's analysis of Quantity theory of money.

Friedman's analysis of the Quantity theory of money (QTM) is a theory of demand for money. It is not a theory of output or money income or the price level. In the traditional form quantity theory of money determines price level. In the neo-classical form it determines money income. Friedman argued that money is an asset – a unique one. The demand for money and other commodity such as apples. Likewise, the demand for money depends upon a given budget constraint, on its price, the price of closely related assets and on tastes. It may be expressed like this:

$$Mdt = f(Wt, Pmt, Pit, u)$$

Here, Md is demand for money. W is wealth. It represents the budget constraint. Pm is the price is money. Pi is the price of other assets t is the time period. U is a taste variable. Friedman's is a wide ranging function. It is a departure from the simple Keynesian function – $Md=F(Y.i)$. There are several similarities between the two approaches. However, the differences are more significant. The specification of the different factors that determine the demand for money, the transmission of monetary mechanism, the role of interest in it differ significantly. Let us take up the theory of Friedman and analyse it. Comparisons of Friedman's theory with that of classical and Keynesian theory are made as the end to contrast the picture.

5.2 DEMAND FOR MONEY BY WEALTH HOLDERS

Friedman separates the demand for money by ultimate wealth holders' and by business enterprises. This division is similar to Keynes' distinction between transactions and finance motives. Finance motive relates to speculative motive. We will consider the theory of demand for money by ultimate wealth holders to start with.

The budget constraint in the Friedman's model is wealth. He defines it as $W = Y/r$. Here, W stands for wealth. Y/r represents flow of given income from wealth divided by interest rate. The use of wealth in the demand function for money is the most important development in monetary theory. If wealth increases the demand for money rises. It is because money is the liquid of all assets (wealth). It is also treated as a normal good. We may show this relationship between wealth and demand for money through Figure 5.1.

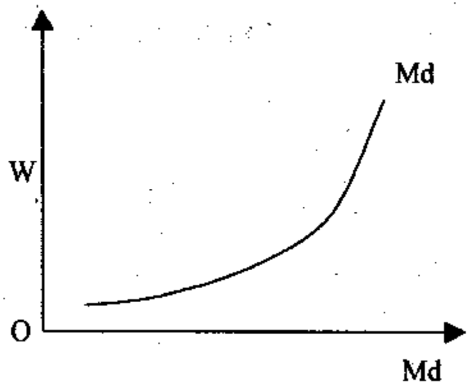

Figure - 5.1: Relationship between wealth and demand for money

Figure 5.1 shows the positive relationship between wealth and demand for money. It resembles the supply curve of micro economic theory. But empirical study of wealth needs a proxy as it consists of several different forms. Some of the forms of wealth are highly liquid like gold and others less liquid like landed property in villages. Therefore, some estimate of permanent income is often made and used in empirical studies.

5.2.1 DISTINCTION BETWEEN NON-HUMAN AND HUMAN WEALTH

Friedman distinguishes between non-human and human wealth. Individuals hold non-human wealth in different forms of assets. These assets are of varying liquidity such as cash, gold, durable goods such as cars, houses and real estate. An individual's human wealth represents his skill, experience, education and training. Human wealth is an important component of an individual's stock of wealth. However, human wealth is illiquid. It is non-marketable. Non-human wealth can be bought and sold. For certain forms of non-human wealth like gold and other precious metals, there is always a ready market. With the income generated by the sale of such assets or any other asset, new forms of human wealth can be acquired. For example: Parents are sending their children for higher education especially engineering by selling away their lands and gold. Friedman argues that the ratio of non-human wealth to human wealth (Ω) is to be considered as Ω falls, the proportion of human wealth in the total stock of wealth rises. Since human wealth is illiquid the demand for money rises along with the fall in Ω. This relationship is shown in figure 5.2.

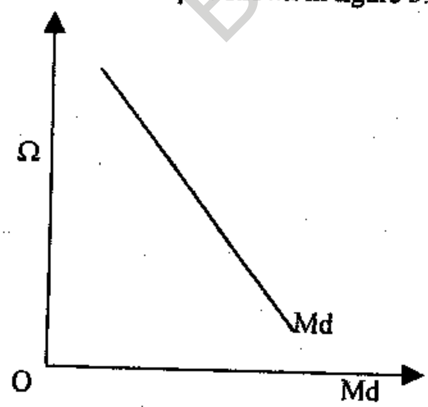

Figure 5.2 Fall in Ω and Demand for Money

Figure 5.2 shows the increase in demand for money due to the fall in the ratio of non-human wealth to human wealth (Ω). Therefore, like the demand curve, the demand for money slopes downwards from left to right. It implies a negative relationship between Ω and demand for money (Md).

5.2.2 RATES OF RETURN ON MONEY AND OTHER ASSETS

The demand for money is influenced by the relative rates of return on money and other substitute assets. We have noted that wealth can be held in a number of forms apart from money. The relative rates of return on such wealth forms are to be taken into account in the analysis of demand for money. The alternative wealth forms are bonds, equities, physical goods and non-human wealth.

5.2.2.1 RATE OF RETURN ON MONEY

The normal return on money holding is assumed to be zero. But this assumption is invalid for two reasons. (1) Certain bank deposits are classed as money and yield and interest return. But this is usually ignored in the monetarist approach. (2) When the price level is changing ($\Delta P/P$) the real rate of return on money holding will be non-zero. If the price level rises the value of money falls giving a negative rate of return on money holdings. On the other hand, if there is a fall in the price level, the value of money goes up yielding a positive rate of return on money holdings. Therefore, the rate of change in price level is the rate of return on money holding. If the price level goes down by 5 percent, rate of return on money is 5 percent. If the price level goes up by 5 percent the rate of return on money is – 5 percent. Hence, the rate of return on money is $\Delta P/P$. Hence, we have to consider both the price level (P) and the change in price level $\Delta P/P$.

5.2.2.2 THE RATE OF RETURN ON BONDS

The rate of return on bonds is in two parts. (1) A bond yields a fixed interest return (rb). (2) Its capital value may change, i.e. it may become positive or negative. The capital gain on bond is denoted by 1/rb. drb/dt. Here 1/rb is the price of the bond. When drb/dt is negative the bond price is rising. The total return from bond holding is rb – 1/rb.drb/dt. Other things being equal, when the return from bond holding is increasing demand for money decreases. The relatively higher rate of return from bond holding induces the wealth holders to buy bonds by parting with liquidity preference. It may be shown through figure- 5.3.

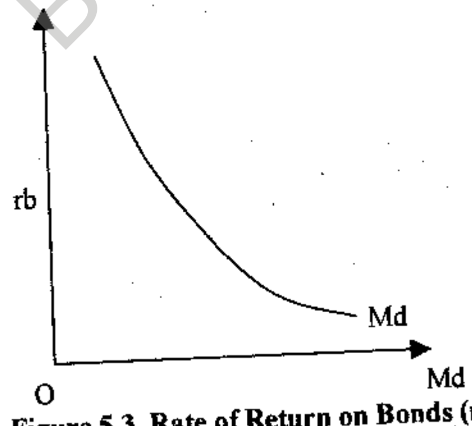

Figure 5.3 Rate of Return on Bonds (rb) and demand for Money

It is clear from figure 5.3 that there is a negative relationship between the rate of return from bond holding and demand for money. Other things being equal, the higher rate of return from bond holding induces wealth holders to go in for bonds by parting in the money holdings. This part of the analysis is similar to Keynesian approach to speculative demand for money.

5.2.2.3 RATES OF RETURN ON EQUITIES

Friedman gave importance to wealth holding in the form of equities. An equity provides the wealth holder with a stream of income of constant 'real' amount. It, therefore, includes a purchasing power clause to maintain the real income stream. Hence the return on equity is re – 1/re.dre/dt + 1/p.dp/dt

The higher the return on equity (re) the lower the demand for money.

5.2.2.4 RATES OF RETURN ON PHYSICAL ASSETS

Wealth held in the form of physical assets such as cars and buildings provides a return in kind. They render services of transport and shelter. Also the real value of physical assets change as the price level changes. Friedman used 1/p.dp/dt to represent the return from holding physical assets. The higher the return from physical assets the lower the demand for money.

5.2.2.5 TASTES AND PREFERENCES

Friedman considered tastes and preferences (u) as another element of demand for money function. As in the case of microeconomic demand theory, tastes are assumed to be given in the short run. Similarly, in the case of demand for money also tastes are assumed to given as they are governed by many institutional factors.

Hence, the demand for money by wealth holders money be expressed as follows:

$Md = f(W, \Omega, p, \Delta P/P, rb, re, u)$

Here, W= wealth, Ω = ratio of non-human to human wealth, rb = rate of return on bonds, re = rate of return on equities, p = price level, $\Delta P/P$ = rate of return on money and physical assets, u = tates and preferences.

Since W is represented by its proxy i.e. permanent income (Yp), it is substituted generally in the place of W.

5.3 DEMAND FOR MONEY BY BUSINESS UNITS

For business enterprises money is like any other productive resource. The demand for money by business units is similar to that of ultimate wealth holders. However, wealth term is less useful for business units. It is replaced by volume of transactions (T). U variable is broadened to include technological production functions. The demand for money by business enterprises may be expressed like their:

$Md_f = f(T, P_{mt}, P_{it}, U)$

Ω is dropped because it is not relevant here. Pmt stands for the return on money, Pit for return on other assets at any period of time. T stands for volume of transactions.

5.4 FULL DEMAND FOR MONEY FUNCTION

The demand for money may be aggregated across all wealth holders and business enterprises in this way.

$Md = f(Yp, \Omega, p, \Delta P/P, rb, re, u)$

Here Md = demand for real money holdings, Yp = permanent income, Ω = ratio of non-human to human wealth, p = price level, $\Delta P/P$ = price change, rb = return on bonds, re = return on equities, u = tastes and preferences as well as technological conditions.

5.5 TRANSMISSION MECHANISM OF MONEY

In Friedman's model, money is considered to be non-neutral. It influences output, transactions and prices. Money supply is exogenous and dominates any impulse on nominal income (PT). These assumptions make the quantity theory of money of Friedman a monetary theory of nominal income. Let us examine the process in which a change in money supply affects economic variables.

In the case of Keynes, the choice is between money and bonds. Here, portfolio adjustment involves a wider choice covering both financial and real variables. Several goods and services enter the scene. Money is a substitute but not necessarily a close substitute for all sorts of assets. Even then disturbance in monetary equilibrium will cause portfolio adjustment. It is assumed that money supply is exogenously fixed. The demand for money is stable. There is monetary equilibrium to start with. Under these conditions, if there is an increase in money supply (ΔMs) there will be excess money holdings in the economy. It is shown this way:

$$\frac{Mse + \Delta Ms}{P} > Mde/P$$

Here, Mse and Mde represent equality of money supply and money demand i.e. monetary equilibrium. ΔMs represents increased money supply and P represents price level.

How to restore monetary equilibrium is the problem. Given the stability of demand for money, price level must rise to restore monetary equilibrium. It is shown this way: Ms_1/P_1 = Mdi/Pi. Adjustment is supposed to take place through the purchase of a wide range of assets. The rise in the demand for these assets results leads to the increase in their prices. This induces individuals to hold nominal cash balances willingly. Monetary equilibrium is restored through 'riffle effect' on the different asset markets.

The classical economists have examined the effect of increased money supply on prices in a mechanical way. $M\uparrow \rightarrow P\uparrow$. In their model output is fixed due to the assumption of full employment. In the Keynesian model the entire effect of monetary expansion is on output due to underemployment equilibrium. But according to monetarists of Friedman school monetary expansion affects output as well as prices. Let us see how it takes place. Monetary expansion increases the demand for factors of production. For instance let us examine the case of increased demand for labour. Increased demand for labour leads to a rise in money wages. Consequently, supply of labour also increases. This leads to rise in output. In this contest cost of production goes up. Product prices go up. Real wages remain unchanged. Supply of labour falls. Employment and output decline to their natural levels. Prices rise as supply of goods and services lags behind demand. Hence, employment, output and other real variables are affected in the short run. In the long run, nominal variables such as nominal income, interest rates and prices are affected.

5.6 POLICY IMPLICATIONS OF MONETARISM

There are several policy implications of the monetarism of the Friedman variety. Let us mention some of them.

1) Income velocity of money is the key relationship in macroeconomics. Hence, money supply is the crucial policy variable. Monetary expansion and monetary contraction are crucial for economic stabilisation. Money matters. Sometimes money alone matters.

2) The demand for money is stable. It is a stable function of a limited number of factors of which permanent income is the most important one.

3) Interest rates are not considered to be that important in the determination of the demand for money.

4) Discretionary monetary and fiscal policy is destabilising. Monetary targeting is advocated.

5.7 DISTINCTION BETWEEN THE CLASSICAL QTM AND FRIEDMAN'S QTM

There are many differences between the classical quantity theory of money and that of Friedman's. Let us examine some of the points of difference between them.

1) The Classical QTM did not show the possibility of substitution between money and non-money assets. Friedman's QTM shows a wider scope for substitution between many and all other assets both financial and real.

2) The Cambridge equation of QTM treated K as a constant. (K represents the proportion of money income that the public desires to hold in the form of cash + balance). This made the relationship between K and Y mechanical. In the case of Friedman, it is a stable function and explains the monetary transmission mechanism whereby a change in money supply gets translated into a change in Y.

3) The Classical QTM was a theory of prices. Full employment and therefore output were assumed to be given. Money supply expansion affects price level. In the Friedman model, QTM is a theory of demand for money.

4) The demand for money in the case of Irving Fisher was only for transactions. The Cambridge school emphasised the store of value function of money. But Friedman analysed the demand for money taking into account several variables.

5) The Classical quality theory of money was more hypothetical and theoretical Friedman's theory is both theoretical and empirical. He found permanent income elasticity of demand for money to be at 1.8 percent for the period 1974-1954 in the USA. It implies that 1 percent increase in permanent income would cause 1.8 percent increase in demand for money. Thus, he found the income elasticity of demand for money to be more than proportionate. Further, he calculated the demand for real money balances and income i.e. M/P and Y to be 0.99. He found the demand for money to be a stable function of prices and income.

6) The Classical QTM was based on the assumption of neutrality of money. But this assumption was rejected by both Keynes and Friedman. Monetary and real variables were integrated through monetary transmission mechanism.

5.8 DIFFERENCES BETWEEN THE APPROACHES OF FRIEDMAN AND KEYNES

Let us examine the major points of difference between the approaches of Keynes and Friedman to monetary theory.

1) According to Keynes monetary expansion affects output and prices through its effect on the rate of interest. But according to Friedman increase in money supply affects prices and yields on assets directly.

2) According to Keynes, given the liquidity preference, the demand for money is determined by the rate of interest. But according to Friedman the demand for money is determined by the desired real balance.

3) Keynes had in mind two asset models, money and bonds. But Friedman's is a multi-asset model.

4) According to Keynes monetary expansion leads to a fall in the rate of interest. The exception is the case of liquidity trap. But according to Friedman fall in the rate of interest occurs only in the initial stage. But subsequently, due to economic expansion, rate of interest goes up. Therefore the net effect of monetary expansion is to raise the nominal rate of interest.

5) The major difference between monetary and Keynesians is that consumer expenditure is stimulated directly along with expenditure on capital goods instead of being induced indirectly through the multiplier effects of investment.

5.9 CRITICISM AGAINST FRIEDMAN'S THEORY

1. A major point of criticism against Friedman's theory is the way in which he defines money supply. It is broadly defined. It includes commercial bank time deposits also. It is equal to M_2 in India. When money is narrowly defined (M_1) income elasticity of demand for money will not be as high as 1.8. (M_1 includes currency with the public and demand deposits with banks).

2. Friedman's use of broadly defined money has another limitation. It leads to an understatement of the effect of interest on the demand for money. It is known that currency and demand deposits are non-interest bearing assets. But time deposits earn interest. Consequently when interest rates go up including interest rates on time deposits, the demand for currency and demand deposits falls. But the demand for time deposits rises. If the increase in time deposits is combined with the decrease in currency and demand deposits, the net decrease in the total is smaller than the decrease in currency and demand deposits alone. It is for this reason Milton Friedman found the interest rate to have a weak effect on the demand for money.

3. Friedman's argument that the interest rate varies in the same direction as the money supply is questioned by the Keynesians.

4. According to Friedman money above matters in explaining major economic fluctuations. But this contention is questioned by his critics. They opine that money also matters.

5. Historically money supply is not independent of changes in prices and incomes. But Friedman assumed it to be independent. Money supply itself is determined by prices and incomes as it also determines prices and incomes. Thus the causation is both ways.

6. Friedman relegates fiscal policy to the background. But Fiscalists do not agree with his logic.

7. The concept of 'permanent income' is theoretically sound. But there are no statistics on such income. It is to be estimated.

point inflation for the week ended on 1st June, 2002 was 1.5%. It means compared to the prices prevailing in the week ended on 1st June, 2001, the prices now are higher by 1.5%.

6.6 EFFECTS OF INFLATION

At the outset, it should be noted neither inflation nor deflation is good. Both are rogues and harm the economy, and therefore, they should be banished. However, there is some evidence that a mild and very slow increase in prices is conducive for higher investment, production and employment. During periods of inflation certain classes of people may gain or lose temporarily. In the long run, probably none gains from inflation. During rising periods of prices, debtors of money gain and creditors of money (banks, money lenders etc.) lose because value of money decreases. Generally businessmen and producers gain. Fixed money incomists like contract labour or contractors lose. Inflation has inherent tendency to shift incomes and wealth from the poor to rich class. Capitalists as a class will gain from inflation. By redistributing income from the poor to rich, inflation adversely affects living standards of the poor. The worst sufferers of inflation are the agricultural labourers, asset less poor and the unemployed.

6.7 CONTROL OF INFLATION---SHORT RUN AND LONG RUN

As inflation is a multi-faceted phenomenon, it is not easy to banish it. It is noted that inflation occurs when demand exceeds supply. From this it can be inferred that inflation can be controlled either by reducing demand or increasing supply. It means inflation can be **constrained** through either demand management or supply management or both. However, the best solution to inflation is to raise production and productivity. But this is possible only in the long run by providing adequate infrastructure facilities, effecting innovations in production techniqués and providing inputs including credit and marketing facilities. In the short run, it can be **constrained** by focusing attention mainly on demand management and partly on supply management. Fixing minimum prices and wide spread network of public distributing system are essential for price control. Though control of hoarding and black marketing, rising prices can be arrested. One of the temporary but quickest methods to control inflation is to import the goods. which are in shortage. This is not a desirable method in the long run because imports require foreign exchange and the latter can be obtained only when a country is able to produce more and export more.

Demand can be managed through suitable macro economic policy. A mix of monetary and fiscal policies may be used. Rationing bank loans, raising interest rates and reducing money supply are monetary tools to control inflation. A reduction in public expenditure through reduction in subsidies and activities of public enterprises will reduce money incomes of the people leading to reduced demand and prices. Taxation is another measure to reduce public demand for goods and services. The ultimate solution to inflation lies in faster growth through reduced costs ad increased productivity.

6.8 SUMMARY

This unit took a view the problem of the multi-faceted problem of inflation and discussed its various aspects. Inflation means increased prices but every rise in price may not constitute inflation. Sustained increase in prices over time is called inflation. It is a situation is which general level of prices or average price level rises or value of money falls. It is not proper to define it as too much money chasing too few goods because without reference to money, inflation can be analysed. The concepts of deflation, disinflation, reflation and stagflation are discussed. Also you were explained partial and full inflation following JM Keynes. It is noted depending on the intensity, inflation may be called creeping, walking or galloping. Inflation is explained variously and we have today quite a few theories. The oldest explanation is in terms of quantity theory. There are demand pull and cost push explanations. Structurilists, Post Kenynesians and Phillips forwarded alternative explanations. The root cause of inflation is the structure of economy and pattern of investment. Wrong pattern of investment is the root cause of inflation. Money is not originating but aggravating factor of inflation. Deficit financing or increased money supply by itself is not bad. Inflation depends on the purpose for which it is used.

Inflation is measured as a rate per period. It is measured both in terms of WPI and CPI. While general inflation is measured in terms of WPI, urban inflation is measured with the help of CPI industrial workers and rural inflation in terms of CPI agricultural labour. On point basis also inflation can be measured. In the short period, during periods of inflation debtors lose and creditors gain. All fixed money incomists undergo loss. Businessmen, producers and capitalists gain. Inflation redistributes wealth and income from the poor to rich. As inflation is a multi-faceted phenomenon, it cannot be controlled easily. A multi-pronged attack is needed. It can be tackled through demand or supply management. Fiscal and monetary tools are used to reduce inflationary pressures. Imports quickly address inflation problem but it is unsuitable in the long run. The best solution to inflation is raising production and productivity which is possible in the long run.

6.9 CHECK YOUR PROGRESS

I. Answer the following questions in about 4 or 5 lines each.

1. What is inflation?
2. Explain the differences between inflation and stagflation.
3. Explain the Phillips curve inflation.
4. List the effects of inflation.

6.10 GLOSSARY

Inflation	: Sustained increase in prices overtime.
Stagflation	: Co-existence of high unemployment and high inflation or rising unemployment with rising prices.
Point to Point Inflation	: Rise in prices during a given week, month etc. in the current period and compared to the prices in the same period in the previous year.
Phillips Curve Hypothesis	: It correlates inflation and unemployment and postulates trade off in controlling inflationary unemployment. It says that the relation between inflation and unemployment is opposite.

2. Geoffrey E.J. Dennis : **Monetary Economics,** Longman, London, 1981.

3. Milton Friedman : **The Quantity Theory of Money: A Restatement, Studies in the Quantity Theory,** Chicago University Press, 1956.

4. Laidler : **DEW, Demand for Money: Theories and Evidence,** Dun Donnelly, New York.

- Prof. G. Raghava Reddy

UNIT – 6 : THEORIES OF INFLATION

Contents

6.0 OBJECTIVES

The aim of this unit is to explain you various aspects of a universal problem, called inflation.

After reading this unit, you will be able to:

- know the meaning of inflation and other related concepts;
- explain the various causes to the inflation and theories developed on the inflation; and
- explain how the inflation is measured and why inflation be controlled?

6.1 INTRODUCTION

In the previous unit, you learnt construction of index numbers and measurement of changes in prices. During the two periods considered, you noticed changes in prices in the upward direction. You may ask questions such as why do prices change, which classes are affected adversely and how is inflation measured? This unit is intended to answer these questions and other related aspects. Inflation has been a major problem of concern almost in all the countries and in particular, in the developing countries. Different economists, from time to time, suggested methods to tackle the issue. Modern governments explicitly aim at control

5.10 SUMMARY

Friedman's quantity theory of money is basically a theory of demand for money. Friedman identifies four important determinants of the demand for money. They are (1) permanent income (2) level of prices (3) the rate of return on money and other assets and (4) the rate of increase in the price level. Varieties in the first two determinants cause demand for money in the some direction. Movements in the last two determinants cause the demand for money in the opposite directive. With price level variations the variations in money demand is proportional. With variations in real income the variation in money demand is more than proportional. There are several differences between the classical and Keynesian quantity theory of money and that of Friedman. However, there are also a few similarities between the Keynesian and Friedman's theory. If we assume Ω and U of Friedman's equation as constant and treat price level and price level changes as given and equate rb and re with i, then Friedman's demand for money gets reduced to two determinants only i.e. Yp and i. In the case of Keynes Y represents absolute income and Yp of Friedman represents permanent income. If they are equated i.e. Y=Yp then there is no difference between the demand function for money of Keynes [Md=f(Y,i)] and that of Friedman [Md = f(Yp, i)]. But this is an over simplication. We need to take into account all the determinants identified by Friedman into account. Monetary transmission mechanism directly operates on the economic variables and thereby makes monetary policy more effective in economic stabilisation.

5.11 CHECK YOUR PROGRESS

I. Answer the following questions in about 4 or 5 lines each.

1. What are the determinants of demand for money according to Friedman?
2. How is wealth classified by Friedman? And why?
3. Examine the relationship between the ratio of non-human wealth to human wealth (Ω) and demand for money.
4. How do the rates of return on money and other assets influence the demand for money?
5. Explain the demand for money by business enterprises.
6. How is monetary disequibrium corrected?
7. Explain the monetary transmission mechanism of the monetarists.

5.12 GLOSSARY

Asset Ownership : Ownership of a wide variety of assets, financial and physical, human and non-human that generate income for owners.

Asset Substitution : Use of one asset by replacing another asset: Example withdrawing demand deposits and purchasing company shares.

Income Elasticity of Demand for Money : The responsiveness of the quantity of money demanded to changes in income. It is measured by proportionate change in money demanded to proportionate change in income. It may be stated thus: $(\Delta md/md)/(\Delta y/y)>0$

Model : An analytical framework used to portray functional relationships among economic variables.

Monetarism : It is the view that money supply is the principal determinant of levels of output and employment in the short and price level in the long run.

Monetary Equilibrium : The balance between money supply and money demand : Ms = Md.

Monetary Transmission Mechanism : It is the process by which money supply changes impinge upon major macro economic variables.

Money Supply : Sum of total currency in circulation plus bank demand deposits (M1) plus savings bank time deposits (M2). It is a stock concept.

Real stock of Money : It is the real amount of money demanded i.e. Md/P.

Real Rate of Interest : It is equal to the nominal interest rate minus the rate of inflation i.e. R = i – P.

Permanent Income : A properly weighed average of past, present and future incomes.

Portfolio Adjustment : The exchange of one type of asset for another asset with a view to maximising income and wealth.

5.13 MODEL EXAMINATION QUESTIONS

I. Answer the following questions in about 30 lines each

1. Examine the salient features of Friedman's theory of demand for money.
2. Explain the monetary transmission mechanism of Friedman.
3. Outline the quantity theory of Money of Friedman and compare it with the earlier ones.

II. Answer the following questions in about 15 lines each

1. How is the demand for money by business firms determined?
2. What are the different assets that can be substituted for money? Explain.
3. Compare the QTM of Friedman with the QTM of classicals.
4. What are the major points of criticism against the QTM of Friedman? Explain.

5.14 SUGGESTED BOOKS

1. Dwayne Wrightsman : **An Introduction to Monetary Theory and Policy,** The Free Press, New York, 1976.

of inflation through various policies and tools. As it has serious effects, everybody is concerned with and discusses the issue. Since the 1960s, a new problem has been faced, especially by the developed countries called stagflation. This unit helps you to understand the problem in its various dimensions.

6.2 MEANING OF INFLATION

Although the term inflation is frequently used by many people and is discussed very often, many do not understand its exact meaning and causation. Although inflation means a rise in prices, every increase in price is not inflation. Similarly, deflation means a fall in prices but every decrease in price does not constitute deflation. For instance, due to temporary difficulties in transport, disturbances, bandhs, strikes etc. immediately prices may rise or fall. However, once normalcy is restored, previous prices are likely to prevail. Therefore, every rise in price is not to be equated with the inflation. Seasonal or occasional increases in prices should not be called inflation. Then what is inflation? Inflation refers to a situation wherein there is a sustained increase in the level of prices **overtime**. It thus means continuous or persistent rise in prices and not once-over change. Inflation is a state of affairs in which value of money falls or prices are rising. Sometimes, it is wrongly defined as a situation wherein too much money is chasing too few goods. Strictly speaking, inflation can be understood without reference to supply of money. We shall return to this later.

6.3 RELATED CONCEPTS OF INFLATION

You have noted that inflation and deflation are opposite concepts, denoting rise and fall in prices respectively. You may briefly note the meanings of disinflation and reflation and stagflation. When prices are rising, governments take measures to reduce them, this is called disinflation. It is the process of reversing inflation without causing reduction in employment or output and it is affected deliberately. Like rising prices, falling prices are also not good for an economy. Therefore, when prices are decreasing, to give encouragement to the market, governments take measures to mildly increase prices. This is called reflation. It is deliberately undertaken to redress bad effects of deflation. It is a type of controlled inflation. Under reflation, prices rise slowly and gradually.

According to JM Keynes, inflation is a post-full employment phenomenon. It means prices do not increase so long there is unemployment. Because, existence of unemployment means that there are idle resources---men, material and machines. For any reason if demand increases, sooner production also increases and prices do not increase. However, Keynes admits that in the later stages of expansion, price leave may increase due to certain bottlenecks. This increase in prices before full employment is not **real inflation,** but may be called "bottleneck inflation". Put differently, there are **partial** and **full** inflation. The rise in prices upto the level of full employment may be called partial inflation because the increase in prices induces increase in production. This is the situation in developing economies. When prices rise after full employment, as production does not increase, it is called full inflation. This is the situation in developed economies with near full employment.

Inflationary Recession or Stagflation is relatively a recent phenomenon faced from the 1960s. The term stagflation is formed by combining two words---stagnation and inflation. Stagnation means no growth or constancy and, inflation means rise in prices. Under Stagflation, economy undergoes stagnation or unemployment along with high inflation. It refers to co-existence of high unemployment and high level of prices or rising unemployment with rising prices. It is held that generally prices rise after full employment. However, since the 1960s many countries are facing rise in prices even before full employment and with much unemployment. This peculiar problem is called stagflation.

There are variants of inflation depending on degree of rise in prices. They are creeping, walking and running or galloping inflation. When prices rise slowly it is creeping inflation. When the rise in prices is considerable, it is called walking inflation. When increase in the price is substantial and prices rise from day to day, it is called galloping or running inflation.

6.4 EXPLANATION OF CAUSES OF INFALTION AND THEORIES

Today we have at least five broad explanations of inflation. They are: quantity theory, demand pull, cost push, structuralist, Phillips curve, Post-Keynesian explanations.

6.4.1 CLASSICAL THEORY OF QUANTITY OF MONEY

For a long time, the concept of inflation was understood in terms of Classical theory of money called **Quantity Theory.** Classicals assume neutrality of money. It means that money serves as medium of exchange only and does not affect real economy. Money is simply an intermediary, facilitating sale and purchase transactions and has no impact on production. Therefore, when money supply rises, it simply pushes up prices. It treats inflation as a purely monetary phenomenon. In the recent decades, Milton Feedman supports the view that inflation everywhere and anywhere is a monetary phenomenon.

It is said that inflation means too much money in the context of too few goods. Classical economists like Fisher, based on certain assumptions, rewrite the identity of PT=MV as a function---P=f(MV/T). Here P stands for Average Prince, "f" the function (simple meaning of function is that the left hand side variable P depends on the right hand side variables of M,V,T), T = Number of Transactions, V = Velocity of Circulation (or number of times a unit of currency changes hands during a period) and M denotes Quantity of Money. Assuming only M changes and V, T do not change, the classical theory states that P will change in proportion to changes in M. It means, double the supply of money, double will be prices and vice versa. This theory is probably true in the long run, where full employment is likely to exist without technical progress. Its application to short period is very limited.

6.4.2 DEMAND-PULL EXPLANATION

It is pointed out that inflation occurs whenever demand for goods and services is pulled over and above what the economy can bear in the short-run. Suppose in the short-run an economy has capacity to produce and supply say, 100 units. If the immediate demand is more than 100 units, prices rise. The question now is why the demand is pulled above the capacity of the economy? There are two variants of explanations to this question. While one is given by quantity theorists, another is given by Keynesians. As noted earlier, economists who supported quantity theory argue that demand is pulled by increased supply of money. Since they identify supply of money as the causative factor, the solution to inflation lies in reducing quantity of money in circulation. Keynesians too hold that when demand is pulled above what the economy can bear, prices rise. However, the reason for increase in demand is different. They say that due to rise in autonomous government expenditure and investment, demand is pulled up pushing prices upward. since they identify investment as cause, to control inflation the expenditure of the government is to be reduced.

6.4.3 COST-PUSH EXPLANATION

Not only a rise in demand raises prices, an autonomous increase in costs of production also raises prices. This is called cost-push explanation. It is a situation wherein prices rise due to increase in factor prices. It occurs when production factors get higher money incomes more than their real productivity. According to this approach, inflation is due to an increase in production costs. It is quite possible for various reasons interest cost or profit cost or wage cost may rise. Since price depends on costs, a rise in the constituents of production cost will push up prices. In oligopoly situation, businessman raise their mark up (rate of profit) and thereby total cost of production is pushed up. Due to this prices rise. Also when prices rise, to protect standard of living, workers agitate for rise in wages and in oligopoly situation with strong trade unions, workers succeed in getting higher money wages. The increased money wages will increase total cost of production and sets in motion forces causing further increase in prices. This is called wage sets in motion forces causing further increase in prices. This is called **wage spiral**. Similarly, an autonomous increase in raw materials costs also will lead to rise in prices.

It is important to remember that the demand-pull and cost-push explanations are not mutually exclusive. Once prices rise due to excess demand (demand-pull), it soon leads the economy into cost inflation. When consumer goods prices increase, workers demand higher wages leading to rise in cost of production. Also due to demand inflation, prices of raw materials may increase. Thus, it is difficult to draw line between demand and cost inflation. Often they go together aggravating the problem. It is held that the actual inflationary process contains some elements of both demand and cost inflation. During an inflationary process, both demand pull and cost push factors simultaneously operate. Inflation may be caused either by increase in demand or cost but it cannot be sustained if both are not operating.

6.4.4 STRUCTURALISTS EXPLANATION

Structuralists like Gunnar Myrdal and Streeten argue that for the less developed countries aggregate analysis is not useful, because of the market imperfections and lack of proper coordination among different sectors. In these countries what is prevailing is not one general inflation but sectoral inflation situations. They are structurally backward, characterised by rigidities, and hence they do not quickly respond to price and profit signals. In these nations, and hence they do not quickly respond to price and profit signals. In these nations, the very process of development leads to inflation and most of the increase in prices is due to structural deficiencies. Also, simultaneously, shortages are seen in some sectors while others have excess capacity. Consequently, in the former prices rise and in the latter they fall. Economic development requires constant changes in the form of production, in economic and social structure, and in pattern of income distribution. Failure to make these changes in time or adequately leads to maladjustments and stresses which release latent and powerful inflationary forces.

6.4.5 PHILLIPS-CURVE EXPLANATION

AW Phillips of Britain, based on empirical data, proposed in 1958 what is known as Phillips-Curve Hypothesis. It postulates inverse relation between inflation and unemployment. Phillips curve slopes from left to right downwards, indicating opposite relating between rate of change in money wages or prices and rate of unemployment. According to the hypothesis, to have low inflation or stable prices, an economy should tolerate high unemployment. If it desires low unemployment, it should not mind for high level of inflation. The postulated trade off between inflation and unemployment is challenged by many economists, especially by Milton Fredman. The latter says that there is not trade off between controlling inflation and unemployment. He says that the long run Phillips curve is a vertical straight line and not downward sloping curve.

6.4.6 POST-KEYNESIANS EXPLANATION

In explaining inflation, Post-Keynesians attach importance to institutional factors (or property ownership), social classes (class-structure) and autonomous investment controlled by profit recipients. They hold that institutional factors determine distribution of income between wage and profit-earners. They view inflation as a consequence of conflict over income shares among 4 major groups viz. workers, capitalists, government and foreign sector. Each attempts to secure a large part of the income in the shape of wages, profits, taxes and import prices/interest/profits respectively. Further, the conflict among the different groups and the response of money supply causes inflation.

In summing up the explanations, let us note the root cause of inflation. Inflation is a multi-faceted. phenomenon affected by many factors---economic and non-economic, internal and external. It is known that prices rise or fall when demand for goods and services is not equal to their supply. If demand exceeds supply, prices rise and conversely if supply exceeds demand deflation occurs. But why demand is greater or lesser than supply? Answer to this question is the real explanation of inflation. Given the institutional structure, it is the pattern of investment the determines inflation. This is the main or originating factor of inflation. If the given total investment is allocated in a balanced way between short and long gestation projects, and productive & unproductive activities, demand and supply will be in equality. **Therefore, prices neither increase nor decrease.** Money is not originating factor but aggravating cause. it is admitted that without increase in money supply, inflation cannot be sustained. It is wrong to say that deficit financing or increased money supply, by itself, causes inflation. What is important is not so much the quantum of money but for what purpose the quantity of money was used. If the deficit financing or increased money supply was used for productive purpose with balanced pattern of investment, it will not lead to inflation, but on the other hand it reduces inflation.

6.5 MEASUREMENT OF INFLATION

For practical purpose, inflation is to be measured. It is measured as a rate or percent per period. There can be a variety of inflation rates depending on the time period chosen. Unless otherwise indicated, one-year time is considered in measuring inflation rate. To measure inflation rate, average prices are to be calculated. For this purpose, as noted in Unit 2, there are two broad standards---wholesale and retail price index numbers. Popularly they are called Wholesale Price Index (WPI) and Consumer Price Index(CPI). In India, inflation is measured both in WPI and CPI. Within CPI there are three variants viz. CPI for Industrial Workers, CPI for Urban Non-Manual Employees and CPI for Agricultural Labour. For general purpose, it is measured in WPI. To know changes in cost of living of common people and to know urban inflation, it is measured in CPI Industrial Workers. On the other hand, CPI Agricultural Labour is used to measure rural inflation. Annual inflation rate is worked out on the basis of average change in the prices in 52 weeks. There is another measure---**point-to-point inflation.** It is measured as change in prices on a given day, week, month, quarter or end of a month in the current year, compared to the same day, week etc. in the previous year. For example, the average inflation rate in India during 2001-02 (52 weeks) is 3.6%. It means, if the average price in the previous year 2000-01 is 100, in the current year it is 103.6. Point to point inflation for the week ended on 1st June, 2002 was 1.5%. It means compared to the prices prevailing in the week ended on 1st June, 2001, the prices now are higher by 1.5%.

6.6 EFFECTS OF INFLATION

At the outset, it should be noted neither inflation nor deflation is good. Both are rogues and harm the economy, and therefore, they should be banished. However, there is some evidence that a mild and very slow increase in prices is conducive for higher investment, production and employment. During periods of inflation certain classes of people may gain or lose temporarily. In the long run, probably none gains from inflation. During rising periods of prices, debtors of money gain and creditors of money (banks, money lenders etc.) lose because value of money decreases. Generally businessmen and producers gain. Fixed money incomists like contract labour or contractors lose. Inflation has inherent tendency to shift incomes and wealth from the poor to rich class. Capitalists as a class will gain from inflation. By redistributing income from the poor to rich, inflation adversely affects living standards of the poor. The worst sufferers of inflation are the agricultural labourers, asset less poor and the unemployed.

6.7 CONTROL OF INFLATION---SHORT RUN AND LONG RUN

As inflation is a multi-faceted phenomenon, it is not easy to banish it. It is noted that inflation occurs when demand exceeds supply. From this it can be inferred that inflation can be controlled either by reducing demand or increasing supply. It means inflation can be **constrained** through either demand management or supply management or both. However, the best solution to inflation is to raise production and productivity. But this is possible only in the long run by providing adequate infrastructure facilities, effecting innovations in production techniquês and providing inputs including credit and marketing facilities. In the short run, it can be **constrained** by focusing attention mainly on demand management and partly on supply management. Fixing minimum prices and wide spread network of public distributing system are essential for price control. Though control of hoarding and black marketing, rising prices can be arrested. One of the temporary but quickest methods to control inflation is to import the goods, which are in shortage. This is not a desirable method in the long run because imports require foreign exchange and the latter can be obtained only when a country is able to produce more and export more.

Demand can be managed through suitable macro economic policy. A mix of monetary and fiscal policies may be used. Rationing bank loans, raising interest rates and reducing money supply are monetary tools to control inflation. A reduction in public expenditure through reduction in subsidies and activities of public enterprises will reduce money incomes of the people leading to reduced demand and prices. Taxation is another measure to reduce public demand for goods and services. The ultimate solution to inflation lies in faster growth through reduced costs ad increased productivity.

6.8 SUMMARY

This unit took a view the problem of the multi-faceted problem of inflation and discussed its various aspects. Inflation means increased prices but every rise in price may not constitute inflation. Sustained increase in prices over time is called inflation. It is a situation is which general level of prices or average price level rises or value of money falls. It is not proper to define it as too much money chasing too few goods because without reference to money, inflation can be analysed. The concepts of deflation, disinflation, reflation and stagflation are discussed. Also you were explained partial and full inflation following JM Keynes. It is noted depending on the intensity, inflation may be called creeping, walking or galloping. Inflation is explained variously and we have today quite a few theories. The oldest explanation is in terms of quantity theory. There are demand pull and cost push explanations. Structurilists, Post Kenynesians and Phillips forwarded alternative explanations. The root cause of inflation is the structure of economy and pattern of investment. Wrong pattern of investment is the root cause of inflation. Money is not originating but aggravating factor of inflation. Deficit financing or increased money supply by itself is not bad. Inflation depends on the purpose for which it is used.

Inflation is measured as a rate per period. It is measured both in terms of WPI and CPI. While general inflation is measured in terms of WPI, urban inflation is measured with the help of CPI industrial workers and rural inflation in terms of CPI agricultural labour. On point basis also inflation can be measured. In the short period, during periods of inflation debtors lose and creditors gain. All fixed money incomists undergo loss. Businessmen, producers and capitalists gain. Inflation redistributes wealth and income from the poor to rich. As inflation is a multi-faceted phenomenon, it cannot be controlled easily. A multi-pronged attack is needed. It can be tackled through demand or supply management. Fiscal and monetary tools are used to reduce inflationary pressures. Imports quickly address inflation problem but it is unsuitable in the long run. The best solution to inflation is raising production and productivity which is possible in the long run.

6.9 CHECK YOUR PROGRESS

I. Answer the following questions in about 4 or 5 lines each.

1. What is inflation?
2. Explain the differences between inflation and stagflation.
3. Explain the Phillips curve inflation.
4. List the effects of inflation.

6.10 GLOSSARY

Inflation	:	Sustained increase in prices overtime.
Stagflation	:	Co-existence of high unemployment and high inflation or rising unemployment with rising prices.
Point to Point Inflation	:	Rise in prices during a given week, month etc. in the current period and compared to the prices in the same period in the previous year.
Phillips Curve Hypothesis	:	It correlates inflation and unemployment and postulates trade off in controlling inflationary unemployment. It says that the relation between inflation and unemployment is opposite.

6.11 MODEL EXAMINATION QUESTIONS

I. Answer the following questions in about 30 lines each

1. Distinguish between inflation and reflation and deflation and disinflation.
2. Explain the meaning of inflation and how does it occure?
3. State the causes to inflation.
4. What are the effects of inflation and methods to control if 'Explain'.

II. Answer the following questions in about 15 lines each.

1. What is inflation? How do you measure it?
2. What do you mean by the cost-push inflation.
3. How does post Keynesian's define inflation?

6.12 SUGGESTED BOOKS

1. MC Vaish : **Money Banking and International Trade**
2. ML Seth : **Macro Economics,** Lakshmi Narain Agarwal, Agra, 1998.

- Prof. S. Kishan Rao

BLOCK – II : COMMERCIAL BANKING

This block does not particularly discusses about the genesis of commercial banking and it various functions that are performed by the commercial banks in the Modern Economy- but also explains the rules and regulations of Banking and how credit is created by them and its importance.

This block contains the following 2 units,

Unit – 7: Commercial Banking – Functions and Changing Role
Unit – 8: Credit Creation by Commercial Banks

UNIT - 7 : COMMERCIAL BANKING - FUCTIONS AND CHANGING ROLE

Contents

7.0 OBJECTIVES

The main objective of this unit is to study the commercial banking, its function and its role.

After reading this unit, you will be able to

- understand the concept and the evolution of modern banking;
- assess role of banking in the economic growth;
- identify functions of commercial banks; and
- assess changing role of commercial banks in the modern days.

7.1 INTRODUCTION

Everyone from a student to a pensioner talks about banking and carries out transactions with banks. Banks have been an integral part of their lives. What is a bank? A bank is an institution, which deals with money. Banks attract deposits from the public that have surplus money and lend the same to others who are in deficit of money. Thus, just like a lake where there is both inflow and outflow of water, a bank is a financial intermediary into which money flows in and money flows out. These deficit financial intermediaries not only serve as a saving intermediary but also offer transaction deposits (cheque writing deposits) which are used as medium of exchange. In a way, bank is a market where money is bought and sold for a price viz., interest rate. People prefer to keep their money in a bank because they repose confidence in the bank that it will keep their money safe. In fact, it is this confidence in a bank which is the prerequisite for the successful functioning of any bank. The bank does its business with others' money obtained through deposits. The secret of their business lies in the fact that the bank collects higher interest on their lending and pays less interest on the deposits. The difference between the two constitutes the profit margin for the banks.

7.2 EVOLUTION OF THE MODERN BANKING

There is no unanimity among the economists about the origin of the word 'bank'. Some believe that the word was derived from the German word 'banc' which means a joint stock firm. Some believe that the word was derived from the Greek word 'bankque' which indicates a 'bench'. In Greek and Rome money lenders were known as 'benchers' as they used to keep their coins on the bench for the purpose of changing one type of money into another.

The origins of modern commercial banking are traceable to ancient times. The New Testament mentions about the activities of moneychangers in the temples of Jerusalem. In ancient Greece, around 2000 B.C. the famous temples of Ephesus, Delphi and Olympia acted as the store-houses for precious metals and for money lending transactions. The Priests of these temples acted as the financial agents. They lent money for public and private purposes at interest, though they paid none themselves. In the course of time private moneylenders also entered the scene. The money banking business suffered a setback with the fall of Roman Empire. During the medieval ages lending was largely in the hands of the Jews. The medieval Church regarded Usury as an unpardonable sin for a Christian. With the development of trade and commerce, the Christians also took up the money lending business.

The first bank on modern line viz., the Bank of Venice was founded in 1157 A.D. Following this the Bank of Barcelona and the Bank of Geneva were established in 1401 and 1407 respectively. In 1609 the Bank of Amsterdam and in 1090 the bank of Hamburg were established. The Lombard people of Italy who migrated to England and other parts of Europe were mainly responsible for the development of modern banking in Europe. During the reign of Queen Elizabeth – I, the banking system was well developed. But during the reign of King Charles – I, large gold-holdings were seized from the merchants. Charles – II also imposed several restrictions on the business of goldsmiths and ordered them to deposit their excess funds with the 'Exchequer'. The Bank of England was established in 1694. But the joint stock Commercial Banking started flourishing only after the passage of Banking Act of 1833 in England.

7.3 GENESIS OF MODERN BANKING IN INDIA

In India, the ancient scriptures make reference to the existence of banking activity. The literature stands a testimony to the existence of banking business during the period. During the Ramayana and the Mahabharatha periods banking became a full-fledged business activity. Many Smrithis, Dharma Sastras and Arthasastra made references to the money lending activity. The Vaishya community was responsible for the development of money lending business in India. During the Mughul period, Multans and Shroffs undertook banking activities to finance international trade and Commerce. Before the advent of the British, Rule in India, the indigenous banks known by different names, such as Mahajans, Sehts, Sahukars, Marvadies, were well developed. With the establishment of the East India Company, the indigenous banks suffered a setback. The first bank on modern lines came into existence in 1688 in Madras Province. Another bank was set up in Bombay in 1724. The employees of East India Company stated 'Agency Houses' in large numbers in Bombay and Calcutta provinces. The first bank on modern line viz., the Bank of Hindustan was established in 1770 and subsequently, the Bank of Bengal was established in 1786. Due to the famine of 1788, the banking business was under in and hence both banks were dissolved in 1791. There were also many failures of Agency Houses in the beginning of the 19th Century. Consequently, Companies Act was passed in 1833 to control and regulate the activities of companies. Later the system of Agency Houses also disappeared.

To fill the void in the banking activities three provisional banks, viz., the Bank of Bengal in 1806, the Bank of Bombay in 1840 and the Bank of Madras in 1843 were established with government participation. The government subscribed Rs. 3 lakhs to each bank. The three presidency banks were amalgamated and the Imperial Bank of India came into existence in 1921. Several indigenous banks were also established. They include the Oudh Commercial Bank (1881), Punjab National Bank (1894) and Peoples' Bank (1901). The Swadesi Movement of 1905 gave great impetus for the establishment of new banks. Some important banks established during this period include Bank of India (1906), the Indian Bank (1907), the Bank of Baroda (1909) and Central Bank of India (1911). After the first World War, several banks collapsed. By 1945, there were 144 banks with a capital and reserves of over Rs. 5 lakhs. At the time of Independence in 1947, there were 648 commercial banks with 4,819 branch offices. With a view to developing banking system on sound business lines, the Bank Regulation Act was passed in 1949. The Imperial Bank of India was nationalised and was renamed as the State Bank of India in 1955. In the year 1969, 14 major commercial banks were nationalised and six more banks were nationalized in the year 1980. In order to cater to the needs of agriculture, small industry, rural artisans and small business, a new type of banks viz., Regional Rural Banks were established in 1975. After the beginning of the era of Globalisation since 1991, the banking sector is thrown open to foreign competition to a large extent.

7.4 ROLE OF BANKS IN ECONOMIC DEVELOPMENT

Banks have an important role to play in the economic growth of a country. They facilitate the growth of industry and commerce and thereby promote the overall development of a country. The economic history of developed countries amply testifies to the contributions of financial sector, particularly, the banking sector to the economic growth of these countries particularly during the 19^{th} and 20^{th} centuries. The role of banks in economic growth can be discussed under the following headings:

7.4.1 PROMOTES CAPITAL FORMATION

Capital formation is the basic requirement of economic development. The rate of capital formation in turn greatly depends on the rate of savings. A fairly developed banking system helps to mobilize small savings. Particularly in developing countries, due to imperfections in the market, savings remain idle or misutilised. Under such circumstances banks mobilize the scattered small savings and thereby provides safety and security to the savings of the people. The idle small savings, so mobilized, constitute a sizeable amount, which is channelled to investment and productive activities. Thus banks promote savings, capital formation, and thereby economic development in the country.

7.4.2 PROMOTES COMMERCE AND INDUSTRY

Banks facilitate the development of trade and industry in the country by providing fixed and working capital to them. They grant loans and advances to traders and industrialists. By means of issuing cheques, discounting bills of exchange and by mortgaging promissory notes, Banks provide adequate credit to promote commercial and industrial activities in India. Banks also enable them to harness new innovations in bringing about new combinations of factors of production. Moreover, banks by providing credit to only approved activities in accordance with the objectives of planned economic development, promote right and desired type of economic development. Without banks' credit large-scale investments by individual business and industry may not be possible. With the large scale production and specialization, cost of production will be low and hence commodities will be available at lower prices.

7.4.3 PRIORITY SECTOR DEVELOPMENT

Banks extend considerable amount of finance to agriculture, small-scale industry including artisans, self-employed persons and to export sector. In India these are categorized as priority sector. Priority-sector lending became mandatory after nationalization of major commercial banks in India. Development of priority sector ensures food security and employment and reduces inequalities.

7.4.4 REDUCES IN REGIONAL IMBALANCES AND ECONOMIC INEQUALITIES

Banks promote balanced regional development by minimizing regional disparities in the development of agriculture and industry. Banks ensure proper and equitable distribution of investments between developed and backward regions of the country. By establishing a large number of branches in rural and semi-urban and backward areas, banks can achieve uniform development of all the regions. Similarly, by provoking credit to small and marginal farmers, agricultural laborers and weaker sections like SCs, STs and OBCs, banks help in the reduction of economic inequalities among different sections of the society.

7.4.5 INCREASES EFFECTIVENESS OF MONETARY POLICY

A well-developed commercial banking system is an essential precondition for the effective implementation of monetary policy. Where banking sector is well developed, there will be grater flow of savings and funds to different sectors of the economy. Since the institutional credit structure is more amenable to control by the monetary authorities, its growth enhances the ability of the central bank to control the flow and direction of credit to different sectors of the economy. Money supply and investment can be regulated according to the changing needs and priorities of the economy.

7.4.6 STRENGTHENS THE LINK BETWEEN THE ORGANIZED AND UNORGANIZED SECTORS

The development of commercial banking strengthens the links between the organized and unorganized sectors of the economy. The growing competition between organized and unorganized sectors will have the effect of bringing down the rates of interest in the unorganized sector as well. Consequently, any impulse initiated by the policy action in the form of a change in the cost of credit or its availability is easily transmitted to the unorganized sector. Thus, banks indirectly influence the credit climate in the unorganized sector as well.

7.4.7 BANKS INCREASE MONETISATION OF THE ECONOMY

Banks help to monetise even the non-monetary transactions. Banks buy debts of other persons and create equivalent demand deposits, which are as good as money. For example let us suppose that a credit transaction has taken place between the traders A and B. Let us also suppose that trader – A who sold the goods to trader – B in exchange for a Bill of Exchange, discounts it with the bank. Thus, the trader – gets money immediately and thus the transaction is monetised.

Thus commercial banks play a very vital role in the economic development of a country. Banks accelerate the economic activities by increasing employment opportunities and income of the people. By channeling funds in accordance with the national priorities, banks promote desired pattern economic growth.

7.5 FUNCTIONS OF COMMERCIAL BANKS

Modern commercial banks perform several other functions. The most important of them is accepting deposits from advancement of loans to the public. People would like to keep their money in the form of deposits because they think that a bank is the safest place to do so. The banker knows that all the people who have deposited their money do not come at the same time to withdraw their deposits. Only a few people would come at a time and a small portion of total deposits would be sufficient to meet their requirements. Hence, the banks lend out the remaining portion of deposits to the public at a higher interest rates than the banks pay for their depositors. The difference between the two rates of interest constitutes the profit margin to the banks.

The functions of commercial banks can broadly be classified into two categories:

i) Primary or Fundamental functions. These include the receipts of deposits and lending of money, and

ii) Secondary or Subsidiary functions which vary from bank to bank, depending on the government policy.

Let us discuss these functions in detail.

7.5.1 ACCEPTING DEPOSITS

The most important function fo commercial banks is accepting deposits from the public. There are four types of deposits viz., i) Saving Deposits, ii) Current or Demand or Transaction Deposits, iii) Recurring Deposits and iv) Fixed or Term Deposits.

7.5.1.1 SAVING DEPOSITS

Generally, individuals and households who want to keep their savings with banks open Savings Deposit. The banks place some restrictions on the withdrawals in case of ordinary Savings Bank (SB) account. The depositor has to come to the bank personally to withdraw money. The interest is calculated on the minimum balances maintained during the specified period of each month. In the case of special SB account, cheque facility is given to the account holder. The accountholder can give cheque to any body if he maintains the required balance in his account. The minimum balance to be maintained in the case of SB account with cheque facility is generally high. It varies from bank to bank.

7.5.1.2 DEMAND DEPOSITS

Demand deposits are also known as current account deposits or transaction deposits. Business people and individuals generally open these deposits. The depositors are free to operate the account without any restrictions. Hence, these deposits carry no interest. Cheques are generally used to withdraw money. This type of deposit account is highly suitable for the businessmen because they can avoid the risk of carrying huge cash with them. Generally, banks collect some incidental charges on these accounts. This is the most important type of deposit, which results in multiple expansion of credit in the economy.

7.5.1.3 RECURRING DEPOSITS

In the case of recurring deposits the accountholder deposits some fixed amount periodically for a specified period, say for one year, or two years etc. At the end of the period, the accumulated amount with interest is paid back to the account holder. During the period, the account holder can get loan against the recurring deposit amount. Salaried people, pensioners, children etc., generally open the recurring deposit (RD) account.

7.5.1.4 FIXED OR TERM DEPOSITS

Fixed deposit is also known as Term deposit. The fixed deposit is made for a specified period of time, say for six months, one year to two years etc. The rate of interest depends upon the length of the period. Longer the period of the deposit, higher is the rate of interest. Generally, banks do not allow withdrawal of the amount before the expiry of the period, but some times banks may permit termination of the term deposit by reducing the amount of interest payable to the deposit holder. These term deposit bonds can be used as security to get loans from the banks. Since banks are sure that these deposits will not be withdrawn during the specified period, the proceeds of these deposits can be profitably employed elsewhere for a longer period. Hence, banks attach more importance to these deposits. Since time deposits are non-negotiable instruments, they cannot be used as cheques.

7.5.2 ADVANCING LOANS

Another important function of banks is granting loans and advances to agriculture, business and to general public. Banks use their surplus funds to grant loans and advances to general public against personal security of the borrowers or against the documents, or against collateral and marketable securities. Historically, commercial banks made mostly short-term loans of less than one-year maturity to business and agricultural that requires short-term credit. They are also prepared to pay a higher rate of interest. Generally commercial banks make four types of loans viz., direct loans, over-draft, cash credits and discounting bills.

7.5.2.1 DIRECT LOANS

Direct or Personal Loans are made to individuals against personal security of the borrower with or without surety depending upon the credit worthiness of the borrower. In recent years housing loans for construction and outright purchase of houses are provided on liberal terms.

7.5.2.2 OVER DRAFT FACILITIES

The current account holders are given overdraft facility by which they are allowed to overdraw their accounts upto a specified level fixed by the bank. Interest is charged only for the amount withdrawn and not for the entire facility. The period of overdraft is fixed by mutual agreement between the banker and account holder.

7.5.2.3 CASH CREDIT

Under the cash credit facility, loans are advanced against securities such as shares, promissory notes etc.

7.5.2.4 DISCOUNTING BILLS OF EXCHANGE

Banks also extend loans to the traders against the bills of exchange. The traders sell goods on credit by executing bills of exchange or hundies. The seller of the goods draws these. The purchaser of the goods affixes his signature by accepting the terms and conditions of sale. The period of payment is generally 90 days with a grace period of 3 days. Meanwhile if the seller needs the money he can get the bill discounted with his banker and thereby he can get the amount. The purchaser gets the goods without making any payment. The bank also benefits from the transaction in the form of discount money. This type of lending money is very much common in the case of commercial banks.

7.5.3 SUBSIDIARY FUNCTIONS

Apart from the above primary functions, banks also perform several other functions. These include agency services and general utility services.

7.5.3.1 AGENCY SERVICES

Commercial banks perform certain functions as an agent for and on behalf of their customers. Some of these functions are collection and payment of promissory notes, cheques, bills of exchange and other commercial instruments, interest, dividends, subscriptions, rents or other periodical receipts and payment like income tax, insurance premium etc. Banks also buy and sell shares and securities on behalf of customers. Banks take up the responsibility of remitting drafts, mails or telegraphic transfers on behalf of customers. Some times banks act as executor, trustee and attorney for their customers. They also provide information about profitable avenues of investment and advise the customers in complicated matters such as portfolio investment.

7.5.3.2 GENERAL UTILITY SREVICES

A commercial bank also performs certain general utility services. They include i)issuing letters of credit to its customers, ii) issuing of bank draft, travelers' cheques and mail transfers to transfer funds from on place to another place, iii) dealing with foreign exchange transactions and accepting the foreign bills of exchange, iv) standing as referee to the financial standing and credit worthiness of its customers, v) underwriting loans raised by the public bodies and corporations, vi) providing double key safety-lockers to the customers to keep valuables like gold, title deeds, securities, etc., in safe custody at nominal changes, vi) compiling useful statistics relating to trade, commerce and industry.

Thus commercial banks render valuable services to the community. Banks constitute the very lifeblood of an advanced economic society. In recent years their functions became more welfare-oriented with more lending for priority sector, weaker sections and employment oriented programs.

7.6 CHANGING ROLE OF COMMERCIAL BANKS

With the increasing maturity of a country's economy and the growth of specialised financial institutions, the importance of banking system seems to be declining. The growth of government expenditure, the rise of financial intermediates like building societies, hire purchase finance companies and specialised institutions for financing industries (IDBI, ICICI, IFCI), foreign trade (EXIM Bank) and the changing pattern of corporate financing in favour of public issues, all have contributed to the declining importance of banking sector. Nevertheless, in developed as well as developing countries, the banking sector has shown a remarkable resilience and vitality. It has tried to adapt itself to the sweeping changes in the economy, particularly after 1991 by diversifying its activities. Today the commercial banking system presents a new picture of innovations in practice, including computerization, automation (ATMs) and extending services for 24 hours a day.

7.6.1 PROVISION OF MEDIUM AND LONG-TERM LOANS

Historically, commercial banks offered mostly short-term loans (less than one year) to business and agriculture. These loans were extended through demand deposits and /or bank note creation. Today commercial banks are increasingly participating in medium-term and long-term financing. The long-term participation of commercial banks has been in the form of subscription of the equity capital of the specialised institutions for financing of industry such as ICICI, IDBI, and SFCs.

Along with the Reserve Bank of India, the commercial banks have also realised the need for participation in equipment-capital financing through the provision of direct term loans to the industry. In certain cases, the short-term loans are 'rolled over' to medium term and long-term ones. Some banks are underwriting the issues of industrial shares and also making long-term loans for a period of 12 years or more against the security of industrial plant and machinery.

However, given the risks, costs and the unfortunate experiences in the past, the wholesale venturing of commercial banks to term-lending is not advisable. Nevertheless, some part of growing tem deposits can legitimately be earmarked for long-term lending keeping in view the ratio of capita and reserves to deposits and proportion of time and saving deposits to total deposits.

7.6.2 BANKS AND HIRE PURCHASES

Another functional change in banking system is to be seen in the sphere of provision of hire-purchase finance. It is not new to the Indian commercial banks. A small number of Indian banks have also financed hire-purchase and instrument-purchasing of durable consumer goods, chiefly motor cars as well as producers' equipment. A small portion of the cost is to be deposited in the banks in the way of initial or margin payment. The bank will pay the dealer in full. The ownership of article passes on to the purchaser but it will be hypothicated to the financing bank.

7.6.3 PERSONAL LOANS

Another major functional change in the banking system in India has come with the introduction of personal loans. The Indian overseas bank pioneered in the area of personal loans under the scheme. Applications for such loans are required to satisfy the test of having a stable income, with reasonable prospects of its continuance during the term of the loans. Government servants, employees of statutory bodies and established industrial, financial and commercial institutions, owner of urban property with stable income and employees of banks would be eligible.

Loans would be granted for the purchase of durable goods like motor cycles, refrigerators, TVs, air-conditions, air-coolers, as well as professional equipments like agricultural equipment, Xerox machines, X-ray and other equipment. Under this scheme the bank would provide direct credit to the consumer rather than refinance loans to the dealers and hire-purchase agencies.

7.6.4 HOUSING LOANS

Yet another important functional change in the Indian's commercial banking has been the provision of housing loans. Besides Housing Corporation, the LIC has been providing housing finance to their customers. Later on some commercial banks like Andhra Bank have established separate wings like AB Housing Corporation for housing loans. But recently with the falling interest rates and increasing competitions, almost all commercial banks have entered the area of housing finance. Housing loans are sanctioned both for construction and outright purchase of constructed dwelling houses. The branch manager is now empowered to sanction housing loans upto Rs. 10 lakhs. Beyond Rs. 10 laksh, the sanctioning authority is vested with the regional officers.

7.6.5 EDUCATIONAL LOANS

The Commercial banks have also entered the area of extending loans to students to pursue post-graduate and professional course, like MBA, MCS, MBBS, B.Tech, etc., It is a long-term loan repayable over a period of 15-20 years. Besides expenditure-certificate from the Head of the institute, collateral security from the parents is also insisted upon.

7.7 SUMMARY

A bank is an institution dealing with money. It attracts deposits from the public and makes loans and advances to agriculture, trade, industry and the general public. The word 'bank' seems to have been derived from the German word 'banc', meaning a joint stock company. Some also believe that it has been derived from the Greek word 'banque', meaning a bench where coins are kept. The origin of banking would be traced back to ancient Greek period, around 2000 BC when the temples of Greece and Roma acted as store-houses of precious metals, like gold and silver. During the medieval period lending was in the hands of the Jews. However, the genesis of modern banks started only with the establishment of Bank of Venice in 1157 and joint stock banks with the establishment of Bank of England in 1694. In India the origin of banking could be traced back to the Vedic period, but banks on modern lines started only after the establishment of three Provincial banks at Madras, Bombay and Calcutta. These were merged with the Imperial Bank of India and were renamed as SBI. Several commercial banks were established after the Swadesi Movement of 1905.

Banks play a very important role in an economy. They promote capital formation, commerce and industry, and priority sector. Banks help to reduce regional inequality, strengthen the effectiveness of monetary policy and link between organized and unorganized sector. Banks also help to monetise the hitherto non-magnetized transactions of the economy.

Commercial banks perform several functions. They accept deposits of various types like saving deposits, demand deposits, recurring deposits and term deposits. They extend several type of loans such as direct loans, overdraft facilities, cash credit and discounting bills of exchange. In addition to the above primary functions, banks perform certain agency functions, and offer general utility services to the public. In recent years the role of commercial banks has changed very much. In contrast to the historical short-term loans, banks now offer medium term and long-term loans, engage in hire-purchases, provide personal loans, housing and educational loans.

7.8 CHECK YOUR PROGRESS

I. Answer the following questions in about 4 or 5 lines each.

1. What is the origin of the World Bank?
2. Who controlled the banking activity in Europe during ancient period?
3. What are the first three Provincials banks in India? When were they established?
4. What is the new name of Imperial Bank of India?
5. What are the roles of commercial banks?
6. What are the primary functions of commercial banks?

7.9 GLOSSARY

Commercial Banks : Commercial Banks are a type of financial institutions that act as intermediaries between savers and investors. They accept deposits from the public and advance loans to those who need them.

Capital Formation : Increasing investment in real fixed assets in an economy is known as capital formation.

Priority Sector : Agriculture, small-scale industry and exports are considered to be the priority sectors. This concept was originated after the nationalization of major commercial banks in India in 1969.

Monetary Policy : Central Bank's policy of regulating the cost and availability of money in an economy with a view to achieving desirable national objectives is known as monetary policy.

Organized Sector : Organised sector is a sector where formal laws of the land such as Factory's Act are applicable. They are generally registered under factories laws.

Unorganized Sector : Unorganised sector is a sector where formal rules of the land relating to industry do not apply. They do not have protection under the Factory's laws.

Monatised Debt : When the Bills of Exchange is submitted for banks for discount, the bank creates an equivalent amount of demand deposits. It is known as monetised Debt.

Saving Deposits : Savings bank's account is opened by the people who have surplus income with them. Personal withdrawal is only permitted. In case of Special Savings bank's account withdrawal is permitted by third party using cheques.

Demand Deposits : Bank deposits that are withdrawn by means of cheques without any restrictions and that carry low interest rates are known as demand deposits. They are also known as current or transaction deposits.

Recurring Deposits : Depositing some fixed amount periodically for a specified period, say one or two years is known as Recurring Deposits.

Term Deposits : Depositing a fixed amount for a fixed period say, two years or five years etc.

Direct Loans : Advancing loans to individuals against personal security of the borrow with or without surety depending upon the creditworthiness of an individual borrower is known as direct loans.

Over Drafts	: The excess amount over and the deposits drawn by a depositor from a bank account is known as over drafts.
Cash Credit	: The loans advanced against shares and securities by commercial banks are known as cash credit.
Bills of Exchange	: Trade credit bills drawn by one trader on another trader is known as Bills of exchange.
Agency Functions	: The functions done by a commercial bank such as collection of bills, payment of tax etc., on behalf of customers are known as Agency functions.
Utility Functions	: The functions such as providing double key locker facility, compiling useful trade and financial statistics to customers, issuing traveler's cheques to transfer money from one place to another place are known as General Utility services.

7.10 MODEL EXAMINATION QUESTIONS

I. Answer the following questions in about 30 lines each

1. Discuss the genesis and growth of modern banking in Europe and India.
2. Examine the role and functions of commercial banks.
3. "Commecial banking today presents a new picture of innovations and wider horizons". Elucidate.

II. Answer the following questions in about 15 lines each

1. Trace the origin of banking.
2. Give a brief account of the genesis of banking in India.
3. Discuss the role of banks in an economy.
4. What are the agency and utility functions of commercial banks?
5. What are the new roles of commercial banks?

7.11 SUGGESTED BOOKS

1. R.S. Sayers : **Modern Banking**
2. K.P.M. Sundaram : **Money, Banking, Trade and Finance**
3. T.T. Sethi : **Monetary Economics**
4. S.K.Basu : **Current Banking Theory and Practice**

- Dr. D. Krishna Murthy

UNIT – 8 : CREDIT CREATION BY COMMERCIAL BANKS

Contents

8.0 OBJECTIVES

The purpose of this unit is to make you understand the concept of credit-creation and multiple expansion of deposits by the commercial banks.

After reading the unit, you will be able to:

- the principles of commercial banking:
- the balance sheet of commercial bank;
- the process of credit creation:
- the limits of credit creation; and
- the significance of credit creation in an economy.

8.1 INTRODUCTION

Money plays an important role in determining the level and direction of economic activities. the size and distribution of national income, magnitude and structure of employment in all types of economies. The changes in money supply also bring about significant changes in the real variable like savings, investment, income, employment and production. It is, therefore, necessary that the total supply of money in an economy should be kept in such a way that it leads to stability rather than instability in the economy. But the question is what is money? What are the components of aggregate money supply? Thus, it is necessary to define the term 'money'. The term money' has been defined differently by economists. Even though it is not possible to give an accurate and comprehensive definition of money, the following is generally accepted definition of money. "Money is anything actually functions as a generally acceptable medium of exchange for the goods and services, assets and repayment of debt". Defined in this way, money consists of coins and currency with public, national cash reserves of commercial banks plus nominal demand deposits of the commercial banks. Thus aggregate money supply denoted by M_1 comprise the currency (C) and demand deposits (D) that are created in the economy by the commercial banks.

$$Ms = C+D$$

This is because a demand deposit permits the owner of a deposit to transfer funds to another party through cheques. In modern economies most of business transactions take place by means of cheques because they are the safer medium of exchange, when compared to cash. For example if two bags, one bag containing Rs. 1000 cash and another containing cheques for Rs. 1000 are lost, it is very easy to identify the owner by means of cheques rather than by cash. Thus cheques are more than equal to hot cash. It is the commercial banks that create demand deposits. In this chapter let us learn how commercial banks create this most important type of money and how they get multiplied over a period of time. Before we actually discuss this aspect, let us know about the principles of banking and the structure of balance sheet of a bank.

8.2 PRINCIPLES OF BANKING

The capital of bank consists of share capital and deposits made by the customers. A prudent banker has to invest this capital in such a way that he gets maximum possible profits to the shareholders and at the same time ensure safety and liquidity to its depositors. There are no hard and fast rules, which govern the investment pattern of a bank. As economic conditions differ from country to country and (also) the composition of capital differs from bank to bank; the individual banks take decisions, depending up on the local needs. Nevertheless, three important principles influence the investment policy of a bank. They are i) the principles of security ii) the principle of liquidity and iii) the principles of profitability. Let us discuss these principles in a more detailed manner.

8.2.1 THE PRINCIPLE OF SECURITY

The most important principle governing commercial banking is the security. This is because a commercial bank is basically a custodian and trustees of depositors and hence, it has to safeguard the interests of the depositors. Holding of high-risk-portfolio may usually enhance the profit levels but it may endanger the principle of security. Since banks do business with others' money, they must be very careful in selecting their assets portfolio. A bank should not invest too much in long-term securities, as it will endanger the liquidity and confidence of the depositors. Investment in short-term securities, of course, will reduce the profitability. A bank should not invest in a few securities or advance large sums to a few people. In case of bad debt, the bank suffers, a great loss. It has to diversify its assets portfolio as much as possible. Similarly, there should be geographical diversification of loans so that in case of natural calamities like floods, droughts, earthquakes or external invasion, the bank might not suffer very much. The portfolio in another locality may compensate the losses in one locality.

8.2.2 THE PRINCIPLE OF LIQUIDITY

Another important guiding principle of a bank's portfolio management is liquidity. A bank receives deposits from the public and the public may withdraw some portion of their deposits with or without any notice. Under such circumstance, the bank should be in a position to pay cash against the deposits. Hence, it is necessary to keep adequate assets in cash or liquid form so that the bank can meet its obligations without any difficulty. This ratio of liquid assets to deposits is known as 'liquidity ratio'. The term 'Liquid Assets' refers to the assets that can be converted into cash without any loss of time and value. Historically, a large proportion of a commercial Bank's liabilities consisted of demand deposits and, therefore, was easily withdrawn. Hence, commercial banks' assets-management theory focused on the need for liquidity. Three Asset Management Theories, viz., i) Commercial Loan Theory, ii) the Shiftability Theory and iii) the Anticipated Income Theory were developed. The Commercial Loan Theory, also known as Real Bill Doctrines developed in the nineteenth century, held that commercial banks should make only short-term self-liquidating loans e.g., short-term seasonal inventory loans. In this way loans would be repaid and cash would be readily available to meet deposit outflows. The Shiftability Theory is an extension of the commercial loan theory. It states that by holding money market instruments, a bank could sell such assets without any capital loss when a deposit outflow occurred. The Anticipated Income Theory was developed after the Second World War. The theory states that medium term loans are liquid because they generate continuous inflows of cash. Currently, banks primarily rely on Shiftability Theory and Anticipated Income Theory. Banks invest in easily saleable securities like, debentures, and also in government bonds. When banks are hard pressed for liquidity, they can easily sell them in market.

8.2.3 THE PRINCIPLE OF PROFITABILITY

The very name 'commercial bank' suggests that its business activities are commercial, aimed at earning profits. The shareholders of a bank's capital expect adequate and reasonable returns on their capital. Moreover, the banks have to pay interest for their deposits. Hence banks cannot afford to keep their funds idle. They need to keep some portion of their total deposits in the form of cash or call-money bills on which there will be no or negligible returns. Moreover, banks have a statutory obligation to keep some portion of their capital in gilt-edged (low-risk) government securities on which there would be very low returns. Hence, the rest of the deposits are to be invested in high profit ventures. Banks should prudently select their portfolio so that the average yield on earning exceeds the average cost of deposit liabilities, resulting in positive spread. Banks should also lend some portion of their funds in investments that yield constant and regular returns.

8.3 TRADE-OFF AMONG THE PRINCIPLES

From the foregoing discussion it is clear that the three principles discussed so far are conflicting in nature. Though the profitability of a particular security is very high, a bank may not invest in it, unless it is satisfied with the security. Since a bank deals with other's money, it should be very cautious in investing its funds. The safety and profitability may not always go together in all types of investments. For instance, for a very long period it has been believed that investments in government securities have very high safety or very low risk (gilt-edged) even though the profitability is very low. There is a statutory obligation on the part of the banks to invest certain proportion of its deposits in government securities. This is known as 'Statutory Liquidity Ratio'. Earlier ratio used to be very high. Banks expressed concern over this situation as their funds were locked up in low yielding government securities. Now this ratio has been considerably brought down. Banks are now free to explore appropriate investment opportunities to maximise the returns on investment. If banks prefer to invest more, the liquidity ratio of banks may fall below the required level and banks may not be able to meet the demands of the customers. This may undermine the credibility of banks. Thus in view of the conflicting nature of these principles, a bank has to strike a balance in relation to conflicting objectives of banks viz., Security, Profitability and Liquidity. Since, banks primarily deal with short-term deposits, a greater attention is to be paid of the liquidity aspect.

8.4 FACTORS DETERMINING THE LIQUIDITY OF BANKS

Every bank has to pay, whenever depositors want to withdraw their money. Otherwise there will be confidence-crisis, leading to the collapse of a bank. A bank has to maintain sufficient cash and liquidity balances. As it is stated already, the ratio of liquid assets to total deposits is known as liquidity ratio. A number of factors determine the liquidity ratio of banks.

8.4.1 LEGAL REQIREMENT

The Central Bank of a country may prescribe a certain minimum liquidity ratio that should be maintained by all commercial banks. This ratio is known as Cash Reserve Ratio (CRR). Earlier this ratio used to be very high in India. But in recent years it has been considerably brought down and during the year 2002, it is 5.5 per cent. Investment by banks in government and other approved securities, which is known as Statutory Liquidity Ratio also used to be very high at 35 per cent in India. On the recommendations of Narasimham Committee Report, it was brought down considerably. The CLR and SLR ratios vary from country to country, depending upon the level of economic development and socio-economic objectives of the country. Even within a country the CRR is changed, keeping in view the demand for credit in busy and slack seasons.

8.4.2 BANKING HABITS AND CONDITIONS

The liquidity ratio of banks is also influenced by banking habits of the people. If people use cheques, drafts, etc., frequently, to carry out their transactions, less money will be withdrawn from the banks and liquidity ratio can be maintained at a low level. For instance, in developed countries, cheques are generally accepted in all transactions and hence cheques are endorsed in favour of another person, whenever a new transaction takes place. There are instance where a cheque is endorsed 10 to 15 times, without having gone to the bank, before the end of its valid date for encashment. Under such circumstances, there is little need for maintaining high cash reserve ratio. Instead a bank can profitably lend money to other profitable users. In developing countries, particularly in rural area, where cheque facilities are rarely used in transactions, banks have to maintain higher cash or liquidity ratio compared to developed countries and metropolitan areas. Thus banking habits of the people determine the liquidity ratio to be maintained by the bank.

8.4.3 STRUCTURE AND DEVELOPMENT OF THE BANKING SYSTEM

If a large network of banks is there in a country, people generally use cheques rather than cash in their day-to-day transactions. On the other hand, if a very few branches of a bank are there, then people prefer cash rather than cheques. If credit instruments are well developed in a country, people prefer to use cheques in lieu of cash and there is less demand for cash. And banks can run their affairs with less cash reserve ratio.

8.4.4 DEVELOPMENT OF MONEY MARKETS

The nature of money markets also influences the liquidity ratio. The term 'money market' refers to the short-term credit market. If the short-term credit or money market is well developed with a number of supporting institutions and instruments, then the liquidity ratio can be kept at a low level. Banks in fact, borrow a great deal from the money market in time of need. On the other hand, if the money market is under-developed, possibilities to borrow from other banks and institutions is very less and as such banks have to maintain a high liquidity ratio.

8.4.5 NATURE AND SIZE OF DEPOSITS

The nature of accounts also determines the liquidity ratio. For instance, if breaks maintain more current and savings bank accounts, then there is greater need for maintaining higher liquidity ratio. On the other hand, if relatively there are more fixed and recurring deposit accounts, there is less need for maintaining higher liquidity ratio. Similarly, the size of these deposits also influences the liquidity ratio. For instance, greater the size of current and savings bank accounts, greater will be the need for maintaining higher liquidity ratio and vice-versa. If the size of the term-deposits is high, the banks need to maintain low liquidity ratio. Thus the size and structure of deposits of the banks also determine the liquidity ratio to be maintained by the commercial banks.

8.4.6 SEASONAL VARIATIONS

There are also seasonal variations in the demand for money. For instance, during sowing and harvesting seasons, there is huge demand for credit from farmers and businessmen respectively. These periods are also known as busy periods. On the other hand, during the slack season when economic activities are low, there will be less demand for credit and hence the banks can maintain low cash reserves. In view of these reasons, in India the Reserve bank announces CRR ratios separately for busy and slack seasons.

8.4.7 GENERAL ECONOMIC CONDITIONS IN THE ECONOMY

The general economic condition viz., prosperity, boom, recession and depression also determine the liquidity ratio to be maintained by the banks. For instance, during revival and prosperity, there are brisk economic activities and demand for cash is very high. Hence, banks have to maintain high liquidity ratio. On the other hand, during recession and depression, there is slackness in economic activities and banks need to maintain a very low liquidity ratio.

8.4.8 STRUCTURE OF BANK'S INVESTMENT

The structure of a banks' investment also plays an important role in the determination of liquidity ratio. For instance, if banks invested major proportion of their deposits in short-term liquid assets, there is less liquidity ratio and vice-versa.

NB: This principle if liquidity ratio has been repeated the author knows the reason.

8.5 BALANCE SHEET OF A BANK

A Balance Sheet is a statement of accounts showing the financial position of a business concern. Two items viz., assets and liabilities reveal the financial position of banks. The assets of banks are generally shown on the right hand side and the liabilities are shown on the left-hand side. A commercial bank earns profits for shareholders by having a positive spread in lending and through leverage. A positive spread exists when the average yield on earning assets exceeds the average cost of deposit liabilities. By having high-risk portfolios. positive spread can be increased because a high-risk portfolio generally yields high profits. But if the high-risk portfolio becomes non-performing, there is a danger of insolvency and bank failure. Let us examine the structure of liabilities first. Table – 8.1 shoes a highly simplified balance sheet of a bank.

Table – 8.1 Balance Sheet of a Commercial Bank

Capital and Liabilities		Property and Assets	
Liabilities	Rs. 9,00,000	Assets	Rs. 9,50,000
Capital	Rs. 10,000	Properties	Rs. 50,000
Total	Rs. 1,00,000	Total	Rs. 1,00,000

The liability-side of the balance sheet of a typical commercial bank is comparatively simple. Firstly, it consists of a bank's liabilities to its shareholders in the form of the paid up capita and accumulated undistributed profits known as reserves. This part of the bank's total reserves is, however, very small. The largest part is a bank's liability to the public in the form of different types of deposits such as demand deposits, recurring deposits and time deposits. They represent country's bulk of money supply. Thirdly, banks borrow from other banks and the Central Bank of the country. Fourthly, banks need to pay for the bills of exchange discounted with them. Lastly, there is the item of miscellaneous liabilities, which are incurred by a bank in the ordinary course of its business. Lastly, there is profit and loss item. These items are detailed in Table - 8.2.

Table – 8.2 Details of Balance Sheet of a Commercial Bank

Capital and Liabilities	Property and Assets
1. Capital	1. Cash
2. Reserve Fund	2. Balance with other Banks
3. Deposits and other Accounts	3. Money-at-call and short-notice
4. Borrowing from banks & Agents	4. Investments
5. Other Liabilities	5. Advances
6. Profit & Loss	6. Buildings less Depreciation
	7. Furniture & Fittings
	8. Other Assets
	9. Profit & Loss

The assets-side of the balance sheet is little complicated but interesting. The first item is cash. While cash is absolutely liquid, it yields no income. Hence, a bank maintains cash balances with central bank, deposits with other banks, money at call and short notice. These are four types of assets of a typical commercial bank and they are arranged in descending order of liquidity. The Treasury bills are government IOUs maturing in 91 days. These bills carry a very low interest rate, known as discounting rate. The commercial banks possess the central and stage government securities of different duration or mixes. The same thing can be said about advances to public. There are many more types of assets of a typical commercial bank as noted in Table – 8.2. As noted already, while allocating its resources between different types of assets open to it, a bank is guided by two main considerations viz., ability to meet any cash claims made on it promptly and the ability to earn as such income as possible on investments. A successful and shrewd bank manager must so distribute his resources among different assets that the returns on these assets are sufficient to pay staff salary, interest on the borrowings, accumulated reserves and some surplus to declare and pay dividends to his share holders.

To illustrate the points consider the following simple example. Assume that ratings of 0 to 5 are assigned to financial investments with the zero rating, indicating no default risk and a 5 rating a borrower who has a high probability of default. The promised yields on these six rated instruments is as follows:

Zero rated will have yield of 8 per cent, one rated 8.5 per cent, 2 rated 9.5 per cent, 3 rated 11 per cent 4 rated 13 per cent and 5 rated instruments will have an yield of 16 per cent. Let us also consider two banks viz., A and B that are of equal size. Let us also assume that the Bank-B has got high-risk portfolios. Also assume that A's and B's average cost of liabilities is 7.5 per cent.

Table – 8.3 Details of Bank – A's Balance Sheet (Rs. in lakhs)

Capital and Liabilities		Property and Assets	
1. Deposit Liabilities	Rs. 98,000	1. Reserves	Rs. 12,000
2. Owner's Equity	Rs. 7,000	2. Financial Instruments	
		Rated – 0	Rs. 20,000
		Rated – 1	Rs. 18,000
		Rated – 2	Rs. 35,000
		Rated – 3	Rs. 20,000
Liabilities + net worth	Rs. 1,05,000	Total Assets	Rs. 1,05,000

In the same way Bank-B's balance sheet is provided in Table – 8.4.

Table – 8.4 Details of Bank – B's Balance Sheet (Rs. in lakhs)

Capital and Liabilities		Property and Assets	
1. Deposit Liabilities	Rs. 98,000	1. Reserves	Rs. 12,000
2. Owner's Equity	Rs. 7,000	2. Financial Instruments	
		Rated – 0	Rs. 5,000
		Rated – 1	Rs. 8,000
		Rated – 2	Rs. 15,000
		Rated – 3	Rs. 20,000
		Rated – 4	Rs. 30,000
		Rated – 5	Rs. 15,000
Liabilities + net worth	Rs. 1,05,000	Total Assets	Rs. 1,05,000

The interest amounts on the four A's earning assets (excluding reserves) are Rs. 1,600, Rs. 1,530, Rs. 3,325 and Rs. 2,200 lakhs respectively. The total interest earned is Rs. 8,655 lakhs. This, as a percentage of A's total earning assets of Rs. 93,000 comes to 9.31 per cent. Thus the net returns on A's assets is 9.31 – 7.50 = 1.81 percent. Similarly, the simple calculations of returns on various B's earning assets yield interest incomes of Rs. 400, Rs. 680, Rs. 1,425, Rs. 2,200, Rs. 3,900 and Rs. 2,400 lakhs respectively. Thus the total interest earnings are Rs. 11,005 lakhs. This as a percentage of total earning- assets of Rs. 93,000 lakhs comes to 11 per cent. Thus the net returns on B's assets came to 11.83 – 7.50 = 4.33 per cent or 433 basis point spread.

8.6 CREDIT CREATION BY COMMERCIAL BANKS

Commercial banks are crucial institutions in the country. Among the financial intermediaries, commercial banks are the only institutions that are also to create credit in the country. The term "credit" is derived from the Latin word "Credo" which means belief of trust or confidence. In all business and banking transactions, confidence plays a crucial role. Taking advantage of the confidence that the depositors deposit in a bank, the bank lends out the deposits to the public in the form of credit or loans.

8.6.1 PRIMARY AND SECONDARY DEPOSITS

Commercial banks create credit on the basis of their deposits and loans. These deposits primarily depend upon the banking habits of the people. In order to attract deposits from the public, banks offer attractive interest rates and announce several types of deposit. Customers in turn deposit their money with a bank. The customers may also deposit their cheques, drafts or bills for collection. On realization, these are credited to the accounts of the individual customers. All these type of deposits are known as primary deposits. In course of time, the volume of the deposits with a bank may increase. All these deposits are not kept idle with bank. They are used by the commercial banks to create some additional deposits. Banks may advance loans to some individuals who are in need of credit. These individuals may in turn deposit whole or part of their credit with banks. Thus additional deposits are created and these are known as secondary deposits.

8.6.2 METHODS OF CREDIT CREATION

Let us now examine various methods of credit creation. Credit creation by banks primarily takes place through three different methods viz., i) creation of demand or transaction deposits ii) discounting Bills of Exchange and iii) buying of securities.

8.6.2.1 Creation of Demand Deposits

When a bank advances loan to a customer, it does not pay the customer in the form of cash but creates a demand or transaction deposit in his or her name. The loan amount is credited to the account. The customer is supplied with a passbook and a cheque book. Whenever the customer is in need of money, he withdraws, his money. Thus, banks create additional deposits in the process of granting loans to customers.

8.6.2.2 Discounting Bills of Exchange

Banks also create additional deposits when they discount Bills of exchange. When a trade transaction takes place, Bills of Exchange is submitted to a bank for discounting. The bank does not pay cash but credits to the account of the customer, equal to the value of the discounted bill. In this way a bank's deposits increase equal to the value of the discounted bill. Discounting Bill of Exchange is a widely used method of business transaction in most economies. These valuable assets are used by the commercial banks to rediscount them with the Central Bank, whenever banks are in need of resources. Thus by way of discounting Bills of Exchange also a commercial bank creates additional credit.

8.6.2.3 Buying Securities

Banks also create desired deposits when they purchase approved bonds and securities from the public. In this process also banks credit to the accounts of the customer and thereby create derived deposits without any actual cash transaction. These transactions add to the total money supply in the economy.

8.6.3 MULTIPLE EXPANSION OF CREDIT

An individual bank cannot afford to lend more than its excess reserves. No single bank can invest or lend money that it does not have. But the banking system as a whole can do what a single bank (working alone or in competition with others) cannot do. It can expand its loan and investments many times the new reserves of cash created for it. According to R.S. Sayers, an authority on banking, "banks are not only purveyors of money but also manufacturers on money". In all economies, where banking is well developed, people would like to keep their money with banks. They also prefer to make payments by means of cheques because they are convenient and also they provide an evidence for payments. Everyday a bank receives cash and also makes cash payments. By virtue of experience, a banker knows pretty well that all customers do not withdraw cash from banks and hence, he need not keep the entire money that he received. Some customers who withdraw may deposit the same with other banks. When people receive cheques from the debtors, they are deposited in their accounts. The banker simply debits one account and credits another account if both maintain their accounts with the same bank. Even if they maintain account in two different banks, through the clearinghouse, the claims can be realised by debiting the accounts of the debtor's bank and crediting the account of the creditor's bank. Thus, actual cash transactions may not take place and there are only book adjustments. In view of these reasons, a banker maintains only a fraction of his total deposits in the form of cash to meet the claims of the customers and inter-bank claims. The remaining portion of total deposits is used for credit creation. A banker need not restrict his lending to the proportion of his reserves. He can lend many times more than that. consider the following simple example to understand how banks can lend many times more than their initial deposit amount.

Assume that a consumer deposits an amount of Rs. 1000 in his account in bank – A. The balance sheet of bank – A will be as follows:

Table – 8.5: Balance Sheet of Bank – A

Liabilities (Rs.)		Assets (Rs.)	
Deposits	1,000	Cash	1,000
	1,000		1,000

The bank cannot lend out entire thousand rupees to other persons. A part of it must be kept with the bank to meet the cash demands from the depositors. This amount is known as Cash Reserve Ratio (CRR). Let us assume that the cash reserve ratio is 20%. Out of Rs. 1,000, the bank has to keep 20% or Rs. 200 as reserves. The remaining balance of Rs. 800 may be lent out to Mr. X. After granting loan to Mr. X, and crediting his account, the bank's balance sheet will be as follows:

Table – 8.6: Balance Sheet of Bank – A

Liabilities (Rs.)		Assets (Rs.)	
Deposits	1,000	Cash	200
		Loan to Mr. X	800
	1,000		1,000

The individual X may issue a cheque to one of his creditors, Mr. Y having his account in Bank – B. Mr. Y may not withdraw cash from Bank – A, but he may deposit his cheque in Bank – B in which he has an account. Bank – B realises the amount from Bank – A through the clearinghouse. Bank – A's account is debited and Bank – B's account is credited. Note that only book adjustments are made in the respective accounts of the banks and the cash is still in the bank. The transaction is entered in the balance sheet of Bank – B in the following way:

Table – 8.7: Balance Sheet of Bank – B

Liabilities (Rs.)		Assets (Rs.)	
Deposit	800	Cash	800
	800		800

Table – 8.8: Balance Sheet of Bank – B

Liabilities (Rs.)		Assets (Rs.)	
Deposits	800	Cash	160
		Bills Discounted	640
	800		800

The drawers of the bill may issue cheque to their creditors who may deposit the cheque with Bank-C. Bank-C after keeping 20 per cent of 640 i.e., Rs. 128 as reserves may buy securities for Rs. 512. These transactions are entered in the balance sheet of Bank – C in the following manner.

Table – 8.9: Balance Sheet of Bank – C

Liabilities (Rs.)		Assets (Rs.)	
Deposits	640	Cash	128
		To Securities	512
	640		640

This process of deposits becoming loans and loans becoming deposits gets repeated in the banking system, until the original deposit of Rs.1000 is completely used. When we add up the total deposits credited by all banks, the original deposit of Rs. 1000 will become Rs.5000. Thus, the initial deposit of Rs. 1000 becomes, Rs. 5000 or five times. In other words, additional or derived deposits worth of Rs. 4000 was created by the banking system. Table 8.3 provides the details of the process of credit certain by the banking system.

In the initial deposit of Rs. 1000, people may withdraw only 20 per cent or Rs. 200. The remaining amount of Rs. 800 will remain as idle cash balances. In order to convert these idle cash balances into active cash balances, the banking system as a whole, lends, to the extent of Rs. 4000. As we have discussed earlier, the loans are granted on proper only by book adjustments and cash is not paid actually.

Thus, we see that Rs. 4000 are granted as loans against the original deposits of Rs. 1000. However, people may not withdraw all the amount of Rs. 5000. Only 1/5th or 20 per cent is withdrawn in the form of cash and hence only Rs. 1000 is maintained as cash reserves. The rest of the loan amount is settled mostly by cheques, drafts etc.

Table – 8.10 Credit Creation by the Banking System

Banks	New Deposits Received (Rs.)	Reserves against its Deposits (20%) (Rs.)	Deposits created on the basis of Excess reserves (Rs.)
Initial Public Deposit	1,000.00	200.00	800.00
Bank – A	800.00	160.00	640.00
Bank – B	640.00	128.00	512.00
Bank – C	512.00	102.40	409.60
Bank – D	409.60	81.92	327.68
Bank – E	327.68	65.54	262.14
Bank – F	262.14	52.42	209.72
Bank – G	209.72	41.95	167.77
Bank – H	167.77	33.55	134.22
Bank – I	134.22	26.85	107.37
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Bank – J to &	536.87	107.37	429.50
Total	5,000.00	1,000.00	4,000.00

If the cash reserve ratio were still less, banks would create still higher level of deposits. For instance, if the CRR were 10 per cent instead of 20 per cent, the final increase in deposits would be 10 times the original deposits i.e. Rs. 10,000. Similarly if the CRR were only 5 per cent, banking system would be in a position to create credit to the tune of Rs. 20,000. Thus it is the cash reserve ratio of banks, which in turn is influenced by banking habits of the people that determines the magnitude of multiple expansion of credit.

8.6.4 DEPOSIT MULTIPLIER

As we have seen, the amount of credit-creation by the banking system as a whole depends upon the cash reserve ratio or liquidity ratio. The chain of deposit-creation can be proved by a simple algebraic formula. The amount of additional deposits created during various years is,

= Rs. 1,000 + Rs. 800 + 640 + ...

= Rs. 1,000 [1+4/5 + (4/5)* + (4/5)* + (4/5)* +......................]

= Rs. 1,000 [1/1 – 4/5]

= Rs. 1,000 [1/ 1/5]

= Rs. 1,000 X 5

= Rs. 5,000.

By denoting the cash reserve ratio or 1/5 as 'r' we can write the deposit multiplier as K=1/r.

If the initial deposit is ΔI and the reserve ratio is r, the additional deposit created will be equal to

$$\Delta D = \Delta I \cdot 1/r$$

Given 'r' and ΔI, this equation gives limit to banking system which can actually create deposits. ΔD is directly proportional to ΔI and inversely proportional to 'r'. The money creation multiplier is equal to the reciprocal of the minimum reserve ratio. Thus, if the percentage of cash reserve ratio is 20 per cent, then the deposit multiplier will be 1/(20/100) or 1/(1/5) of five times. If it is 25 per cent the deposit multiplier will be equal to 1/(25/100) or 1/(1/4) or four times. If the percentage of cash reserve ratio is lowered to 10 per cent, the deposit multiplier is 1/(10/100) or 1/(1/10) or 10 times. Thus it is evident that the lower the rate of cash reserve ratio, the higher will be the deposit multiplier. An individual bank, which has excess reserves of ΔI, can grant new credit only up to amount of its excess reserves. But the banking system as a whole can grant new credit up to an amount several times the size of ΔI.

8.6.5 LIMITS TO CREDIT CREATION

In the hypothetical illustration of deposit multiplier, we have given a maximum limit to create credit by the banking system as a whole. In actual practice, it is not likely that such a perfect coordination would occur. The results that we have derived are based on the following assumptions:

1. There is no 'cash drain' or leakage of cash from the banking system in the course of credit expansion. Credits granted to the customers are not in the form of cash and all the clearings take place in the books of the banks.
2. The funds created by the expanding banks on the basis of additional resources are transformed in full amount to other banks.
3. Banks strictly follow the prescribed minimum legal reserve ratios.
4. All the deposit liabilities are in the form of demand or transaction deposits.
5. All banks to the same type of external environment with regard to additional deposits, inflows and outflows.
6. The Credit Control Policy of the Central Banks remains constant.

Given the above assumptions, each rupee of reserves can support 1/r rupees of deposits so that the banking system as a whole can create deposits equal to a multiple of its excess reserves. In actual practice these assumptions, however, may not hold good and the actual amount of credit creation may be very less than the amount estimated in the illustrations. The following are the practical limits to the credit creation in the real world.

8.6.5.1 Drain on Cash

It is assumed that in the process of credit-creation no cash is withdrawn from banks. But it is quite possible that somewhere along the chain of deposit-expansion, some individuals may withdraw a part or all of the proceeds in their accounts in cash. This will correspondingly reduce the ability of banking system to expand deposits. The rate at which the public converts demand deposits into currency with the expansion of deposit money (i.e. currency deposit ratio) can be denoted by 'c'. The actual outflow of cash will be equal to ($c\Delta D$) and that the cash required as per prescribed reserve ratio would be equal to ($r\Delta D$). Hence, the total in the reserves due to currency drain and reserves will be equal to

$$\Delta R = r\Delta D + c\Delta D$$

$$\Delta R = (r+c)\,\Delta D$$

$$\Delta D = \Delta R\,1/(r+c)$$

$$= \Delta R/(r+c)$$

As given in earlier example of additional deposits, (ΔR) of Rs. 1000/- and reserve ratio of 20 per cent remain constant as before and if c is taken to be 25 per cent, then the amount of demand-deposit expansion will be Rs. 2,222 only instead of Rs. 5,000/-. It is quite clear from the illustration that inclusion of the cash drain acts as additional reserve requirement and hence this reduces the expansion potential of any given volume of excess reserves.

8.6.5.2 Excess Reserves

In the illustration it is assumed that banks maintain only as much reserves as legally required by the central bank. But in actual practice banks maintain more reserves than required legally. This is done in order to carry out clearing operations, money transfers and to meet aspirations of some customers who prefer cash transactions to cheque transactions. The amount of excess reserves also depends upon the rate of interest, size and location of banks, type of customers dealing with and so on. If rate of interest is low, banks prefer to have more liquidity than to go for investment. Similarly, in the case of banks located in rural areas, more liquidity is required. In the same way, cash transactions will be more among agricultural and small business customers than among industrial and big business customers. Hence, higher the cash reserve ratio to be maintained, smaller is the volume of credit creations and vice versa.

8.6.5.3 Variety of Deposits

In our example we have assumed that all the deposits are in the form of demand or transaction deposits. But in actual practice, a large portion of total deposits is in the form of saving deposits or term deposits. Cheques cannot be used to withdraw the term deposits since the latter cannot serve as money. As a result, an increase in time deposits will reduce the money supply. Similarly, a shift from saving deposits to time deposits also restricts the expansion of credit because a part of the banking reserves is used up to meet reserve requirements against the additional time deposits.

8.6.5.4 Lack of Synchronization

It is also assumed that there is no net loss of reserves on account of cheques written on the newly established primary deposits. When all banks operate simultaneously, new cheques are deposited and paid out in each bank will cancel out each other and hence there will be no loss of cash reserves. However, in practice, there will not be any such perfect coordination between additional primary deposits and the inflow of cheques drawn on other banks. Consequently, cheques written on new primary deposits may be a source of net drain of cash to other banks.

8.6.5.5 Monetary Policy of the Central Bank

The Central Bank of a country has the power to use various methods of credit control and thereby can monitor the quantity and direction of the flow of credit in the economy. During

BLOCK – III : CENTRAL BANKING

This block primely discusses about central banking and its monetary policy in detail. Moreover, it does not only explain the nature of central banking, functions but also the fiscal policy and the various instruments that were used to achieve its objectives.

This block contains the following 2 units.

Unit – 9: Central Banking: Functions and Credit Control

Unit – 10: Monetary Policy: Objectives and Instruments

boom the central bank may use its credit control weapons so as to restrict the quantity of credit and flow of credit to sensitive sectors. The methods such as Bank rate, open market operations, variable reserve ratios are known as quantitative credit control methods and they influence the total volume of credit available in an economy. Besides, the central bank may also use qualitative credit control method such as moral suasion; margin requirements etc., to control the flow of credit to sectors that are potential source of inflation in the economy.

8.6.5.6 Willingness to lend

A bank may have adequate reserves or ability to make loans but it may not be willing to advance loans. This is because the bank may not have faith in the credit worthiness of individual borrowers. Some times, the business environment may not also be conducive to create additional credit. There may be recession or gloom in the economy. In such situations banks may decide to hold an exceptionally large amounts of reserves in order to satisfy the desire for liquidity. If it fears a run, it is likely that it will wish to have extra funds immediately. Thus banks do not always expand credit as much as they can.

8.6.5.7 Willingness to Borrow

Even if banks have ability and willingness to lend, sometimes there may not be demand for loans. There may be very negligible demand for loans, particularly during depressions. Even very low interest rates may fail to create enough demand for loans. Credit creation will thus be larger during a period of business prosperity and it will be smaller during depressions.

The foregoing discussions clearly reveal that there are several practical limits to credit creation by the commercial banks. Given the cash reserve ratio of 20 per cent or 1/5, there is no guarantee that credit will multiply by five times. The reserve ratio itself is not in the hands of commercial banks but it is controlled by central bank of a country. Walter Leaf, a practical banker and Edwin Canaan, an economist argued that banks do not and cannot create credit at all. Canaan took analogy of cloakroom. Supposing 100 members of an officer club attend the club regularly. Each one of them brings one umbrella and deposits with the cloakroom of the club. The man at the counter knows pretty well that not more than 10 members demand umbrellas during an hour. He may, therefore, lend out 90 umbrellas for the day and may make some money. In this way, can we say that he has created 90 umbrellas? Clearly not. In the same way when banks lend a part of their deposits, they do not really create money. This argument may be true when it is applied to a single bank. But the banking systems as a whole can create much more credit than the deposits they receive.

8.7 SIGNIFICANCE OF CREDIT CREATION BY THE COMMERCIAL BANKS

Commercial banks are crucial institutions in the country. Among the financial intermediaries, they are the only institutions that are, able to create credit in the country. Demand deposits, which constituted bulk of nation's money supply, are primarily produced by the commercial banks. Commercial banks like any other corporate bodies are the profit-oriented institutions. They are run on commercial lines and they set examples to other business units as how to run a business unit on sound lines. The commercial banks are able to use the deposit money in productive activities, so that real output in the economy increases. As a result, employment and incomes of the people will also increase. During depression more credit is created to stimulate the economic activities in the economy so that it can move on the path of recovery, revival and prosperity. Thus consumption and welfare levels of the people also increase. With additional credit made available for traders, businessmen and industrialists, economic activities move in the desired lines. Credit also plays a pivotal in the corporate business, which issues shares, bonds, securities etc. Apart from banks, insurance companies, business, which issues shares, bonds, securities etc. Apart from banks, insurance companies, trading houses, small business and individuals etc., deal with credit, as credit is the convenient medium of exchange. Consequently, all the economic activities get monetised in the economy. This increases the effectiveness of monetary policy in the country.

8.8 SUMMARY

In the modern world money plays a crucial role in any economy. One of the components of money is the demand-deposit created by commercial banks. A commercial bank operates on three important principles viz., (i) the Principle of Security, (ii) the Principle of Liquidity and (iii) the Principles of Profitability. As these principles are conflicting in nature, a bank makes trade-off and chooses a correct combination of three principles. Nevertheless, liquidity principles assumes a greater importance, because it ensures confidence of the people in the banking system. The amount of liquidity to be kept depends upon several factors such as legal requirements, banking habits of the people, structure and development of banking system, development of money market, nature and size of deposits, and seasonal variations, general economic conditions etc. A bank has to choose a combination of assets and liabilities so as to ensure profitability and liquidity.

One of the important functions of commercial banks is credit creation. The commercial banks re in a position to create credit which is many times more than the initial deposit. The amount of additional credit created depends upon the cash reserve ratio. If the cash reserve ratio is 20 per cent or one-fifth, banking system will be able to create five times the original deposits. If the CRR is low at 10 per cent, more money will be available for credit creation and hence the banking system will be able to create 10 times the original deposits. On the other hand, if the CRR is high at 25 per cent, the banking system will be in a position to create credit at lower level of 4 times the original deposits. This is only a theoretically maximum limit for credit creation. In actual practice, there are several limits to credit creation, such as abnormal cash drain, necessity for excess reserves, larger proportion of time deposits, absence of synchronization, tight money-policy, lack of willingness on the part of banks, and lack of willingness to borrow on the part of borrow on the part of borrowers. Nevertheless, credit creation plays an important role in the economy. As noted by R.S. Sayers, "banks are not only purveyors of money but also in an important sense manufacturer of money".

8.9 CHECK YOUR PROGRESS

I. Answer the following questions in about 4 or 5 lines each.

1. What are the principles of Banking?
2. What is meant by liquidity of Banks?
3. What are determinants of liquidity of Banks?
4. What are the functions of commercial Banks?
5. What is a credit creation?
6. List the methods of credit creations.
7. Explain the different limitations to credit creations.

8.10 GLOSSARY

The Principles of Security : The principle of security states that bank should invest its funds in secure portfolios since it does the business with public money.

The Principle of Liquidity : The principle of liquidity states that the bank should keep adequate assets in cash or liquid forms, so that it can meet its obligations from the customers without any delay and difficulty.

The Principle of Profitability : According to the principle of profitability, a commercial bank should operate on sound commercial or business lines so as to maximize its profitability.

Real Bill Doctrines : The Real Bills Doctrine holds that a commercial bank should make only short-term self liquidating loans such as financing seasonal inventories etc.

Money Market : Money market is a market where short-term loans are borrowed and lent out.

Assets of Commercial Banks : The most important forms of assets of a commercial banks are cash, money at call and short notice. investments, advances, other assets and profit and loss account.

Liabilities of Commercial Banks : The most important forms of liabilities of a commercial ban are capital, reserve fund, deposits, borrowings from other banks and profit and loss account.

Cash Reserve Ratio : The part of deposits of a commercial bank which is kept with the central bank in liquid form is known as Cash Reserve Ratio (CRR).

Bank Rate : The rate at which the central bank of a country rediscounts the eligible bills and securities of commercial banks is known as bank rate.

Bills Market : The market in which trade bills of exchange are bought and sold is known as bill market.

8.11 MODEL EXAMINATION QUESTIONS

I. Answer the following questions in about 30 lines each

1. Explain the factors that determine the liquidity of a commercial bank.
2. Distinguish between primary and secondary deposits.
3. Illustrate the process of credit creation by commercial banks.

II. Answer the following questions in about 15 lines each

1. What are the basic principles of commercial banks?
2. Explain how a banker strikes a balance between liquidity and profitability.
3. What are the assets and liabilities of a commercial bank?
4. What are the assumptions of credit creation?
5. What are the limitations on credit creation?

8.12 SUGGESTED BOOKS

1. R.S. Sayers : **Modern Banking**
2. K.P.M. Sundaram : **Money, Banking, Trade and Finance**
3. T.T. Sethi : **Monetary Economics**
4. S.K Basu : **Current Banking Theory and Pracuce**
5. Diulio, Eugene A. : **The Theory and Problems of Money and Banking (Schaum's Outline Series).**

- Dr. D. Krishna Murthy

UNIT - 9 : CENTRAL BANKING : FUNCTIONS AND CREDIT CONTROL

Content

9.0 OBJECTIVES

The purpose of this unit is to throw light on the Central Banking and its functions and credit control.

After reading this Unit, you will be able to:

- know principles of Central Bank;
- analyse the functions of the Central Bank;
- examine the role of Central Banks in developed and developing countries; and
- distinguish between central banking and commercial banking.

9.1 INTRODUCTION

Central bank is an important financial institution in any sovereign independent nation in modern days. It is an apex banking institution. It controls all banking activities in a country. It plays a pivotal role in implementing the economic policies. Will Rogers considered Central Bank as one of the three great institutions of the World. The other two were fire and the wheel. Although some economists expressed serious doubts whether Central Banks could occupy such an exalted position, they agree that central banks do in fact form the arch of the monetary and fiscal framework in every country of the world. Their activities are obviously necessary for the fiscal and monetary operations of a country. The objectives and techniques of monetary management, of course, differ from country to country and also over a period of time even within a country according to a nation's economic goals and its institutional structure.

9.2 GENESIS OF CENTRAL BANKING

Even though the genesis of Central Banks can be traced back to 1668 when the first Central Bank viz, Riks Bank of Sweden was established, the concept of Central Bank is only of a recent origin. The Bank of England established in 1694 performed all essential functions of a modern Central Bank. The history of the Bank of England represents the history of the evolution of the principles and techniques of Central Banking. On the lines of Bank of England many central banks were established in Europe during 19th Century. The Bank of France which was established in 1800, performed all the economic activities relating to the State. The Bank of Netherlands was established in 1814, the National Bank of Denmark in 1818, the National Bank of Belgium in 1850, the Bank of Spain in 1856 and the Bank of Russia in 1860. The National Bank of Austria which was recognised as the Bank of Austria and Hungary in 1877, was established as far back as in 1817. The Bank of Japan was established in 1882 to restore order in the currency system of the country. The Bank of Italy was established in 1893 while the Swiss National Bank was established at the beginning the 20th century in 1907. Central Banks were also established in Portugal, Rumania, Bulgaria, Turkey, Java, Egypt and Algeria during the 19th Century. These banks were vested with the monopoly power of note issue. Thus the 19th century witnessed the establishment of central banks in many countries of the world particularly in Europe with all powers and functions and privileges. Nevertheless, the concept of Central Bank was not clearly articulated or understood before the turn of the century. More over, many eastern countries except Japan did not have central banks. Major countries of East such as India and China had no central banks. Even America established its Federal Reserve Bank only in 1913 and the Bank of Canada in 1934. The International Financial Conference held at Brussels in 1920 urged the countries that had no central banks to establish them as many as possible not only to stabilise their currency systems but also to foster international monetary co-operation. This gave impetus for many countries to establish Central Banks. Today there is hardly any country without a Central Bank. The changed economic conditions and the concept of nationalism entrusted the central banks with a status of each pillars of their monetary and fiscal framework of their respective countries.

9.3 DEFINITION OF CENTRAL BANK

Any definition of Central Bank should come from its functions. But the functions of central Bank varied from country to country and also over a period of time within a same country. Hence, it is difficult to give a precise and generally acceptable definition of Central Bank. According to Kisch and Elkin, "a central bank is that bank, the essential duty of which is maintenance of stability of the monetary standard which involves the control of the monetary circulation". M.H. De Kock has given a long definition of Central Bank, which emphasises several functions performed by the Central Banks. According to him, a Central Bank constitutes the apex of the monetary and banking structure of its country and it performs several functions such as monopoly power of note issue, regulation of currency, agency services for the state, custodian of cash reserves of commercial banks, management of foreign exchange, inter-bank clearance and credit control. In the opinion of Kent, a central bank is an institution, which is charged with the responsibility of managing the expansion and contraction of the volume of the money in the interest of the general public welfare. According to R.S. Sayers, the business of central bank as opposed to that of a commercial bank is to control the commercial banks in such a way as to promote the general monetary policy of the state. Hawtrey opined that a central bank is the lender of last resort. The Bank for International settlement defined a central bank as "the bank in any country to which has been entrusted the duty of regulating the volume of currency in the County". From these varied definitions, it is clear that a central bank is the apex financial institutions in a country and it is entrusted with the responsibility of controlling and regulating the monetary and banking systems of the country to ensure stability and also to promote growth.

9.4 TRADITIONAL FUNCTIONS OF CENTRAL BANK

As noted already functions of central banks vary from country to country and even within the same country, it varies over a period of time. Disregarding social, political and economic systems, traditionally a central bank performs the following seven functions.

9.4.1 MONOPOLY POWER OF NOTE ISSUE

One of the most important functions of central banks is the monopoly power of note issue. In almost all countries central banks enjoy exclusive privilege of issuing currency. No other bank in the country is authorised to issue notes. Infact, until the beginning of the 20th century Central Banks were known as banks of note issue. In the opinion of Vera Smith, it is the essence of the Central Bank's definition. The central banks enjoy much privilege and public confidence due to monopoly power of note issue.

There are four important reasons for entrusting the task of note issue to a Central Bank. They are

i) to ensure uniformity in the circulation of currency

ii) to have control over undue expansion of credit by commercial banks

iii) to give distinct prestige associated with note issue to central bank

iv) to have a share in the monopoly profits of note issue

v) to avoide political interference and pecuniary needs in the matter of Issue of notes and

vi) to ensure sound monetary policy.

There are several methods of note issue. Under gold standard, the volume of currency was backed by 100 percent gold reserves. This system was proved to be too expensive. Later proportional reserve system was introduced. Under this system, the bank was required to keep a certain percent of assets (say 40%) in the form of gold coins, gold bullion and foreign securities. This system also placed rigid limitations on the Central Bank Hence, another system known as minimum reserve system has been in vogue in several countries. Under this system, a minimum amount of gold, silver and foreign exchnage will be kept as backing.

9.4.2 BANKER TO GOVERNMENT

A Central Bank acts a banker, agent and adviser to the government. As a banker to the government, it carries out the banking accounts of the government departments, institutions and enterprises. It performs government's transactions involving purchases or sales of foreign currency, accepts deposits of the government, makes disbursements and transfers of funds for the governments from one account to another or from one place to another. It makes ways and means (short-term) advances to governments in normal conditions and extraordinary advances during depression, war or other emergency circumstances. As fiscal agent to government, it collects cheques, drafts on behalf of the government and credits them to government accounts. The central bank maintains the income and expenditure accounts of the government for the entire country free of charge.

The Central Bank also undertakes the administration and management of the national debt, including floating debt. It undertakes the issue and redemption of treasury bills, bonds and receipts. Further, as an agent of government, it receives taxes and other payments on government account. It also administers the foreign exchange control policy of the government. It represents the government at the specialised financial institutions in the country as well as at international financial institutions and conferences.

The Central Bank takes suitable monetary steps to regulate the supply of money in the country so as to ensure stability and growth in the economy. As an advisor to the government, the Central Bank gives advice to the government on important matters of economic policy such as deficit financing, devaluation of currency, trade policy, foreign exchange policy etc. Government gets expert advice from Central Bank on budget preparations and fiscal matters. But the responsibility of monetary management (monetary policy) is entrusted to the Central Bank.

In the words of De Kock, the Central Bank operates as the government's banker, not only because it is more convenient and economical to the government but also because of the intimate connection between public finance and monetary affairs.

9.4.3 BANKER'S BANK

Central Bank of a country acts as a banker to all the commercial banks. All commercial banks are required to keep a certain proportion of their deposits in the form of cash reserves. This proportion is fixed from time to time either by law or by custom. In many countries, the banks are required to maintain a certain proportion of their reserves in government or government approved securities. This is known as Statutory Liquidity Ratio. The Central Bank discounts Bills of commercial banks, making available to them the credit based on these ultimate reserves. The centralisation of cash reserves in the central bank is the source of great strength, power and prestige to the banking system of the country. When all the reserves of the commercial banks are pooled together in the Central bank, they can be used for meeting any crisis situation. The reserves can be used by the central banks to clear inter bank claims through the clearing house. During a slack season commercial banks may keep more reserves with the central bank while in busy season the commercial banks may withdraw their surplus cash reserves to meet the claims of the customers. Thus a central bank acts as a custodian of the cash reserves of other banks, safeguarding and protecting the interests of the nation is general and customers in particular. This may also help to divert excess reserves from the regions of surplus to the region of deficit. The centralised cash reserves can help to achieve a more elastic credit structure than if the same amount were scattered among the individual banks. More over, the commercial banks can conduct larger volume of business even with relatively smaller reserves if central bank helps them in need of the hour.

9.4.4 CUSTODIAN OF FOREIGN EXCHANGE RESERVES

In all countries central banks maintain gold and foreign exchange reserves. As noted already, the central bank is required by law to maintain minimum reserves against its note issue. These reserves help to settle deficit in balance of payments and to maintain stability in the external value of the currency or foreign exchange rates. It should be noted that under the system of fixed exchange rates there would be greater possibility to have either deficit or surplus in balance payments. Only when these deficits or surplus are cleared by depleting foreign exchange reserves, the external value of the currency can be maintained at the required level. It is the responsibility of the Central Bank to maintain stable exchange rates of the currency.

Central banks also maintain stable internal value of the currency. It should be noted that when the money supply is increased in excess of increase in real output, there would be inflation in the economy and as result the internal value of the currency falls. Similarly, when the money supply is not increased in tune with the increase in the real output, there will be depression and hence real value of the currency will increase. In order to avoid such extreme situations, the Central Bank of the country adopts the policy of "Controlled expansion" and there by helps to maintain stable internal value of the currency.

9.4.5 CONTROLLER OF CREDIT

Control of credit is considered to be the most important function of the central bank. According to De Kock "It is the function which embraces the most important questions of central bank policy and one through which practically all the other functions are united and made to serve a common purpose". The central bank issues currency in circulation and the commercial banks create credit many times more than the initial deposits that serve as equally good as currency. An effective monetary management requires a centralised control over both currency and credit. Hence, the central banks exercise control over excessive expansion of credit by the commercial banks. In modern times credit play an important role in the settlement of business transactions. Changes in the volume of credit may bring about changes in the value of money as well as in value of employment and income. This may bring about disturbances and maladjustment in the parts of the economic structure. A central bank being a bank of note issue and supervisor of banking activities in an economy can legitimately control the process of credit creation in the economy. A central bank uses two types of credit control measures viz., i) quantitative credit control measures and ii) qualitative credit control measures. You will know about these methods in the next section.

9.4.6 LENDER OF LAST RESORT

Bagehot coined the term 'lender of the last resort' in his book "Lombard Street" published in 1873. After the publication of this book, the responsibilities of Bank of England as the lender of last resort unequivocally recognised. After this, central banks recognised the function of "the lender of last resort" as one of the integral part of the central banking.

As a lender of last resort, central banks provide short-term credit to commercial banks mostly by rediscounting their eligible bills. The central banks generally impose stringent conditions and charge higher rates of interest in order to see that such facilities are not misutilised. According to De Kock rediscounting of Bills of Exchange increases the elasticity and liquidity of the entire credit structure and it should be seen that it is not abused.

9.4.7 CLEARING HOUSE

As a central bank keeps cash reserves of all commercial banks, it can easily discharge the function of acting as a clearing house or settlement bank for other banks in the country. Bank of England pioneered in the discharge of the function of clearing house. Soon central banks of other countries followed suit. Shaw, an authority on central banking, opined that clearing function is a mere matter of mechanism or book keeping. Other writers like Kisch and Elkin, Jauncey and Will consider clearing as an important function of central bank. As all banks maintain their accounts with central bank, the claims against one another are easily settled by simple adjustments in the respective accounts. This system provides economy in the use of money in banking operations, and strengthens the banking system.

9.5 INSTRUMENTS OF CREDIT CONTROL

As we have noted already in section 9.4.5, one of the important functions of a central bank is control of credit that is created by the commercial banks in the country. Excessive creation of credit may result in inflationary tendencies in the economic growth. Secondly there may be also speculative activities in the country that may discourage investments in socially and economically productive activities. Thirdly, there is a need to reduce inequalities in the income and wealth of the people so that there will not be wide gap between the rich and the poor. Lastly control of credit is also necessary to mitigate the harmful effects of trade cycles.

Central Bank of a country has broadly two types of instruments to control credit. They are a) quantitative credit control methods and b) qualitative credit control methods.

9.5.1 QUANTITATIVE METHODS OF CREDIT CONTROL

The quantitative methods of credit control aim at regulating the cost and availability of credit in the country. They are the general instruments without targeting any particular sector or activity in the country. The quantitative methods of credit control include i) bank rate, ii) open market operations, and iii) variable reserve ratios.

9.5.1.1 Bank Rate

Bank rate is the rate at which the central bank of a country rediscounts eligible bills and securities or advances loans against the approved securities to commercial banks. When the cash balances of commercial banks fall below the minimum level, the commercial banks have no other option but to approach the central bank. In order to secure funds from central bank, the commercial banks present the discounted bills of Exchange and other securities to the central bank. The rate at which the central bank rediscounts these securities is known as the bank rate. The bank rate determines the lending and borrowing rates of the commercial banks. Whenever bank rate is raised, the lending and borrowing rates of the commercial banks are automatically raised. Whenever bank rate is reduced the borrowing and lending rates are instantaneously reduced. Thus accordingly, the cost of borrowing by the public increases or falls. During periods of inflation, bank rate is raised and during days of recession and unemployment bank rate is revised downwards. That is how, the central bank influences the economic activities in the country. Hawtrey in his books "Art of Central Banking" and "A Century of Bank Rate" stated that variations in bank rate bring about variations in the short-term interest rates and the demand for working capital such as holding or buffer stocks. He argued that when bank rate goes up businessmen sell off their stocks and thereby the demand for working capital falls. Thus he assumed that businessmen are more sensitive to changes in short-term interest rates. But in reality it may not be so. Interest costs may form a very small proportion of total cost. When business prospectus are more businessmen will go by profits rather than by rate of interest.

Keynes in his book "Treatise on Money" holds that bank rate variations show their effect through changes in long-term rates of interest and the demand for fixed capital. According to him changes in production, employment and prices are brought about through changes in long-term rates of interest. It should, however, be noted that besides the rate of interest the demand for capital goods like machinery depends upon the marginal efficiency of capital and also on the demand for consumer goods (Acceleration Principle). But Keynes ignored the latter aspect completely.

The bank rate policy is based on the following assumptions:

1. There is a close relationship between bank rate and the market rates in the economy.
2. The bills market and the money (short-term credit) market are well developed.
3. Commercial banks do not have any prejudice to discount their bills.
4. The economy is highly flexible and it quickly responds to any changes in the interest rates.
5. Commercial banks do not keep excess reserves so as to avoid or nullify the actions taken by the Central bank.

But these assumptions are rarely met in the real world. The bank may be very successful in developed countries where most of the assumptions are fulfilled. But in underdeveloped countries, these conditions are not found and hence the bank rate may not work successfully in these countries. In underdeveloped countries, the influence of traditional non-banking operators such as moneylenders is more powerful. Hence, changes in the bank rate may not be effective in regulating the economy.

9.5.1.2 Open Market Operations

'Open market operations' is another quantitative instrument available at the disposal of central bank to influence the volume of money supply in the country. Open market operations refer to the buying and selling of government and other approved securities by the central bank in the money and capital markets.

Money-market securities mature in less than one year. The instruments traded in the money market are discountable at the central bank. They are partial substitutions for High Power Money. Along with the central bank, the participants in the money market transactions are commercial banks, business corporations, various public agencies, and other financial intermediaries. The instruments traded in the long-term capital markets are fixed interest perpetuities and equities that do not have any fixed maturity date. Commercial banks, insurance companies, industrial financial corporations, development banks, investment trusts, provident funds and other specialised financial corporations, development banks, investment trusts, provident funds and other specialised financial intermediaries participate in the trading. The instruments traded in this market are not money substitutes for high-powered money. The mechanism of working of open market operations is very simple. During periods of inflation and boom, there will be excess liquidity with the public and financial institutions. In order to mob up the excess liquidity, the central bank sells the government and other approved securities. Buyers of these securities pay the central bank by drawing on their cash deposits in the banks. The reduction in cash reserves forces banks to reduce their advances and loans to the public. This checks the inflationary tendencies in the economy.

During the periods of depression, the central bank performs the exactly opposite operations. It buys the approved bills and securities and it issues cheques on it. The individuals who receive these cheques deposit them in their respective accounts in the banks. The banks realize the proceeds of the cheques and thereby their reserve position improves. They are now in a position to advance more loans to revive the economic activities in the country and thereby employment, income and output in the economy rise.

Limitations of Open Market Operations

1. In the theory of open market operations, it is assumed that public and banking system possess or willing to possess the needed approved securities. But if as in underdeveloped countries, people do no have the habit of buying and selling government or approved securities, the method may not work properly.
2. In many underdeveloped countries, both money and capital market instruments do not exist. Under such circumstances, Open Market Operations will not be successful.
3. If commercial banks have excess cash reserves, open market sales of securities by the central bank may not be effective.
4. During the periods of boom, there will be general optimism about the future among the businessmen. Under such circumstances even if central bank reduces the reserves of the commercial banks through open market operations, the banks may to be ready to lend even at the reduced reserve levels. Similarly, during depression any amount of excess reserves may not stimulate the businessmen to borrow from banks. Thus, credit expansion and contraction are a matter of business psychology and mood of entrepreneurs.

The bank rate and open market operations are not competitive but complementary in nature. While the former influences the cost of credit, the latter affects the availability of credit. For successful functioning of the credit control policy both the methods are to be pursued simultaneously. The open market selling of securities may not be effective unless it is accompanied by increase in the bank rate. Other wise banks will take advantage of low bank rate to rediscount bills and thereby they will expand credit.

9.5.1.3 Variable Reserve Ratio

Another powerful and direct method of credit control is Affecting changes in the reserve requirements of the commercial banks. In all countries, the commercial banks are required, either by the custom or by law to keep a certain proportion of their deposits in the form of cash reserves with the central bank. This ratio varies from 3 percent to 15 percent in different countries. When the central bank wants to control credit creation by the commercial banks, the former will simply rise the cash reserve ratio say from 3 percent to 8 percent. This directly affects the amount of liquidity available with the commercial banks. Similarly, when the central bank wants to expand credit, it will simply reduce the reserve requirements of the commercial banks.

The variable reserve ratio is better than the open market operations because in the case of reserve requirements, the commercial banks must comply with the directives of the central bank by law. But there is no obligation on the part of the commercial banks to participate in the open market operations conducted by the central bank. More over, open market operations affect the credit creation by only those banks dealing with government and other approved securities. But variable reserve requirements affect all the banks.

The variable reserve ratios are also not free from limitations. Like the other two methods, variable reserve ratios also cannot prevent banks from lending especially during the periods of boom and prosperity. Secondly, during this period, there will be more inflow of gold and foreign exchange, which may counteract the shortages in domestic liquidity. Thirdly, frequent use of variable reserve ratio may create uncertainty and adversely affect the business prospects. In view of these, Harry Johnson opined that this method should be used very sparingly especially to control credit expansion.

9.5.2 QUALITATIVE CREDIT CONTROL METHODS

Besides above quantitative credit control methods that affect the total cost and volume of credit in a country, there are certain qualitative credit control methods that affect credit flows to particular sectors. These methods are also known as selective credit control methods. These include,

i. Regulation of consumer credit,

ii. Margin requirement,

iii. Rationing of credit

iv. Moral suasion

v. Publicity and

vi. Direct action.

9.5.2.1 Regulation of Consumer Credit

Expenditure on consumer durables is a potential source of inflation and is of strategic importance. Credit expansion for consumer durable goods becomes danger to the future stability of the economy.

The Federal Reserve Bank of USA first adopted this method of credit control in 1941 in order to keep the consumption spending at low level. Under this method, the central bank of a country is authorised to lay down terms and conditions for regulation of credit to consumer durable goods like Television, Refrigerator, Air-Conditioners, motor bikes, motor cars etc. The policy covers charge accounts, down payments, duration of time, and number of installments etc. Stiffer terms and conditions are prescribed during booms period and easier terms and conditions during depression.

9.5.2.2 Margin Requirement

Another important selective credit control method in the hands of the central bank is the margin requirements. Margin refers to the difference between the value of the securities (value of the projects) and the loan amount. The commercial banks do not generally lend loans to full value of the securities pledged or the value of the projects proposed. The loan amount will be a certain proportion of value say 80 percent of total value of the securities pledged or project cost. The remaining proportion is to be borne by the borrower. In case the central bank wants to contract credit, it will raise the margin requirement say from 20 percent to 40 percent. In that case the borrowers may be reluctant to borrow from the banks. Similarly, if the central bank wants to expand credit, it will lower the margin requirement say from 20 percent to 10 percent. This may give impetus for the borrowers to borrow from the banking system. The central bank may stop advancing of loans to commercial banks against any particular type of sensitive collateral such as foreign securities, sensitive commodities such as wheat, rice etc., which are highly susceptible for hoarding. In order to control speculative and black marketing in sensitive commodities with the help of bank credit, the central bank regulates the margin requirement.

9.5.2.3 Rationing of Credit

Credit rationing by central banks may take several forms. A central bank may put ceiling on rediscounting facility extended to commercial banks. The commercial bank in turn may put ceiling on the total amount of loan sanctioned to a particular sensitive sector or number of times it can extend loans to that particular sector.

9.5.2.4 Moral Suasion

The central bank may also persuade commercial banks to exercise restraint on the advancement or credit particularly during periods of inflation. It may issue circulars or use its moral influence to urge commercial banks not to advance credit to sensitive activities that may lead to speculative activities. The Bank of England and Reserve Bank of India exercised this method with a high degree of success.

9.5.2.5 Publicity

The central bank of a country may disclose its policy through monthly or quarterly reports, circulars publicize through radio, T.V. and news papers. The information relating to recognition or de-recognition of scheduled commercial banks, non-banking financial institutions is generally issued through newspapers so that public would be more cautious about fake financial institutions.

9.5.2.6 Direct Action

When all the above methods fail to yield results, the central bank can go for direct action against the earning commercial banks. Direct action may be in the form of refusal to provide rediscounting facilities to such of those commercial banks, which do not act in conformity with the policies of the central bank. The central bank may also refuse additional financial accommodation to commercial banks that do not keep the prescribed statutory liquidity ratio or prescribed cash reserve ratio with the central bank. Direct action involves exercise of coercion force. Hence it may produce adverse psychological relations between central bank and commercial banks. Hence a central bank opts for direct action only as a last resort.

9.6 ROLE OF CENTRAL BANK IN DEVELOPED COUNTRIES

In developed countries money and credit markets are well developed, well co-ordinated and well integrated. Hence sub-markets can quickly and promptly respond to changes in money and credit policies of a central bank. The impulses generated in one sub-market instantaneously percolate to other sub-markets. Hence, central bank operates in the most sensitive sectors and the results get transmitted to other sectors instantaneously. For instance, a fall in the rate of interest in one sub-market say, in commercial banks will automatically bring about fall in the rate of interest in other markets such as co-operative banks, regional rural banks etc.

When bill market is well developed, the policies of central bank will be more effective. This is because the commercial banks discount the Bills of Exchange relating to business activities and the central bank in turn rediscounts the eligible bills of exchanged at some particular rate of interest known as "Bank rate". By manipulating the bank rate in accordance with the general economic condition of the economy, the central bank can exercise control over the entire economy. In addition to bank rate, other methods of credit control such as variable reserve ratios, open market operations as well as qualitative credit control methods would be more effective in these countries.

9.7 ROLE OF CENTRAL BANK IN UNDER – DEVELOPED COUNTRIES

In under developed countries money and capital markets are not well developed. Hence, a central bank has to play an important role not only in the development of money and capital markets but also in inculcating the banking habits among the people. Towards this end, a central bank has to play a positive and dynamic role in the development of financial institutions particularly the commercial banks. Besides providing short-term and long-term credit to business and industry through commercial banks and term lending institutions, a central bank has to see that adequate credit is deployed to agriculture though co-operative societies and specialised institutions in order to cater to the needs of agriculture and rural development. The central bank should also promote Bill Market, Acceptance Markets etc., on par with those in developed countries.

Since commercial banks provide the most important link among various segments of the money market, a central bank should see that commercial banks and their branches are opened up in various parts of the country. According to R.S. Sayers, in underdeveloped countries in view of inadequate development of banking system, a central bank must take up ordinary banking facilities to the community besides the usual supervisory functions. A central bank must pursue liberal policies to foster banking habits particularly in rural and semi-urban areas of the country by extending all the facilities. It should facilitate the development of well-knit, effective and efficient money and capital markets.

9.8 CHANGING FUNCTIONS OF CENTRAL BANKS

The functions of central banks particularly for those established after the Great Depression have widened. In addition to the traditional objectives of regulating the issue of notes, maintaining a sound monetary banking and credit system and preserving the external stability of the national currency unit and acting as banker and financial advisor to the government, many more new functions were added. The Royal Commission on Australian Monetary and Banking System recommended that the Australia Common Wealth Bank's chief objective should be the reduction of fluctuations in the general economic activities. These include contributing to an orderly and balanced economic development of the country, promoting full employment, and raising the national income. Amendments made to Reserve Bank of India in 1956 explicitly stated that the objective of RBI was not only to secure monetary stability, but also to foster the growth of the monetary and credit system in the best national interest and help in the fuller utilisation of the country's productive resources. The objective of developmental function of RBI has been very clear in the gradual, evolution of its monetary policy. There may be conflicts among these objectives. For instnce, the objective of maintenance of full employment and promotion of the maximum development of the country's resources may be inconsistent with the objective of internal monetary stability. In the post-war period full employment had come to be recognised as an important objective of central banking policy taking precedence over traditional objectives even if there is a conflict. In the publications of Federal Reserve System, such expressions as 'orderly economic growth', steady development of the nation's resources' and 'growth of the country' are frequently found. Such policy objectives could not be found in the statute books of the central banks of the pre-war period.

The new objective of 'economic growth' is not implicit in the traditional objectives of 'full employment' or stabilisation'. The term 'stabilisaion' connotes stability at an absolute level and without any references to the economic potential existing at different periods. Stability may lead to growing unemployment and idle capacity as population and invested capitals continue growing. Pursuance of full employment objective alone may not secure the economic growth. Policies designed to secure full employment may not achieve growth objective. Supplementary or alternative policies may have to be employed. Similarly, pursuance of growth objective may not result in full employment. It may.be possible under the conditions of mass unemployment and idle-resources but it may not be certainly possible under the conditions of inflation and excess expenditure.

Full employment is essentially a short-term concept where as economic growth is a long-run objective. Hence, there may be conflict between the two at times. As observed by Whittlesey 'ideal output under the full employment objective is the country's economic potential at the prevailing level of technology whereas that under the economic potential at the progressive technology. Technological advances, changes in social, economic and political framework may continuously modify the targets towards economic growth.

How does central bank promote economic growth? Mere creation of money does not itself initiate the process of economic expansion. It may be a necessary condition but not a sufficient condition of economic growth. The process of economic expansion depends upon a large number of real factors. Nevertheless, a central bank can contribute to economic growth by pursuing an apropriate monetary policy. The monetary policy that maintains a reasonable degree of price stability and keeps employment at reasonable level may set stage for economic development. The objectives of economic growth like the traditional objectives of exchange and price stability is not an anchor to cling to but a gleam to be followed. In developing countries in particular where inflation is a constant threat, one should be careful in making economic growth an obligation on the monetary authorities. There may be also administrative and political pressure on the monetary authorities. But in underdeveloped countries where people are very keen to achieve rapid economic growth within a reasonable time period, central banks cannot take a passive role. It has to assume an active role in the promotion of economic growth.

9.9 COMPARISON BETWEEN CENTRAL BANKING AND COMMERCIAL BANKING

Keeping in view the objectives and functions of commercial banks and central bank, one can make distinction between the two, highlighting both similarities and differences between them.

9.9.1 SIMILARITIES

The following are the major similarities between commercial banks and central bank.

1. Both central bank and commercial banks are the monetary institutions dealing with money.
2. The central banks as well as commercial banks create money in the economy.
3. In recent years like central bank, commercial banks also deal with foreign exchange.

9.9.2 DIFFERENCE

In spite of these similarities, there are several differences between a central bank and commercial banks. The following are the major differences between a central bank and commercial banks.

1. Ownership

The central bank is generally owned by the state. But the commercial banks may be owned by the state or by private individuals as shareholders.

2. Right to note Issue

A central bank has the monopoly power of issuing legal tender money. But a commercial bank does not have such a power. But it has the power to create demand deposits by which the public gets the power to issue cheques. These cheques are as good as legal tender money.

3. Profit Motive

A central bank does not operate on profit motive. Profit motive is only a secondary objective to a central bank. The primary objective of a central bank is service motive and national economic interest. On the other hand, the overwhelming objective of a commercial bank is profit motive. It operates on sound business principles aimed at maximisation of profit.

4. Foreign Exchange Reserve

It is responsibility of the central bank to maintain foreign exchange reserves of a country so as to ensure stable exchange rates and there by equilibrium in the balance of payments. But commercial banks deal only with foreign exchange transactions without any responsibility to maintain equilibrium in the balance of payments.

5. Banker to Government

A central bank is a banker to the government and acts as an agent of a government in many economic transactions of the government. It also supervises all banking activities in a country and hence it is called banker to the banks.

6. Relation with the Public

A central bank does not deal with the public directly. On the other hand, a commercial bank deals directly with the public.

7. Supervisory Role

A central bank is given special powers to control supervise and regulate the working of commercial banks. The commercial banks, on the other hand, have to obey and abide by the directions given by the central bank in the best interest of the economy. A central bank acts as a lender of last resort and as a clearinghouse for all the commercial banks.

In spite of several differences between a central bank and a commercial bank, the stability of the monetary system of a country greatly depends upon the healthy co-operation and co-ordination between the central bank and commercial banks. Both of them have to play an important role in the development of monetary and capital markets in a country and for over all economic development of a country.

9.10 SUMMARY

Every sovereign independent country has a central bank of its own. A central bank is an apex financial institution in a country. The origin of a central bank can be traced back to the Riks Bank of Sweden that was established in 1668.However, Bank of England was the first central bank to perform all the functions of a modern central bank. It was established in 1694. During 19^{th} century many European, Asian and African countries have established central banks of their own. The main principles of central banks are securing national welfare, maintaining financial and monetary stability and promoting economic growth and welfare of the country. Modern central banks perform several functions such as monopoly power of note issue, banker, agent and advisor to the government, banker of banks, custodian of foreign exchange reserves of a country, controlling credit creation, clearinghouse and lender of last resort to banks. Besides, the newly established central banks in developing countries have also

assumed the responsibility of promoting economic growths and increasing general economic standards of the people. It is generally believed that central banks would function more effectively and efficiently in contrast with developed money markets that with underdeveloped money markets. Hence, development of money and capital markets is another important function of central banks. In the light of functions of the central banks and commercial banks, we can distinguish between a central bank and commercial banks.

9.11 CHECK YOUR PROGRESS

I. Answer the following questions in about 4 or 5 lines each.

1. Define a central bank.
2. State the function of a central bank.
3. What are the quantitative instruments of credit control? Why are they called so?
4. What are the qualitative instruments of credit control? Why are they called so?
5. What are the assumptions of bank rate policy?
6. What do you mean by margin requirement?
7. Why do central banks function more effectively in developed countries?
8. What are the major obstacles for the working of a central bank in underdeveloped countries?
9. Do you think that central banks should assume the role of promoter of economic growth in underdeveloped countries?
10. Is there any conflict between growth and stability objective?
11. What are the similarities between a central bank and a commercial bank?
12. State the differences between a central bank and commercial banks?

9.12 GLOSSORY

Central Bank : An apex bank in a country that is entrusted with the responsibility of controlling the nation's money supply and credit as well as supervising the banking system in the country is known as Central Bank.

Commercial Bank : Commercial Banks are a type of financial institutions that act as intermediaries between savers and investors. They accept deposits from the public and advance loans to those who need them.

Monopoly of Note Issue : A Central bank's exclusive privilege of issuing currency in the country is known as monopoly power of note issue.

Banker's to Bank : A Central bank which is entrusted with the function of supervising the activities of all the commercial banks in the country is known as banker's bank.

Banker to Government	: A central bank, which acts as the banker, agent and advisor to the government, is known as banker to government.
Custodian of Foreign Exchange	: A central bank is entrusted with the responsibility of maintaining the foreign exchange reserves of a country. Hence, it is known as the custodian of foreign exchange reserves.
Clearinghouse	: The transactions of different commercial banks in the country are cleared through the central bank as it maintains the cash reserves of all commercial banks. Thus a central bank acts as the clearinghouse.
Lender of Last Resort	: A Central bank of a country comes to the rescue of commercial banks when the latter do not have any other source of finance. Hence, a central bank is known as lender of last resort.
Statutory Liquidity Ratio	: The part of deposits of a commercial bank, which is invested in government or government-approved securities, is known as Statutory Liquidity Ratio.
Primary Deposits	: The deposits of the public in the form of cash, cheques, bills etc., that are deposited in a bank for the first time are known as primary deposits.
Secondary Deposits	: The additional deposits that are created from out of primary deposits are known as Secondary Deposits.
Cash Drain	: The rate at which the public converts the demand deposits into currency as the level of deposits increase is known as cash drain.

9.13 MODEL EXAMINATION QUESTIONS

I. Answer the following questions in about 30 lines each

1. Examine origin and principles of modern central banks.
2. Analyse the major functions of a central bank.
3. Distinguish between a central bank and commercial banks

II. Answer the following questions in about 15 lines each

1. Define a central bank.
2. What are the principles of a central bank?
3. Sketch the origin of modern central bank.
4. State the functions of a modern central bank.

9.14 SUGGESTED BOOKS

1. R.S. Sayers : **Modern Banking**
2. K.P.M. Sundaram : **Money, Banking, Trade and Finance**
3. T.T. Sethi : **Monetary Econoimcs**
4. S.K. Basu : **Current Banking Theory and Practice**
5. Diulio, Eugene A. : **The Theory and Problems of Money and Banking** (Schaum's Outline Series)

- Dr. D. Krishna Murthy

UNIT – 10 : MONETARY POLICY – OBJECTIVES AND INSTRUMENTS

Contents

10.0 OBJECTIVES

The main objective of this unit is to explain the objectives of monetary policy and its instruments.

After reading this lesson you will be able to:

- know the meaning and definition monetary policy;
- discuss the instruments of monetary policy;
- analyse the objectives of monetary policy;
- examine the role of monetary Policy during depression and inflation;
- assess effectiveness of monetary policy in promoting growth;
- evalute the lags and limitations of monetary policy and,
- understand the applicability of the monetary policy to underdeveloped countries.

10.1 INTRODUCTION

Promotion of economic growth with full employment and price stability has become an overriding objective of modern governments. In order to achieve these economic and social goals, the governments evolve appropriate macro economic policies. Two important components of macro economic policy are monetary policy and fiscal policy. The classical economists during the 19th century advocated monetary policy to regulate the functioning of the economy. In fact, it was the single established instrument of macro economic policy. It was believed that changes in aggregate money supply affected the general level of prices rather than output and employment since by assumption there was full employment always. Moreover, during the 19th century in almost all-European countries international gold standard was in vogue. Under gold standard, the monetary policy was used to maintain stability in the external value of the currency and to attract more inflow of gold by keeping rates of interest at high level. The so much of faith was placed on the monetary policy during the 19th century as a means of regulating the economy, was largely lost during 1920s and 1930s. During the Great Depression, even low rates of interest could not bring about revival in the economy. The fiscal policy oriented by the Keynesian revolution became more effective in combating the Great Depression and hence monetary policy was relegated to the background. The development of inflationary pressure in most economies after the outbreak of Korean War in 1950s monetary policy once again came to the forefront. Monetary management became an important tool for regulating economic activity. Under the influence of monetarism, the scope of monetary policy has been greatly widened.

10.2 DEFINITION OF MONETARY POLICY

Monetary policy consists of all measures applied by the monetary authorities with a view to producing a deliberate impact on the cost and volume of money so as to achieve the objectives of general economic policy. It aims at regulating the flow of currency, credit and other money substitutes in an economy with a view to influencing the real variables in the economy. Monetary policy may be defined as "management of the expansion and contraction of the volume of money in circulation for the explicit purpose of attaining a specific objective such as full-employment". Harry G Johnson defined monetary policy as "a policy employing the central bank's control over the supply of money as an instrument for achieving the objectives of general economic policy". In other words, monetary policy refers to the use of official instruments at the disposal of the central bank to regulate the availability, cost and use of money and credit with a view to achieving the optimal levels of output, employment, price stability, equlibrium in external balance or any other goals of government's economic policy.

10.3 INSTRUMENTS OF MONETARY POLICY

The instruments of monetary policy are same as the instruments of credit control at the disposal of a central bank. The first category tools consist of quantitative instruments such as bank rate, open market operations and changes in the reserve requirements. The other category of weapons is known as qualitative or selective credit control methods. They include, Regulation of consumer credit, Margin requirement, Rationing of credit, Moral suasion, Publicity and Direct action. The quantitative weapons regulate the cost and total quantity of credit available in the country. The selective credit control methods, on the other hand, aim at regulating credit to particular sectors of the economy even though plenty of credit available for other sectors of the economy. For a very long time, quantitative methods were employed to regulate the economic activities. The growing complexities of economic system in recent years necessitated the employment of new and innovative weapons such as selective credit control methods to deal with the changed situations.

10.4 OBJECTIVES OF MONETARY POLICY

During the pre-Keynesian days monetary policy was the sole instrument for regulating the aggregate economic policy. It was designed to maintain gold parity of the monetary units, stability in exchange rates, and internal purchasing power of money. During 1930s when fiscal policy was pressed into service to maintain full-employment, monetary policy also has to shoulder the responsibility. During 1950s when many countries of the world got liberated from the British colonial rule, economic development became an overriding objective of both fiscal and monetary policies. Later during 1970s when inflation became a major problem, the monetary policy re-surged with more vigor and new weapons to combat inflation. Thus the objectives of monetary policy are not stationary but changed with the passage of time and need. Nevertheless, the following are the major objectives of the monetary policy:

i. Neutrality of money

ii. Stability in exchange rates

iii. Equilibrium in balance of payments

iv. Maintenance of price stability

v. Full-employment

vi. Promoting Economic Development

10.4.1 NEUTRALITY OF MONEY

The advocates of neutrality of money believe that the worst disturbances in the modern economy are those originating in the monetary change. Changes in the quantity of money can generate oscillations in the economic systems. If Central bank follows a cheap money policy (bringing down the rate of interest), it will bring about a state of prosperity. On the other hand, if it follows a dear money policy (raising the rate of interest), it will have depressing effect on economic activities. Neutrality of money does not mean that money supply (or credit creation) should be kept constant. The money supply be kept constant. The money supply should be changed to such an extent as to counter balance the fall or rise in the velocity of money in circulation. Similarly, the money supply should be increased in tune with the increase in the real output. This policy often referred to as controlled expansion. Economists like Wickstead, Hayek and Robertson feel that the main objective of the monetary policy should be neutrality of money so that crucial economic variables like income, output, employment and prices are not affected.

10.4.2 STABILITY IN EXCHANGE RATES

Maintenance of stable foreign exchange rates was one of the traditional and important objectives of monetary policy. In view of paramount importance of international trade in the national economies of countries such as England, Denmark, Japan, Germany etc., the objective of stable exchange rate was given precedence over stability in output and employment. During the era of gold standard, gold movements across the countries took place in order to ensure stable foreign exchange rates although they disturbed the internal stability in employment, output, and income and price levels of these countries. This imposed on them the periods of inflation and deflation. With the rise of nationalism, the objective of internal stability took precedence over that of external stability. However, in underdeveloped countries, in view of rising imports of raw materials, capital goods etc. the need for exchange stability once again came to the forefront in these countries also.

10.4.3 EQUILIBRIUM IN BALANCE OF PAYMENTS

Another important objective of monetary policy is achievement of equilibrium in the balance of payments. When there is deficit in balance of payments, short-term interest rates are increased. This will have a two-fold effect, one on the current account and other on the capital account of the balance of payments. The rise in the rate of interest will have contracting effect on Investment, employment, output and incomes and consequently the demand for imports also declines. Similarly, the rise in the short-term rate of interest will attract more inflow of foreign capital from abroad and thereby it will have cushioning effect on the capital account of the balance of payments. Thus there will be cushioning effect on the capital account of the balance of payments. Thus there will be equilibrium in the overall balance of payments. The opposite process will take place when the rate of interest is lowered in order to reduce surplus in the balance of payments and to achieve equlibrium in the balance of payments. In view of this two fronted attack on balance of payments, Robert Mundel, the Nobel Laureate, assigned monetary policy to attain equilibrium into balance of payments and fiscal policy to achieve full-employment.

10.4.4 MAINTENANCE OF PRICE STABILITY

So long as Gold Standard was in vogue, exchange rate stability was the primary objective of monetary policy. When gold standard disappeared from the World, price stability became an overriding objective. Price instability and the fluctuations in business activity produce undesirable effects in the economy. An excessive rise in the price level may develop 'run-away' inflation that destroys economic prosperity. It leads to rising inequalities in the distribution of income and wealth. Similarly, falling price level would lead to business failures, unemployment and curtailment of production. Both the evils must be wiped out and price stability must be ensured. In order to achieve price stability, monetary policy is employed. Monetary policy is relatively more powerful to combat inflation than unemployment.

10.4.5 FULL-EMPLOYMENT

Modern states are welfare states. They aim at ensuring full employment even in it is inconsistent with the objective of achieving price stability. Crowther opined that the main objective of monetary policy of a country is to bring about equilibrium between savings and investments in the country at the level of full-employment. Keynes clearly demonstrated the ineffectiveness of monetary policy during depression to generate employment opporrtunities. The developed countries generally remain at the full-employment or at near full-employment or at near full-employment level. The problem in these countries is how to sustain the economy at the full-employment level. But in under developed countries, the problem is how to create employment opportunities and how to sustain the economy at the full employment level. In both the types of countries, monetary policy is deployed to create and sustain the economy at the full-employment level. But a monetary policy is not as effective as fiscal policy to ensue full employment in the country.

10.4.6 ECONOMIC DEVELOPMENT

Economic growth has become one of the objectives of monetary policy in recent years. Economic growth implies sustained rise in the GNP percapita over a long period of time. Monetary policy seeks to promote economic growth partly by maintaining equilibrium between the total demand for money and total production capacity of the economy and partly by creating favourable conditions for savings and investment. The demand for money is bound to go up in developing economies on account of rising investment expenditure.

10.5 ANTI-CYCLICAL MONETARY POLICY

Business cycles are a kind of fluctuations that occur in business activity with a certain degree of regularity and periodicity. Business cycles are wave like movements around equilibrium or trend line, in the aggregate economic variables like employment, production, income and prices. According to Borns and Mitchell, a normal trade cycle consists of four closely interrelated phases, viz, revival, expansion, recession and contraction. The peak or ceiling, on the one hand, and depression or floor, on the other hand, represents crucial turning points in the trade cycle. The overwhelming objective of an economic policy is to mitigate the harmful effects of business cycles and to ensure full employment with price stability. Monetary policy is possessed with adequate instruments to deal effectively with the business cycles.

10.5.1 MONETARY POLICY DURING DEPRESSION

Depression is an economic situation characterised by low marginal efficiency of capital on account of declining prices, incomes, output and employment and the resulting uncertainties. The interest rates are very low and there will be high liquidity preference. The objective of the monetary policy during depression should be,

i. To offset the declining velocity of money;

ii. To satisfy the demands for precautionary and speculative motives for money;

iii. Stimulating cash position of banks and non-bank organisations;

iv. Encouraging credit for investment and counsumption;

v. Bringing down the structure of interest rates with a view to boosting investment;

vi. Creating confidence in the security market by stimulating security prices.

In developed countries, it is easier to lower the rate of interest than wage rates because there will be stiff opposition to downward revision of wages by the trade unions. The reduction in interest rates besides stimulating investment activities also encourage hire purchase and installment buying of consumer durable goods. But in underdeveloped countries, low interest rates may discourage savings.

It is also argued that monetary policy is not effective in pulling the economy out of depression. The rates of interest are already very low during the depression. Any injection of money into the economy will not further depress the rate of interest but will be absorbed to strengthen the liquidity preference of the people and firms. There are waves of uncertainty and business pessimism. Under such circumstances even very low interest rates may not encourage businessmen to go for additional investment inspite of low interest rates. As noted by Crowther, "Any amount of water taken to horse will not make it drink unless it is thrust". Thus even very low interest rates fail to stimulate investment activities in the economy. In view of this it is argued that the cheap money policy of the central bank hardly has any significant effect during depression. The gap between savings and investment instead of lowering will actually increase.

Consider diagram 10.1. In the Diagram the rate of interest is measured on the vertical axis, savings and investment on the horizontal axis. Initially intersection of Io and So investment and savings curves give the ro equilibrium rate of interest. Savings and investments are equal and hence there is no gap between them. But during depression due to general business pessimism and low prospects for investment the investment curve shifts to left. Consequently, at the existing rate of interest there will be savings and investment gap known as 'deflationary gap' to the extent of PQ. When the central bank takes initiatives and lower the rate of interest to r1, the deflationary gap narrows down but still it exists. Since due to the liquidity trap, the interest rate cannot be further reduced beyond this minimum level, the deflationary gap also continues. Thus monetary policy is not completely effective in pulling the economy out of depression.

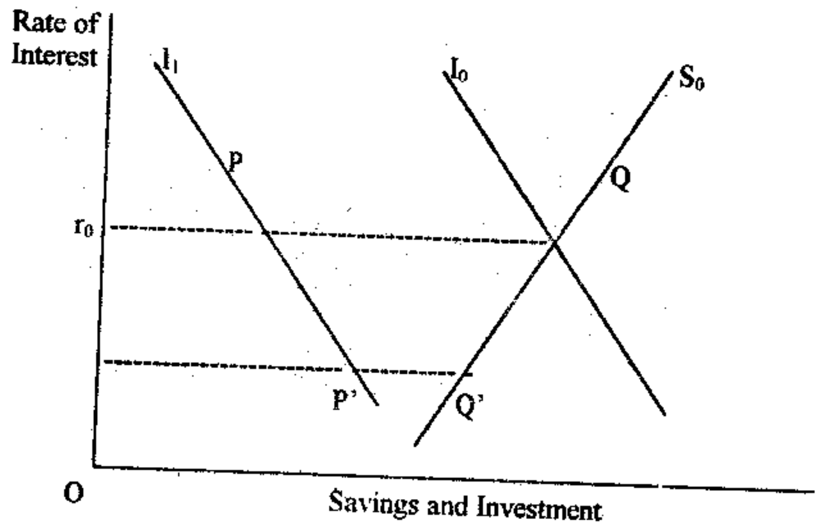

Diagram 10.1 Deflationary Gap

Nevertheless, the monetary policy is considered to be one of the important measures for maintaining full-employment. As stated by K.K. Kurihara even if credit (monetary) policy is incapable by itself of turning the tide of depression, it can increase the overall liquidity via open market operations and other conventional methods. By this way it can create monetary atmosphere necessary for the successful operation of more effective measures of fiscal and other policies.

10.5.2 MONETARY POLICY DURING INFLATION

Inflation is yet another phase of business cycle characterized by rising prices, incomes, output and employment. In view of these, there will be high marginal efficiency of capital. There is a general wave of optimism in the economy. Business activities expand rapidly. Hence, banks are also willing to make additional loans to the public and businessmen both for consumption and investment activities. Consequently, investments on fixed capital, plant and machinery expand. Consumption expenditure also rises steadily.

Unfortunately, all may not go well forever. The steady rise in consumption and investment expenditures will make credit conditions extremely difficult. Banks would find it difficult to cope up with the ever-growing demand for credit. Under such circumstances, the monetary policy should strive to slow down the expansion of money supply, bring about increase in the velocity of money and raise the rate of interest upwards. By employing the general instruments of monetary policy, the central bank can control the expansion of money supply and cost of money. The idea is to keep the inflation under control and to counteract the boom conditions and not to plunge the economy into depression.

Monetary policy is more effective during the periods of inflation than that during the periods of depression. It is easier to raise the rate of interest that to lower it. The reserve ratio can be increased along with the open market operations with ease. The margin requirement and consumer credit conditions can also be tightened without much difficulty. If action is initiated at appropriate time, a boom can be prevented from turning into a full-fledged inflationary situation.

The effectiveness of monetary policy during inflation is severely limited by the following factors.

Firstly, if the inflation in the economy is primarily due to demand pull factors, the aggregate demand would continue to rise inspite of restrictive monetary policy of the central bank. Even, if the stock of money is kept constant, the public might succeed in increasing the effective money supply simply by increasing the velocity of money in circulation. This may neutralise the restrictions imposed by the central bank on the supply and cost of money. Consequently, monetary policy becomes ineffective.

Secondly, during inflation, the commercial banks might finance the expanding business activity through the portfolio adjustment. In order to over come the credit crunch imposed by the central bank by means of open market operation or by means of raising the reserve ratios, the commercial banks may sell government securities in the market and the proceeds may be used to extend credit to the borrowers. This portfolio adjustment many not increase the total volume of money in the economy, but it will transfer the resources from government whose marginal propensity to spend is less to an agency whose marginal propensity to spend is very high. It should, however, be noted that in the process of selling securities, the prices of securities may be depressed and there may be capital loss. At the same time there will be component of outside lag is the production lag. This lag refers to the time lag between the changes in the spending decisions and their effects on the target variables such as employment, output and prices. These target variables may not change immediately after taking decision by the economic units. It will take some time to readjust production, consumption and prices. This time lag is known as production lag. These two lags are outside the purview of the central bank and hence these are known as outside lag.

10.7 MONETARY POLICY AND NON-BANK FINANCIAL INTERMEDIARIES

Financial intermediaries can broadly be divided into two classes viz., Banks and Non-bank Financial Intermediaries (NFI). Both types of financial institutions create financial claims and engage in multiple expansion of their liabilities (credit). The NFI include investment houses, construction companies life insurance corporations, loan associations, chit funds, credit unions, postal savings systems, land banks etc. Banks perform the primary role of purchasing securities and creating credit in the economy. Non-bank financial intermediaries, on the other hand perform only intermediary roles of purchasing primary securities and creating non-monetary claims on themselves. These claims take the form of savings deposits, shares, equities and other obligations. These claims are close substitutes for money and hence may increase the interest elasticity of demand for money. Activities of NFI may affect both money and capital market transactions. They may also influence the velocity of money in the long run. The activities of NFI will have influence on the real variables of the economic system as well as on the banking system. There are some important differences between banks and NFI. The time involved in the process of credit creation by commercial banks is much shorter than that in the case of NFI. Secondly, there may be important leakage in the credit creation by the NFI. But there may not be much leakage in the credit created by the commercial banks.

In spite of these differences, the activities of NFI pose great danger to the effectiveness of monetary policy because the activities of NFI do not come under the purview of central bank. They are outside the control of the central bank. For instance, when the central bank follows a tight money policy to restrict credit, the NFI can extend the credit since they cannot be regulated either by quantitative or by qualitative credit control methods of the central bank.

In view of these problems Gurley and Shaw emphsised the significance of NFI in influencing the real variables in USA. The Radcliff Committee Report also observed that both banks and NFI create liquid assets or can make the existing assets more liquid. Hence, they pleaded that NFI also should be brought under the purview of monetary policy, other wise the efficacy of the monetary policy will be severely weakened. There are, however, others such as J. Ascheim, Shapiro and Warren Smith who argued that in the presence of NFI, the monetary policy is not weakened but strengthened. Even though the debate is inconclusive, the broad consensus is that the overall liquidity in the economy increases in the presence of NFI along with banks and the tentacles of monetary policy should also be extended to the NFI also.

10.8 MONETARY POLICY AND ECONOMIC GROWTH

Economic growth is one of the avowed objectives of modern governments particularly in underdeveloped countries. Economic growth is defined as sustained rise in the real per capita income over a long period of time. It results in the increase of total output, production of goods for the satisfaction of human wants. Monetary policy helps in achieving sustained economic growth in two ways. **Firstly**, it ensures equality between total demand for money and total production capacity of the economy. **Secondly**, monetary policy creates favourable environment for mobilizing savings and investment and thereby capital formation.

10.8.1 HOW DOES MONETARY POLICY PROMOTE ECONOMIC GROWTH?

In a developing economy there will be continuous rise in demand for money on account of several reasons.

Firstly, there will be increased demand for money due to rising investment expenditure. The monetary authorities should increase the stock of money roughly at the rate of increase in rate of real output.

Secondly, the monetary policy should be flexible enough to cater to the needs of economy in different conditions. When the total demand for money rises in such a way as to threaten the price level and create conditions for unsustainable boom conditions, a restrictive or dear money policy should be pursued. Similarly, when a deficiency of total money demand causes decline in prices, production and employment, the monetary policy should be expansionary so as to bring about revival in the economy. In other words, economic growth can be promoted only when the monetary policy averts both inflationary and deflationary conditions and ensures price stability in the economy.

Thirdly, as noted already a growth oriented Monterey policy should create favourable environment for savings and capital formation. How could savings be promoted? It is again by ensuring stable prices in the economy savings could be promoted. No body would save during the periods of substantial as the value of money goes down steeply. Savings is the principal source of investible resources and capital formation. Hence, without savings there would be no capital formation and economic growth.

Fourthly, the growth oriented monetary policy should seek to ensure differential impact on different sectors of the economy. Through selective credit control measures if central bank is able to ensure a moderate rise in the prices in industrial sector and a mild deflationary conditions in agricultural sector, the economy as a whole would stand to gain in the form of substantial structural changes in the economy.

Lastly, it is some times argued that a tight money policy hampers economic growth. But it is not really so. Only when the tight money policy is applied during periods of recession, it will hamper growth. When it is applied to prevent an unsustainable boom, a tight policy is really a boom to economic growth.

10.9 MONETARY POLICY AND UNDERDEVELOPED COUNTRIES

The monetary policy is less effective and even secondary to fiscal policy to ensure full employment and price stability in developed countries. Under such circumstances, its role is still limited in underdeveloped economies. This is because, there is no conducive atmosphere for the successful working of monetary policy in these countries. In underdeveloped countries money and capital markets are immature. The credit instruments such as Bills of Exchange, stocks and securities have not yet developed to the full extent. There is vast non-monetised sector. The currency component of total money supply is substantial. Institutional credit flows confine only to industry, traders, and to commercial agriculture such as plantations. Small farmers, marginal farmers, small businessmen, have no access to money and credit markets. They still depend upon village moneylenders and other non-institutional sources of credit. The

10.6.1 INSIDE LAG

Inside lag refers to the time lag that is within the purview of the central bank. It is the time gap between the period when the need for taking action arises and the period when the action is taken actually. Inside lag can broadly be divided into two types, vi., I) Recognition Lag and ii) Administrative Lag.

Recognition lag is the time gap between the time when the need for action arises and the need for taking action is recognised by the monetary authorities. The monetary authorities are not so prompt in recognising the changed situations. Some time elapses between the need for action and its recognition by the monetary authorities. For instance, a change in the attitudes of the households regarding consumption may take place during time period t_1 but it may actually be recognised by the central bank during the time period t_2. The entrepreneurs may decide to invest more on Information Technology sector in time t_1 but the potential danger of such a massive investment on a single sector may be recognised by the central bank in time t_2. The length of the recognition lag depends on the efficiency of the central bank in collecting, processing and analysing the required information.

The administrative lag is time gap between the period when the need for taking action is recognised and the time when action is taken actually by the central bank. The monetary authorities do not act so instantaneously that no time is lost between the recognition and the action taken. Since, there are administrative procedures in taking decisions, some time elapses between recognition and taking action. For example, after the central bank recognises the fact that the consumers are over spending on consumer durable goods such as on Video Compact Disc (VCD), the central bank may initiate quantitative methods like raising the rate of interest, open market selling of securities or raising the reserve ratio or may use selective credit control measures. The time that central bank takes administrative decisions to conduct these operations is known as administrative lag. The length of the administrative lag depends upon the efficiency of the administrative set up of the central bank.

10.6.2 INTERMEDIARY LAG

Intermediary lag is the time gap between the period when action is taken by the central bank and the effect of it is felt on the spending decisions. Once policy is changed by the central bank, it will take some time to percolate the changes to the commercial banks. The commercial banks will implement the changes in the liquidity ratio, interest rates, and other decision only some time. Thus the duration of the changes in these variables depends upon the behaviour of the commercial banks and other players in the money market that are involved in the implementation of the decisions of the central bank.

10.6.3 OUTSIDE LAG

Outside lag is the time gap between the changes decision variables affected by the commercial banks and the initial impact of these changes on the target variables. Outside lag can be of two types viz., decision lag and production lag. Decision lag refers to the time period between the changes in interest rates and the resulting and the resulting changes in the spending decisions by the economic units. It should be noted that the economic units viz., producers, businessmen and consumers do not act instantaneously to the changes in the economic policy variables. They take some time to analyse the consequences of changes in the policy variables like interest rate changes and then they take decisions to change their investment and expenditure patterns. This time gap is known as decision lag. Another increase in the ratio of interest. (Note that security prices and rate of interest are inversely related). Unless the banks expect that the rise in the rate of interest will be long-lived and sufficient to compensate the capital loss of the securities, the banks may not go for shifting of their portfolio. Thus if banks shift out of government securities during periods of restrictive monetary policy and move into government securities during the periods of cheap money policy, the effectiveness of monetary policy is seriously undermined.

Thirdly, in recent years there has been mushroom growth of non-banking financial intermediaries such as insurance companies, housing societies, savings and loans associations, chit fund companies etc. These intermediaries also mobilise savings from public and advance loans to the public. These institution that do the same functions as commercial banks do not come under the purview of central bank. The types of loans made and the securities bought by these financial intermediaries undoubtedly affect the allocation of credit especially during inflation.

10.6 TIME LAGS IN MONETARY POLICY

Apart from the built-in-limitations of monetary policy, and the limitations inherent in each individual tool, the success of monetary policy also depends upon the absence of time lags in various stages of implementation of monetary policy. This is because effects of monetary policy do not work themselves instantaneously. There are time lags in the working of monetary policy at its various of implementation. No time should be lost between the changed situation requiring action and recognition of such need for taking action. Similarly no time should be lost between recognition and taking action. The lags in monetary policy can broadly be divided into three categories. i) Inside Lags, ii) Intermediate Lags and iii) Outside Lags. These are detailed in Diagram 10.2.

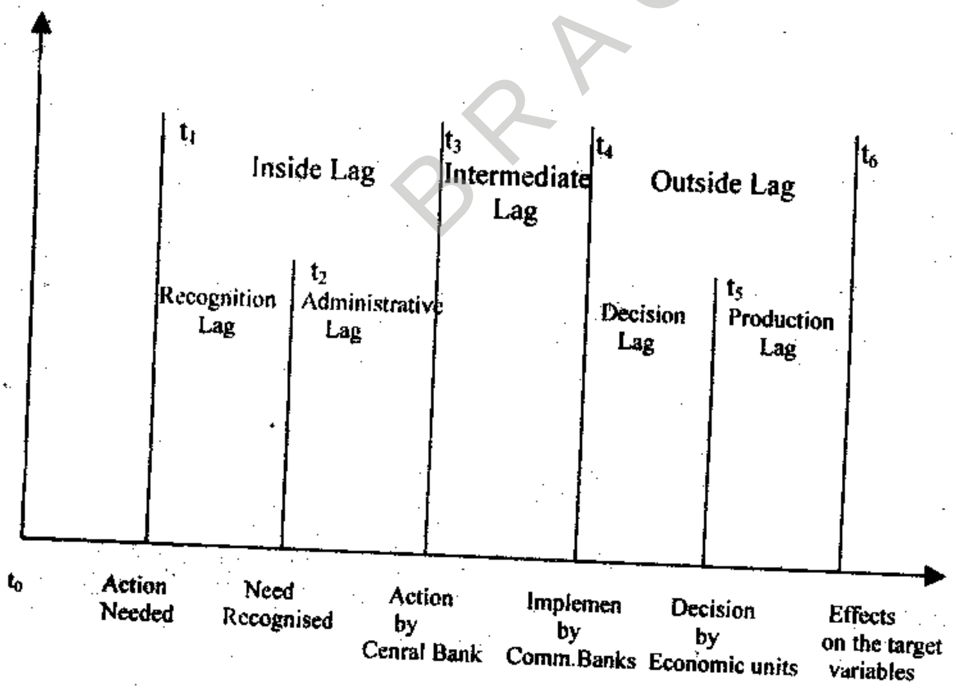

Diagram 10.2 Lags in Monetary Policy

interest rates charged by moneylenders and other non-institutional agencies are very high. They do not come under the purview of central bank. The nature of unemployment in underdeveloped countries is not cyclical as in the case of developed countries. There is chronic unemployment, underemployment and disguised unemployment, which are due to unexplored natural and human resources. Low development of natural resources, low savings, low investment, low employment, low production, low income and low development of natural resources move along a vicious circle. Under these peculiar conditions, the instruments of monetary policy cannot be applied into the underdeveloped countries. The tools of monetary policy have to be refined and sharpened to suit these peculiar conditions and the needs of the underdeveloped countries. A Monetary Policy has to perform the following functions in underdeveloped countries; we will study them one by one:

10.9.1 INTEREST RATE STRUCTURE

In underdeveloped countries, the interest rate structure is amenable for revisions only in the upward direction to encourage savings. But in view of a large public debt that has to be raised in poor countries for boosting economic development, there is a need to revise the interest rates for public debt in downward direction also. Hence, the policy of adopting a single rate of interest for the entire economy is not suitable. There is a need to have a structure of interest rates, some moving upward direction, some remaining constant and some of moving in downward direction.

10.9.2 EQUILIBRIUM BETWEEN DEMAND AND SUPPLY OF MONEY

In developing economies, the demand for money is bound to go up on account of several reasons. Firstly, there would be increased investment expenditure. Secondly, non-monetised sectors get monetised during the process of economic development requiring more money. Thirdly, money is also demanded for precautionary and speculative motives in addition to the usual transaction motive.

In this context, the monetary policy has to ensure equality between demand for money for all these purposes and the supply of money. The aim of the monetary policy should be to control the use of money and credit for speculative purposes through suitable instruments of monetary policy such as physical controls. Otherwise, there will be inflationary tendencies in the economy, which may stifle the growth instead of promoting it.

10.9.3 INFLUENCES THE PATTERN OF INVESTMENT AND PRODUCTION

In underdeveloped countries monetary policy has to play an important role in influencing the pattern of investment and production. The monetary policy should be devised in such a way that banks provide medium-term and long-term credit to productive activities. Selective instruments of credit control can profitably be employed to prohibit the flow of credit to unproductive and speculative activities. This helps the pattern of investment and production to move on the desired lines so as to promote economic growth in the country.

10.9.4 DEVELOPMENT OF FINANCIAL INSTITUTIONS

One of the important limitations in the working of monetary policy in underdeveloped countries is low development of financial institutions. Financial institutions play an important role in the mobilisation of latent sources of savings from urban, semi-urban and rural areas and channeling them to productive activities. This is a pre-requiring for achieving economic growth. Moreover, the few financial institutions available in these countries cater to the credit needs of only industry, business, foreign trade and large estates. In this context, the monetary policy should be devised to foster the development of financial institutions in rural and semi urban areas by providing suitable incentives. So that they can cater to the credit needs of these neglected sectors.

10.9.5 CONTROL OF SPECULATIVE ACTIVITIES

Speculative activities are more common in underdeveloped countries in view of frequent shortages of essential commodities and food grains. Unscrupulous traders take advantage of the shortages in these items by involving in hoarding and speculative activities with the help of bank credit. In this context selective credit controls of the monetary policy can be used to control speculative activities in sensitive commodities so that the dangers of inflation can be averted. As noted already price stability is an important prerequisite for economic growth.

10.9.6 ENSURING SECTORAL IMBALANCES

It was noted already that a mild inflation in industrial sector and stable prices of foodstuffs and raw materials would be an ideal environment for promoting economic growth. The monetary policy has an important role to play in ensuring this type of imbalance through its weapons of selective credit control.

10.9.7 BALANCE OF PAYMENTS EQUILIBRIUM

Lastly, equilibrium in balance of payments is another important factor for promoting economic growth. Monetary policy influences both current and capital accounts of the balance of payments through its traditional weapons such as bank rate. Bank rate is more powerful in clearing both deficit and surplus in the balance of payments and in ensuring equilibrium. Thus monetary policy if used judiciously, can play an important role even in underdeveloped countries and to achieve rapid economic growth in these countries.

10.10 SUMMARY

Monetary policy is one of the macroeconomic policies implemented by the central bank of a country. It refers to the regulation of total volume and cost of money and credit in the economy so as to achieve the general economic objectives of a country such as exchange rate stability, price stability, full employment and economic growth. Monetary policy was all-powerful during the 19th century. The classical economists advocated the use of monetary policy to regulate the economic activities in the economy. But it miserably failed during the Great Depression of 1930s. During this period even very low rates of interest could not revive the economic activities and could not lift the economy from out of depression. Hence, fiscal policy came to the forefront. During 1970s when inflation was a overriding economic problem in many countries of the world, monetary policy reemerged with more vigour and vitality. The instruments of monetary policy are the same as the instruments of credit control by the central bank of a country. They are bank rate, open market operations, variable reserve ratios and selective credit control measures such as moral suasion, margin requirement, and regulation of consumer credit, credit rationing, publicity and direct action. The objectives of monetary policy varied over a period of time. Nevertheless, exchange rate stability, equilibrium in balance of payments, price stability, full-employment and economic growth continue to be the important objectives of monetary policies in various countries. Though the monetary policy is less powerful in relation to fiscal policy in reviving the economy during depression, it is more powerful tool during inflation and to achieve equilibrium in balance of payments. There are three types of time lags in the working of monetary policy in its various stages of operation. These time lags known as inside lag, intermediate-lag and outside lag greatly limit the working of monetary policy. Besides, there are non-banking financial intermediaries that greatly affect the working of monetary policy. Monetary policy promotes economic growth by equating money demand to total output in the economy and by creating congenial atmosphere for promotion of savings and investments in the economy. Since in underdeveloped countries, money and credit markets as well as instruments of credit are not well developed the monetary policy may not be fully effective in these countries. But the central bank of a country takes measures to promote the necessary infrastructure for the successful working of the monetary policy.

10.11 CHECK YOUR PROGRES

I. Answer the following questions in about 4 or 5 lines each.

1. Give the generally accepted definition of monetary policy.
2. Are the instruments of monetary policy same as that of credit control?
3. What is neutrality of money?
4. How does monetary policy ensure stability in exchange rates?
5. What do you mean by price stability?
6. Why monetary policy is more powerful than fiscal policy to achieve equilibrium in balance of payments?
7. What are the trade-cycles?
8. What do you mean by cheap money policy?
9. What do you mean by dear money policy?
10. Why monetary policy is not effective during depression?
11. What is recognition lag?
12. What is decision lag?
13. What is intermediary lag?
14. Distinguish between inside lag and outside lag.
15. What are the non-bank financial intermediaries?
16. State the similarities and differences between banks and NFI.
17. Why does monetary policy fail in the presence of NFI?
18. State the two ways by which monetary policy promotes economic growth.
19. Why does the demand for money rise in a developing economy?
20. State the functions of monetary policy in underdeveloped economies.
21. What are the conditions that make monetary policy ineffective in underdeveloped countries?

10.12 GLOSSARY

Instruments of Monetary Policy : The two broad methods of monetary policy viz., Quantitative and Qualitative methods by which a central bank regulates the cost and availability of money and credit in an economy are known as the instruments of monetary policy.

Neutrality of Money : A situation in which money performing passive functions such as a medium of exchange and a unit of account but having no dynamic functions which affect the real variables in the economy is known as Neutrality of Money.

Exchange Rate Stability : A situation in which rate of exchange between two currencies remaining constant is known as exchange rate stability.

Equilibrium in Balance of Payments: Equilibrium in balance of payments exists when the total outflow of foreign exchange from a country is equal to the total inflow of foreign exchange into the country on account of various economic activities between the reporting country and the rest of the world.

Price Stability : Price stability is a situation where the rate of increase and rate of decrease in price levels in an economy is equal to zero.

Full Employment : Full employment exits in a country when all those who are able and willing to work find gainful employment.

Economic Growth : Sustained-rise in real GNP per capita over a long period of time is known as economic growth.

Anti-cyclical Monetary Policy : Monetary policy, which is used to counteract both inflation and depression (unemployment), are termed as anti-cyclical monetary policy.

Revival : Revival is a phase of business cycle when the price and cost relations that are so badly distorted during depression begin to restore gradually.

Expansion : Expansion is a state of affairs in which the real income consumed and the real income produced and the levels of employment are rising and that there are no idle or unemployed resources.

Recession	:	Recession is a phase of business cycle that begins to appear at the end of the expansion phase due to distortions and lags in price and cost structures. The economic variables begin to fall during this phase of business cycle.
Depression	:	Depression is a period of business cycle characterized by low prices, low wages and high unemployment and business pessimism.
Peak	:	Peak is a phase of business cycle characterized by high business activity, high prices, high wages, low unemployment and bright business prospects.
Inside Lag	:	Inside lag is the time gap between the period when the need for taking action arises and the period when the action is taken actually on a changed economic situation in an economy.
Outside Lag	:	Outside lag is the time gap between the changes in decision variables effected by the commercial banks and the initial impact of these changes on the target variables.
Intermediate Lag	:	Intermediary lag is the time gap between the period when action is taken by the central bank and the action is implemented by the implementing agencies.
Non-bank Financial Intermediaries	:	Financial institutions such as insurance companies, chit funds, building companies etc., which do not come under the purview of central bank but creates claims that are close substitutes to bank money, are known as non-banking financial intermediaries.
Structure of Interest Rates	:	Structure of interest rates refers to a system of interest rates where there are more than one rate of interest depending upon the purpose of economic activity.

10.13 MODEL EXAMINATION QUESTIONS

I. Answer the following questions in about 30 lines each

1. Critically examine the objectives of monetary policy.
2. Evaluate role of monetary policy during inflation and depression.
3. Assess the instruments of monetary policy in promoting economic growth.
4. Evaluate how the lags in the monetary policy affect the efficacy of monetary policy.
5. Examine the role of monetary policy in underdeveloped countries.

II. Answer the following questions in about 15 lines each

1. Define monetary policy.
2. What are the instruments of monetary policy?
3. State the objectives of monetary policy.
4. What are the instruments of an anti-cyclical monetary policy?
5. What are the lags in the monetary policy?

10.14 SUGGESTED BOOKS

1. R.S. Sayers : **Modern Banking**
2. K.P.M. Sundaram : **Money, Banking Trade and Finance**
3. T.T.Sethi : **Monetary Economics**
4. S.K.Basu : **Current Banking Theory and Practice**
5. Diulio, Eugene A. : **The Theory and Problems of Money and Banking** (Schaum's Outline)

- Dr. D. Krishna Murthy

BLOCK – IV : PUBLIC REVENUE -TAXATION

This block introduces the nature and subject matter of public finances, you will also know the main divisions of public finances. A companison between Public Finance and Private Finance is dealth with in the first unit. This block does not only explain about the scope of public finance and how the state plays the role in the different economic systems and the Modern economy but also explains the basis for Public Finance Operation through the Principles of Maximum Social Advantage.

This block contains the following 2 units.

Unit – 11: Nature and Scope of Public Finance Role of the State
Unit – 12: Principles of Maximum Social Advantage

UNIT - 11 : NATURE AND SCOPE OF PUBLIC FINANCE

Contents

11.0 OBJECTIVES

This unit explains the nature of public finance, comparision between the public finance and private finance and also major divisions of public finance.

After reading the unit, you will be able to

- describe the scope of Government activity;
- explain the subject matter of public finance;
- define the public finance;
- compare the public finance with private finance;
- list the branches of public finance.

11.1 INTRODUCTION

Public finance is an important branch of economics. It deals with the study of various financial activities of the state such as public revenue, public expenditure, public debt, etc., of the state. In this unit, let us try to introduce the subject matter of Public Finance in this modern world, the role of the State has enormously increased, there by increasing the nature of Public finance. The scope of public finance has widened due to the momentum given to the idea of welfare state. Different definition given to the Public Finance are explained in this unit. Later at the end, we try to divide the subject matter of Public Finance into many branches such as public revenue, public expenditure, public debt, etc.,

11.2 THE SCOPE OF GOVERNMENT ACTIVITY

Public finance is an important branch of economics and deals with the study of the various financial activities of the State such as public revenue, public expenditure, public debt. Financial administration etc., of the State. Before we understand the nature of Public finance, it is necessary to find out the scope of government acitivity in an economy. In olden days. the classical economists believed that the functions of State should be confined to protection of people from external aggression and from internal disorders. Such functions were known as 'Police State' functions. In course of item, epecially after the Second World War, the functions of State have enormously increased encompassing production and distribution of certain key and strategic commodities, providing social justice to the people and rational allocation of the nation's scarce resources. In a capitalists economy, the market mechanism is supposed to guide all the economic activities of consumers and producers. But experience of many countries in the world has amply revealed that the economic operations, if left completely to market mechanism, may result in the growth of private economic power which will be detrimental to the public interest. Disparities in income and wealth between the rich and the poor might increase. Resources may be wasted. They may be either under-utilised or un-utilised or more often mis-utilised. Economies run completely on market mechanism are prone to serious fluctuations due to booms and depressions. Therefore, the need to expand government activities has been very much felt in order to overcome some of the shortcomings of market mechanism. Among the countries in the world - apart from the capitalist economics - we have the other group belonging to socialist economies, where the market mechanism is assigned a very marginal role. The public sector dominates in tell major activities of production and distribution in such economies. Between these two economic systems, there are the mixed economies like the one we have for India. The activities of both private and public sectors have considerable impact on the functioning of such economies.

Now a pertinent question is what should be the scope of government activity in an economy? This question seems more relevant to captilist and mixed economies rather than to the socialist economies. The socialist approach to the scope of government holds the view that every economic activity shall be performed by the State only. The problems of Public finance in socialist countries widely differ from those in capitalist or mixed economies. As the means of production are owned by the State. The government determines the economy's price and production policies.

Price polices of the government play an important role in Public finance in the socialistic countries. Resources to finance various activities of the government are raised mostly by way of mark ups on costs rather than resorting to additional taxation in such countries. Now, how about government activity in capitalist and mixed economies? In these economies we are guided mostly by two considerations namely.

a) government action is needed only when the private sector can not perform its functions satisfactorily, and
b) a more active role of government to control, supervise and regulate the activities of private sector in order to achieve certain specific objectives in the egalitarian point of view

11.3 PUBLIC VS. PRIVATE GOODS - THE EXCLUSION PRINCIPLE

To understand more fully the first consideration, w shall have to know the distinction between what are called Public and Private goods. Better an example is taken to elaborate this point. The life and property of all the people are protected by National Security, provided by the State, the services of which cannot be priced by market mechanism. Every person in the country whether he wants it or not is given protection by the State. Such a service (or good) is know as a '*collective good*' It is enjoyed by all people in the country. So, it is also called '*public good*' On the other hand, we have Private goods like bread, cloth, fan etc., which are priced in the market. One cannot have such a good without paying its market price. The person who desires to get it will have to pay its price. If he does not pay, he will not get it. So, he is excluded from those who would desire to have the good. In other words, market mechanism excludes those who we not willing to purchase the good by paying its price. This characteristics of the good is attributed to what is called the '*exclusion principle*". Goods which are priced by market mechanism are covered by the exclusion principle. If goods are not priced but commonly enjoyed by all people irrespective of their willingness to have them or not do not come under the exclusion principle'. It is not possible to exclude any person from the benefit of a collective good, provide by the government, but not by the private sector. In this context, it may be stated that R.A.Musgrave supports government activity for the fulfilment of '*merit wants*' For instance, all people may need educational and health services etc., which could be provided even by the private sector but in that case, only on the basis of '*exclusion principle*'. Those who will not pay for the services cannot have it. So, in the interests of society at large, it is desirable that government shall provide such services to the public.

11.3.1 IMPORTANT CHARACTERISTICS OF MERIT WANTS

i) Interferance with consumer preference
ii) Rival in consumption
iii) Subject to exclusion

Both social wants and merit wants are public wants and fall within the scope of normative theory of Public finance. The satisfaction of social wants and merit wants forms part of the normative theory of Public Finance.

11.3.2 OTHER DISTINCTIONS BETWEEN PUBLIC GOODS AND PRIVATE GOODS

a) Basis of Marginal Cost

Also, viewed from the point of marginal cost, government activity can be supported. The marginal cost of public good (unlike a private good) may be sometimes zero or nearer to zero which means that there will not be any appreciable cost-increase to provide the facility to an additional person. It should, however, be remembered that it may not always be possible even for the government to apply a public good to an unlimited extent without increase in its marginal cost.

·) Basis of Externalities

The scope of government activity is supported on some other grounds also. In the production or use of a good, there may be flow of certain effects to others which are called '*Externalities*". The effects on account of externalities may result in an economic gain or loss to others. Besides they may involve social costs or benefits also. For instance a paper mill in a locality may pollute a river, which is a cost on the society for which the mill may not be paying anything extra towards penality. Being a unit in the private sector, the social cost is not considered in its profit maximising calculations. So, in such of those activities where the social loss or gain are to be considered, it is more desirable that they shall be under the government control instead of leaving them to private enterprise.

C) Basis of Market Mechanism

In studies making comparisons between private and public (or social) goods, it is generally recognised that in the case of the former, the market mechanism works effectively, while in the case of the latter, it is associated with the failure of market mechanism. For a private good market mechanism works effectively because of (i) application of exclusion '*Principle*' and (ii) consumption of such a good being `*rival*' so that exclusion may be applied with efficiency loss. It should' be noted that where market mechanism fails, we have a strong argument if for social or public goods. And market mechanism fails whenever exclusion is not applicable or if there is absence of competition or both. As long as there is rival consumption, we can say that the good is efficiently used. If consumption becomes '*non-rival*', them is no point in applying the exclusion principle. Goods of which consumption is non-rival are referred to as "*social goods*".

d) Business of Risk

Government activity may be supported on still another count. Private enterprise cannot shoulder certain types of risks. For instance, in areas where sophisticated technology and heavy investment are involved, it is not possible for the private sector to undertake production and supply of goods.

11.4 INTERRELATIONSHIP BETWEEN VARIOUS ECONOMIC ACTIVITIES

11.4.1 UNILATERAL AND BILATEAL FLOWS

Thus, from the foregoing discussion we very much realise the need for government intervention in the economic activities of the people. We way now deal with the interrelationship between various economic activities performed by the government and the private sector. A.R Prest classified all the economic activities into two categories namely (i) unilaeralt flows and (ii) bilateral flows. If government purchase goods and services sold by the private sector or via market mechanism, it comes under a *bilateral flow*. This involves movement of goods and services from the private sector to the public sector and at the same time there is a corresponding movement of funds from the public sector to the private Sector. Price and money are both involved in this kind of transaction. On the other hand, there may be flows unilateral where money only may be involved but not price. In other words the transaction may not have any direct association with the market mechanism. Items like old age pensions, ex-gratia payments made by the government do belong to this kind of transaction. Such payments are generally called. '*Transfer Payments*' which are not linked to the market or price mechanism.

11.4 POSITIVE AND NEGATIVE TRANSFERS

Again, We may distinguish between *positive transfers* when the money the flows government to private individuals just like the old age pensions etc., and negative transfers when private individuals pay taxes to the government. For instance, personal income tax may be paid by private individuals to the government without getting any direct return of benefit. This involves a negative transfer payment. In government transactions, we hue mother term called What is the distinction between '*transfer payments*' *and* '*subsidies*'? If subsidy is granted by government in respect of a commodity, it results in the reduction of market price by the amount of the subsidy. Consequently, the indirect tax revenue to the government from that commodity proportionately falls. So, subsidies have the effect of negative indirect taxes. In other words while we can understand that transfer payments like the old pensions could be considered as negative direct tax. Subsidies could be thought of as a negative indirect tax. Transfer payments would increase the income of the people directly while subsidies would reduce the prices of goods in the market. The unilateral and bilateral flows, so important in the operations of public finance, would change the pattern of resource allocation in the economy in the manner desired by the government. These flows are affected whenever there are changes either in the tax structure or in the public expenditure or both.

So questions relevant to understand the operations of public finance in a State are the following.

a) How far the unilteral and bilateral flows i.e., the operations of Public finance are capable of making allocation of resources efficient?

b) How far the tax expenditure and debt policies of the government are successful in attaining price stability and full employment?

c) To what extent the operations of Public finance could influence the distribution of income among different sections of the society?

11.5 DEFINITIONS OF PUBLIC FINANCE

Different economists have defined the subject matter of Public Finance differently. We may deal here only a few of them. It may be stated that the definition given to the subject of public finance has been changing, following the developments in Sate activities and the corresponding economic philosophy. We find from the writing of the Classical economists that the role of government should be kept to the minimum level. So, J.B. Say says, "that the very best of all plans of finance is to spend little and the best of all taxes is that which is least in amount". This view was on the basis of the old economic philosophy of '*Laissez faire*' advocated at that time.

Carl C Plehm says, "Public finance has come, by accepted usage to be confined to a study of funds raised by governments to meet the costs of government. It was considered that Public finance dealt mostly with the operations of government treasury and how they would interfere with the working of the private sector of the economy".

According to Bastable 'for all States - however-whether crude or highly developed - some provisions of the kind are necessary and therefore, the supply and application of State resources constitute the subject matter of a study which is best entitled in English 'Public Finance'. It is clear from this definition that Bastable emphasises State's intervention to supply certain kind of goods to the people. According to Mrs. U.K. Hicks, there is a fundamental difference between private and public activities. She believes that public activities are aimed at providing goods or services, not determined by the direct wishes of consumers. Public finance is the study exclusively concerned with such activities. It is clear from this definition that Public finance is related to public activities which are not governed by market mechanism.

According to Dalton "Public finance is concerned with the income and expenditure of Public authorities and with the adjustment of the one to the other"., He believes that the subject of Public finance lies on the borderline between economics and politics. It can be seen from this definition that Dalton was more concerned with the adjustment of government budget rather than how it influences public policy.

But in modern days, the idea of welfare state has gained momentum. Consequently, *the scope of public finance* has also widened. One would expect that modern governments should be capable of reducing unemployment; providing distributional justice and of fostering economic growth. This is the new approach to the scope of Public finance. Economists like Musgrave and Buchanan have opined that the basic problem of Public finance are not 'issues of finance' but rather those relating to the economic policy that arise in the operation of public budget. So, how taxes and public expenditure would influence resource allocation, productivity, price levels, distribution of income and wealth among different sections of the community and administrative efficiency are the most important aspects of Public finance. Such a study is also known as the national income or employment approach to Public finance. As already stated earlier, in olden days it was believed that the economy of a country would function more efficiently only if there was no government intervention. Such a view was supported on the basis of Say's Law of the market. But after the great depression and more so after the publication of the *General Theory* of J.M. Keynes, Public finance assumed a functional character instead of having 'balanced budgets' most of the countries in the world shared interest to adopt 'unbalanced budget' does not always mean that expenditure exceeds income. It could even mean that income might exceed expenditure. An unbalanced budget is adopted as a corrective to the prevailing problems at the time. Even in India also, we find unbalanced budgets being presented in almost all the recent years. In a federal set up, Public finance looks into the financial problems and policies of Central, State and local level governments.

11.6 COMPARISON BETWEEN PUBLIC AND PRIVATE FINANCES

11.6.1 ADJUSTMENT BETWEEN INCOME AND EXPENDITURE

Firstly as Dalton puts it 'while an individual's income determines the amount of his possible expenditure, a Public authority's expenditure determines the amount of its necessary income.' To put it simply, we can say that an individual adjusts expenditure to income while a public authority adjusts income to expenditure. This difference between public and private finances has however been subjected to much debate. Often it has been argued that it is not always possible for an individual to adjust expenditure to his income. For example, if he becomes responsible for more number of dependants, he may decide to increase his income by working more hours and sacrificing leisure. On the other hand, when his children have become self-supporting, his expenditure may likely follow a result of which, he may prefer to work less and take more leisure. Even for a public authority also, it may not always be possible to plan expenditure first and raise resources to match the same. Excessive taxation and borrowing will have certain adverse effects on saving and investment in the economy. Also, in developing economies, raising resources by the government is a difficult task most of the people are poor and their taxable capacity is less. While it may not be possible to get large sums by way of internal borrowing, excessive external borrowing may lead to dangerous consequences at a later time. Even limited deficit financing may have serious repercussions like inflation etc., not at all conducive for acclerate economic development. Taking all these points into consideration, we may say that even for a public authority or government it may become necessary to adjust expenditure to its income depending upon the situation at the time. Nevertheless, for making 'deliberate changes in its income and expenditure, a public authority is generally in a much better position than an individual. Hence, there is difference between public and private finances in this aspect.

11.6.2 MARKET/BUDGET PRINCIPLE

Secondly, it is often stated that private finances are governed by the market principle while Public finances follow the budget principle. The essence of market principle is based on economic rationality, in that profit considerations are given importance. But in the case of budget principle, the allocations of public expenditure as also of raising public revenue etc., are not, strictly speaking, made keeping in view profit expectations. The decisions made by public authority are reached though political and administrative procedures giving importance to the welfare of the society.

Here, again, it has been argued by some economists that certain public sector units have to run on commercial lines otherwise they would not be viable. Even then, the broad consideration of the financial operations of a public authority is to achieve common social objectives.

11.6.3 INTEREST OF THE SOCIETY/INDIVIDUAL

Thirdly, the operations of Public finances would consider the interests of the economy as a whole. This makes the State to consider not only the short run but long run problems also. Some of the investments made by the State to build up economic and social overheads may not have immediate economic return but they we justified keeping in view the long run benefits. For example-large amounts spent on afforestation, soil conservation, education, public health etc., do not have immediate return but they are important in the long run point of view of the community. In the case of an individual, short run benefits more important than those in the long run. Dalton rightly states, in so far as future conditions can be reasonably foreseen, statesmen should sometimes aim at making a more generous provision for the future than would be made by private individuals left to themselves'.

11.6.4 INTERNAL AND EXTERNAL BORROWINGS

Fourthly, in the case of an individual, it is not possible to resort to internal borrowing but for the State both internal as well as external borrowing is quite possible. It is not possible for an individual to borrow internally. All his borrowings are external. It is possible for the State to borrow from the people living in the same country. This is known as 'internal borrowing. Whenever it is necessary, a public authority can float loans and borrow money internally. Also, the rate of interest on the borrowings of the State is generally lesser than the rate at which the borrowings of an individual we charged. This is obvious that the State has more credit worthiness than an individual. The State can draw up the facilities provided by the Central

Bank of the country as well as other financial institutions more liberally to raise loans internally from the public.

11.6.5 CREATION OF LEGAL TENDER

Fifthly, an important difference between public and private finances is that the State has the exclusive power to create the legal tender, which an individual or any economic unit held by private sector does not have. When money was in metallic form, there was some restriction on the part of the State to create money. But with the emergence of paper currency, there is practically no restriction for the creation of legal tender by the government. Whenever government wants more revenue, it could resort to creation of money. But such an act by the government may have serious repercussions. When government spending is increased on these lines, it means a large volume of goods and services being purchased (demanded) by the government in the market as a result of which the rest of the economy may be left with lesser supply of goods and more money. This gives raise to a plethora of questions: (i) How the goods and services purchased by the government are utilised? Have they been used for public distribution system or for capital formation or merely for social consumption? (ii) Whether the increased government demand for goods and services could succeed in bringing out price stability in the market? (iii) What are the short run as well as long run effects of financing public expenditure by creation of money? If one considers all these aspects, it becomes clear that even for a Public authority, it is not always desirable to expand paper currency in. order to meet its public expenditure. Even then, the exclusive powers that the State has in the matter of creating legal tender still remains as a fundamental difference between Public and Private Finances

11.6.6 PUBLIC WELFARE OR INDIVIDUAL MARGINAL UTILOITY

Sixthly, it is generally stated that an individual so distributes his expenditure on various commodities and services that the marginal utility of all them expenditures are equal by which the total utility becomes maximum. This is nothing but 'Law of equi-marginal utility. In respect of estimating the marginal utility of any form public expenditure the State takes an objective standard of public welfare or social advantage but for an individual, it is the subjective standard of utility linked with an objective standard of price. There are, however, some constraints placed on different items of State's spending, by which it may not be possible for equating marginal utility in terms of Public welfare. Demand from rival spending departments, pressures from elected or organised persons etc., make the State to deviate from the rule of equating marginal utilities in practice.

11.6.7 METHODS OF RAISING REVENUE

Seventhly, some economists pointed out that government has the coercive authority to raise revenue. Taxes imposed by the government cannot be refused by the people. They are liable to pay them. Private individuals and business houses have no such powers so as to force others to pay them money. It may, however, be argued that a person can void payment of tax by opting to some alternatives open to him. For instance, commodity taxes can be avoided by not purchasing them. Similarly income tax can be avoided by reducing one's earnings'. Wealth duties can be avoided by avoiding accumulation of property etc. But in practice, it may not be possible to opt to these alternatives. Similarly, in the case of business houses one may argue that sometimes it may be possible to force buyers to pay higher prices for the commodities (or services) in the production of which they have monopoly power. Nevertheless, a public authority has more coercive power than an individual or private business houses.

11.6.8 SECRECY AND PUBLICITY

Lastly, an important difference between Public and Private finances is that which relates to secrecy and publicity. Private finance is not exposed to others. It is shrouded in secrecy. One may not like others to know his financial affairs. In the case of a public authority like government the financial transactions are fully exposed to all. Government budgets are open for public criticism. However, this yeim of government finances cannot always be correct. Expenditure incurred by the government for its defence requirements is not fully exposed to the public. Even then, compared to an individual, the details of State finance can be known by anybody whosoever is interested.

11.6.9 ALLOCATION OF EXISTING RESOURCES

So, we have broadly learnt the differences between public and private finance. Now our task is to know how the private finance operations differ from that of public finance operations in respect of allocation of existing re-sources among different users. For the sake of simplicity, we may assume a give supply of all productive resources in the economy. In the private sector, the concept of perfect competition is given very much importance for efficient distribution of resources among end – use For instance, ideal cost put is supposed to have been attained respect to any one single firm when marginal revenue from sales equals the marginal cost of production. This implies that the marginal cost of any one factor' is equal to the value of the marginal net product of that factor. The allocation of resources by the operation of private finance does not take into consideration the social costs and benefits involved in the process of production or consumption of the goods. In words, the equality of relative marginal the private products to relative factor prices will not give us an operation take into consideration the social costs and benefits so that the resources are optimally used.

In the case of private finance operations, resources are allocated on the basis of their relative prices. For example, a private enterpreneur charges the goods and services according to their consumption. The benefits received by the consumers, are measurable. But in the case of certain public finance operations, it is impossible to allocate the resources on the basis of price mechanism. It is not possible to say how much benefit any one individual derives from defence expenditure. Similarly, it may be undesirable to charge people fully for the amount of education they receive. It the allocation of resources is made according to private costs and benefits, it would be more satisfactory to rely on prices (or charges) rather than taxes. But where social costs and benefits are involved, allocation of resources through public finance operations is made by changing the existing tax or public expenditure system. From this, it follows that the main source of income to the private sector is derived from prices on the basis of consumer demand and cost of production. But for public finance operations, the main source of income is normally derived from taxes.

11.6.10 TRANSFERS AND SUBSIDIES

Another distinction which may be found between public and private finance operation's with respect to transfers and subsidies. This relates to the distribution of expenditures in the Public sector. Transfers and subsidies are mean to divert resources from one use to the other Private expenditure does not contain items like. Transfer payments and subsidies.,

11.6.11 REGULATION AND SUPERVISION

Still another point in this context is that in a mixed economy, the private finance operations are regulated by the government. In other words, the public finance operations always aim at regulating the various economic activities in order to attain maximum welfare in the economy and in doing so, the economic activities carried by the private sector have to be directly or indirectly supervised. In capitalist countries like UK, USA etc., where market mechanism assumes prominence, the private finance operations are controlled to a less extent by the government.

11.7 MAIN DIVISIONS OF PUBLIC FINANCE

The subject matter of Public finance can be broadly divided into the following main branches:

11.7.1 PUBLIC REVENUE

This branch deals with the various methods by which government can raise revenue. Broadly public revenue consists of (a) Tax Revenue, (b) Non-tax Revenue. Again, tax revenue can be divided into two kinds viz, Direct, Tax Revenue and Indirect Tax Revenue. Under non-tax Revenue, there are a variety of items which among other thing include fees, fines etc. In this branch we study the incidence and effects of taxation. When taxes are imposed there is transfer of purchasing power from people to the government- Therefore taxes would influence production, distribution and employment in the economy. Public revenue can be raised even by borrowing from the people internally or externally. It is known as public debt which can be separately studied.

11.7.2 PUBLIC EXPENDITURE

In this branch we study the pattern and quantity of the expenditure incurred by the government. Public expenditure would influence the supply and demand of certain goods or services. It would also influence the functioning of private sector in the economy. Public expenditrue aims at not only increasing economic growth but also to achieve stabilisation and maximum social welfare in the country. In recent times public expenditure has been increasing due to many reasons. The principles governing public expenditure and their impact on the economy is also studied in this branch.

11.7.3 PUBLIC DEBT

Public debt refers to the borrowing of the government from the people internally and externally. Therefore strictly speaking public debt forms a part of public revenue. However, modern governments have been borrowing heavily to meet their evergrowing public expenditure, it is worthwhile to study public debt separately to find out its effects on the economy. In this branch we study the different methods adopted by the government to borrow money from others. We also study various methods for the repayment of public debt.

11.7.4 FINANCIAL ADMINISTRATION

In this branch we study the various techniques adopted to account for the transactions relating to the financial activities of the government. In this branch we learn how the budget are prepared, presented to the legislature or Parliament, and implemented. Financial administration deals with the ex-ante and ex-post situation of public revenue as well as public expenditure. It also deals with the auditing procedure, performance budgeting etc.

11.7.5 STABILISATION AND GROWTH

In recent times much importance is given to those aspects of economic policy which help achievement of stabilisation and growth in the economy. For a long time these aspects were not included as a part of the study of Public finance. But, with the increase in the economic activities of the government it has become necessary to know as to what impact would be there on stabilisation and growth. Therefore, this branch also is studied separately.

11.8 SUMMARY

This unit is the integral part of Public finance. We have tried to understand the basic concept of Public Finance. The nature and subject matter of Public Finance is discussed. Some of the definitions given on the public finance is broadly divided into Public Revenue, Public Expenditure, Public debt etc., Some concepts relating to Public Finance are explained. At the end, the similarities and dissimilarities between public finance and private finance and the main division of Public Finance are also discussed.

11.9 CHECK YOUR PROGRESS

I) Answer the following questions in about 4 or 5 each.

1. What is exclusion principle?
2. Define public good.
3. What do you mean by merit wants?
4. What are social goods?
5. What do you mean by unilateral flow?
6. Explain the concept of bilateral flow.
7. Distinguish between positive transfers and negative transfers.

11.10 GLOSSARY

Collective Goods or Public good	:	The life and property of all the people that are protected by the state, the services of which can not be purchased and not priced by market mechanism but every citizen enjoys it whether he/she likes it or. Such goods are called as collective or public goods.
Private Good	:	Any good which is priced by market mechanism and can not be enjoyed without payment, such goods are called as private good.
Merit Wants	:	Certain services like education, health are needed by all the people either provided by the government or private sectors only on the basis of exclusive principle. Such services are known as merit wants.
Externalities	:	In process of production of goods and services, they may be flow of effects to the others which are called as externalities.
Unilateral flow	:	When money or transaction flow from the government to private industries without price mechanism. E.g old age pensions, and ex-gratia payments.

Bilateral flow : Bilateral flow is refered as if govt. purchases the good and service sold by private sector or via market mechanism, it involves the movement of goods and services flow. Private sector is the same time there is a corresponding movement of funds from government to private sectors.

Unilaternal flow : When money or transaction money flow from the government to private individual without price mechanism e.g., old age person and Ex-gratia payment.

1. 11 MODEL EXAMINATIONS QUESTIONS

I. Answer the following questions in about 30 lines each.

1. Explain the nature and scope of Public Finance
2. Define public finance; classify the public finance in various branches.
3. Distinguish between public and private goods.
4. Compare the public finance with private finance

II. Answer the following questions in about 15 lines each

1. Distinguish between unilateral flows and bilateral flows.
2. What are the three important branches of Public finance.
3. Explain the exclusion principle.
4. List the differences between Public finance and Private finance.

11.11 SUGGESTED BOOKS

1. B.P. Thyagi : **Public Finance**
2. H.L Bhatia : **Public Finance**
3. Hugh Dalton : **Principles of Public Finance**
4. Vanish and H.S. Agarwal : **Public Finance**
5. Andley E. Sundaram : **Public Finance**

- Prof. N. Linga Murthy

UNIT – 12 : THE PRINCIPLE OF MAXIMUM SOCIAL ADVANTAGE

Contents

12.0 OBJECTIVIES

This unit aims to explain the basis for public finance operations in a State, that is, through the principle of maximum social advantage.

After reading the unit, you will be able to

- list the assumptions on which the analysis of principle of Maximum social advantage depends;
- explain the principle of maximum social advantage;
- describe the limitations of the principle; and
- analyse the test of the maximum social advantage.

12.1 INTRODUCTION

In the previous unit, we have seen that government intervention has become necessary to regulate the economy. As the activities of the State have enormously increased the public expenditure component of government budgets has also tremendously increased. To meet a large volume of public expenditure, large sums of revenue have to be raised either by additional taxation or by resorting to more quantum of public debt. So raising money by way of taxation or public debt will have the effect of reducing the money with the individuals in the economy. In other words, resources are transferred from being used by private individuals to the government for using the same on different items of the public expenditure. In this process, how the people are affected or benefited matters very much. When government entertains a large public expenditure programme, money will flow from the government to the owners of factors of production. Government may spend money for the creation of productive assets or simply as a transfer of payments in the form of old age pensions etc. Whatever be the "type of government spending, it provides certain benefits to the community. The benefit and costs of the financial transactions of government have to be evaluated carefully keeping in view how they are helpful to regulate the economy.

12.2 THE PRINCIPLE OF MAXIMUM SOCIAL ADVANTAGE

In olden days, when functions of government were kept at minimum, the activities of spending and raising money by the government did not receive much attention. Because of limited functions (known as police state functions) less amount used to be raised by way of taxes and less money used to be spent on public expenditure programme In the words of J.B. Say "the very best of all plans to finance is to spend and the best of all taxes is that which is least in amount". This statement clearly supports the minimum role of government in the economy. It was imagined by early economists including Adam Smith and Ricardo that most of the private expenditure which taxation checked, was productive while all public expenditure which taxes paid for as 'unproductive'. But as Dalton rightly says "this supposed distinction has long been discredited. The only economic test of the productiveness of any expenditure is its productiveness of economic welfare and public expenditure on education and health is often non productive in this sense than private expenditure on luxuries". As modern welfare states have to perform innumerable functions, the argument that public expenditure is unproductive or all taxes are an evil is not valid now. In modern economies, budgetary and debt policies have assumed prominence for regulating the economy. The demand and supply factors for important goods and services are being influenced by the operations of public finance, which in turn influence the National Income of the country. Therefore public finance operations should be so designed as to provide maximum advantage or welfare to the people of the society. The criterion adopted to achieve this objective is known as 'principle of public finance' or 'principle of maximum social advantage'.

12.2.1 ASSUMPTIONS

At the outset, we make the following simplifying assumptions to analyse the principle of maximum social advantage. *Firstly* is assumed that the public revenue of the government consists of only taxes but not the other forms of revenue like gifts, loans, fees, etc. *Secondly*, it is assumed that taxes we subject to increasing marginal sacrifice (marginal social disutility) while public expenditure is subject to diminishing marginal utility (marginal social benefit). By making this assumption, we mean that collection of more and more taxes from the public results in greater marginal social disutility and spending more and more money by the government results in lower marginal social benefit to the people. In other words, while the taxes will drain away resources from the private individuals to the government, public expenditure will be first directed on those items which are most beneficial to the society.

12.2.2 THE PRINCIPLE

Through the operations of public finance, it is possible to make changes in the total purchasing power in the economy. For instance, when the budget shows a deficit, it results in a net increase in the purchasing power and vice-versa. As a result of changes in the purchasing power, the distribution of wealth among different classes may also be affected. So it is very essential result in greater economic welfare to the people, they are justified. If not, they are not justified. To cite the opinion given by Dalton in this context "the best system of Public Finance is, that which secure the maximum social advantage from the operations which it conducts.

On this basis, it may be stated that the social benefit from each additional rupee spent falls while the disutility from each additional. rupee taxed increases. A situation is reached in this process that the marginal benefit from the operations of Public expenditure will be jsut equal to the marginal dissatisfaction (disutility or sacrifice) from out of taxation. At this stage, the society gets maximum advantage from the operations of public finance. It indicates the optimum tax and expenditure activity of the state. This view be depicted by the following diagram:

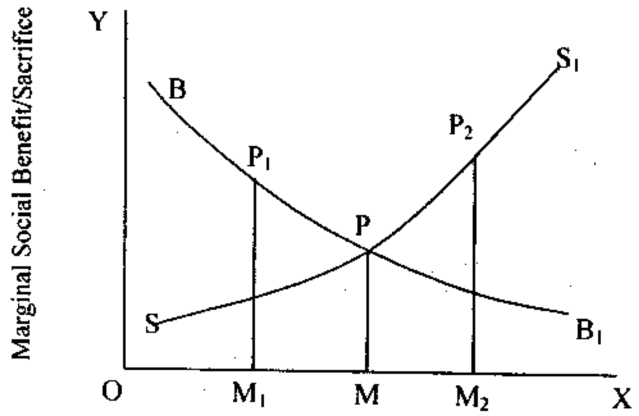

Fig. 12.3 : (Tax Revenue/Public Exdpenditure)

In the diagram, *OX*-axis shows the mount raised by taxes as will as the amount spent by the government towards public, expenditure. *OY* axis shows marginal social benefit from the operations of public expenditure a well a marginal social disutility (i.e. sacrifice) due to payment of taxes to the government. As already analysed more and more taxes involve greater marginal sacrifice. This is represented by the upward doping SS_1, curve in the diagram. Similarly, more and more money spent to wards public expenditure operations diminishes the marginal social benefit This is represented by the downward sloping BB_1 curve. Both the curves intersect each other, when om there amount of money has been raised by taxation and the same is spent by public expenditure operations. At this stage, the society gets maximum advantage from the operations of public finance.

What will happen if the state raises *OM*, units of money and spends the same? The marginal sacrifice or disutility from taxation is less than the marginal benefit enjoyed by the people from the public expenditure operations. this indicates that some more resources car be withdrawn from the private individuals by taxation and spent, If the other hand, the state desires to raise *OM2* units of money by taxation and spends the- same. Obviously, it can be seen from the diagram that the marginal social benefit is less than the **marginal** sacrifice undergone by the people for paying additional taxes. Therefore, when Static **raised** *OM* units of money and spends the same, m optimum situation is reached, in that the marginal' sacrifice from taxation is just equal to the marginal benefit This represents' maximum social advantage' to the community.

The principle of Maximum social advantage not only explains upto what extent the public finance operations should be undertaken but it also explains how public revenue should be raised or public expenditure allocated on different items. We may now deal with these matters.

Public expenditure should be so designed that the marginal social benefit from each item of expenditure should be equal so that the total social benefit becomes maximum. This is in accordance with the principle of equi-marginal utility. If the marginal benefit from one use is greater than the other, the total benefit would not be maximum. The government should increase the expenditure on the first item and reduce the expenditure on the second item. This is depicted in the following diagram:

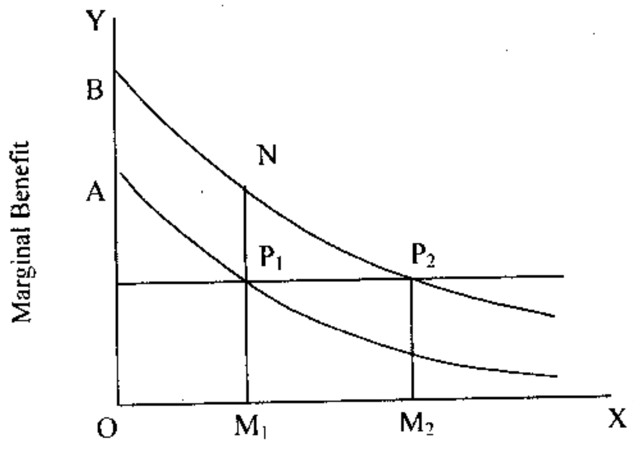

Fig. 12.2 : Public Expenditure (Units of Money)

In the above diagram (Figr 12.2) AA_I shows the diminishing marginal benefit of the expenditure incurred' on item *A*. Similarly BB_I, shows the diminishing marginal benefit relating to item B. The government spends $0M_2$ units of money on item A and OM_I, units of money on item B, so that the marginal benefit from 'A' will be equal to that of 'B'. In such situation, the total benefit to the society, will be maximum. If on the other hand, let us reverse the pattern of spending. What will happen The marginal benefit from *B* will be greater than the marginal benefit from *A*. Earlier, the total utility as shown in the diagram was OM_I, P_I, plus OM_2P_2B. But now the total utility, will be OM_INB plus OM_2DA. thus, the, total utility is decreased by P_IDP_2N. So, in order to attain maximum total utility, it is necessary that the expenditure ought to be so designed that the marginal utility from A becomes equal to the marginal utility from *B*.

In regard to taxation also, the principle of maximum social advantage requires that taxes on different items should be so imposed that the marginal sacrifice on each items is more or less equal. In such a case, the total sacrifice would be maximum. This can also be depicted by a diagram:

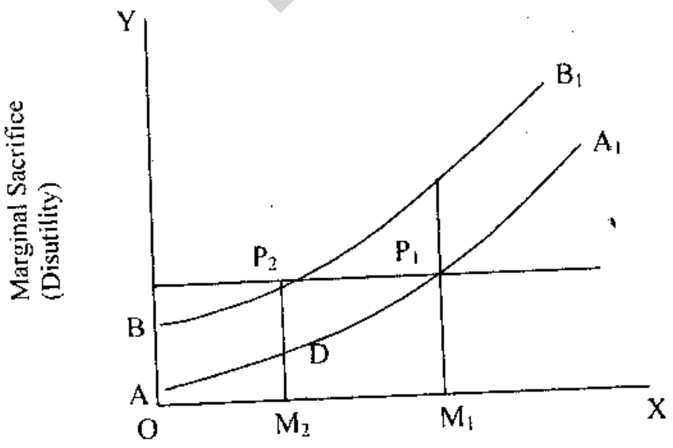

Fig. 12.3 : Tax Revenue (Units of Money)

In the above diagram (Fig.12.3) taxes are measured along *OX* axis. The marginal sacrifice is shown along *OY* axis. The government ought to raise OM_I, from item *A* and OM_2 from item *B*, so that the total sacrifice undergone by the community would be the least. The total sacrifice as shown in the diagram is equal to OM_1P_1A (from A item) plus OM_2P_2B (from B item). If supposing the government reverses the pattern of raising taxes from A and B. What will happen? The total sacrifice will be equal to OM_1KP (from B) plus OM_2DA (from A). Obviously, the total sacrifice has increased by DP_1KP_2.

12.2.4 LIMITATIONS

The principle of maximum social advantage suffers from many limitations.

Firstly, it may not be possible for us to measure the benefits or the sacrifices from the operations of public finance as some of them involve subjective elements. Even agreeing that State should be there to protect the people from both external aggression and internal disorders, the benefits to the society are more than the cost of maintaining the state. Obviously, it is not possible for the private individuals to carry on any productive, activity without the protection given by the State. So, it is not always appropriate to compare the benefits with that of the sacrifices arising out of various public finance operation.

Secondly, principle of maximum social advantage assumes that every tax imposes a burden on the society and that every public expenditure provides benefit to it. But, we cannot generalise the view. For example, a tax, on the consumption of narcotics and other harmful drugs cannot be considered burdensome to the society. Similarly expenditure on unnecessaxy wars is an obvious evil.

Thridly, it may not always be possible to evaluate the benefit of every public expenditure in the short period. The benefits may spread over a longer period and help economic development of the country. For example, government expenditure on the construction of social over heads and public utilities may lead to the emergence of external economies which in turn might benefit production activity to speed up and ultimately to break the vacious circle of poverty of an under developed country.

Fourthly, if the government expenditure is financed not by taxation but by deficit financing, one should not think that the society will get benefited as there are no sacrifice on the point of the tax payers. Deficit financing by itself may adversly affect the economic development of the country.

Lastly, while analysing the principle of maximum social advantage, we have considered only the tax revenues. But public revenue includes not only tax revenues but also fines, fees, profits of public sector undertakings, market borrowings etc .

12.3 TEST OF THE MAXIMUM SOCIAL ADVANTAGE

Inspite of the above limitations, the principle of maximum social advantage helps one to know whether the operations of public finance could benefit the community at large. As already mentioned the argument to limit the budgetary activities of the State to minimum possible level stems from the view that resources left in the hands of private individuals are more efficiently used to attain full employment and accelerated economic growth. This view fully supports the working of market mechanism in all its fairness. But if the market mechanism is not that efficient (which has been the experience of many countries in the world) the results obtained by having the resources at the disposal of the private sector would not be optimal. Resources left to the private sector generate inequalities of income and wealth. Thus the demand pattern does not really reflect the true needs of the society. For instance, Luxuries may be more demanded in the market at the cost of necessaries which the poor people cannot buy due to lack of adequate purchasing power. Also, market competition may culminate in more and more the working and which results in wastage of resources, unutilisation of productive capacity etc. evils. It becomes, then, necessary for the state to interfere in order to prevent all these defects. In other words, the State cannot remain indifference, to the working of the economy. As far as the principle of maximurn social advantage is concerned, we shall not be very rigid to take the total tax revenue and compare the same with that of total public expenditure. It is necessary to look into the composition and magnitudes of all the taxes and all items of public expenditure. Same Taxes may be justified for curbing inequalities of income and wealth. They should not be considered an evil.

The incidence and effects of taxation as also of Public expenditure should be carefully analysed to evaluate the benefits and sacrifices involved in the various operations of public finance. we must however be aware of that certain activities of the State cannot be measured in quantity terms.

Objectives Tests

Despite of the difficulties involved in making an objective assessment of public finance operations. Dalton has suggested certain objective tests to determine whether the State's activites are in confirmity with the principle of maximum social advantage. These tests are formulated on the basis of certain assumptions. Every society has certain desirable objective to achier. If could be achieved through the activities of the State, then it may be concluded that the State's public finance operations fulfil the principle of maximum social advantage. The desirable objectives spelt out by Dalton for which the society tries to achieve are not disputed by any body. Then, what are those objectives ?

The first objective relates' *to preserving the society*. The subjects of every State should be protected from external aggressions and from internal diorders. If the public finance operations of the State am so directed as to protect and preserve the society, it indicates adding to the social advantage. This is the first objective test to the principle of-public finance.

The Second objective relates to , increasing the economic welfare of the community. For this Dalton has suggested that there should be (a) an improvement in production and (b) an improvement in the distribution of national income. By improvement In production we mean that the productive capacity of the economy should have expanded. It does not mean an increase in the current output through capital consumption. If there is expansion of the productive capacity, it indicates more capital accumulation, better utilisation of resources an increase in the effeciency of the workers and reduction in unemployment and so on. According to Dalton if there is improvement in production due to public finance operations one can infer that the government has followed the principle of public finance.

The second objective test suggested by Dalton namely 'an improvement In the distribution of National Income is more complicated than the first test. This test is associate with efficiency and equity aspects of the distribution. Many a time decisions taken to improve efficiency in distribution go against the principle of equity,and vice-versa. Efficiency in distribution implies aggregate of satisfaction while equality relates to the redistribution of satisfaction so that one party gains at the expense of the other. There are, however, some common indicators to this test on which there is no disagreement. They are - (i) reduction in inequalities of income and wealth, (ii) reduction in unemployment (iii) improving the standard of living of the people (iv) increase in the rate of economic growth and (V) bringing about economic stability etc.

M. Ursula Hicks also has suggested some tests to judge whether the public finance operations do fulfill the principle of maximum social advantage. She has given two criteria namely (a) production optimum and (b) utility optimum. The output of any commodity can be changed by re-allocation of productive resources. According to Mrs. Hicks, production optimum is reached when it is not possible to increase the output of a commodity without reducing the output of any other commodity. In practice, it is not possible to achieve such a kind of optimum level. The production optimum stated by Mrs. Hicks is satisfied only under conditions of full employment and if then is not wastage of production resources. Normally, public finance operations may not satisfy these conditions. The second test namely 'utility optimum stated by her relates to the composition of the national output and the relative importance attached to the various component elements of it. According to Mrs. Hicks it is possible to change the total utility of the goods of the people by varying the composiion of the national output. So, a situation may be reached when the total utility to the society is maximised with a given composition of the national output. To that situation, she calls it 'utility optimum'.

And in such a situation, it is not possible to increase the satisfaction of one individual without diminish the satisfaction of another. Is it possible to reach such a 'utility optimum' in practice? Strictly speaking, it is not as we know that utility cannot be measured and therefore, objective measurement of relative importance of different goods and services cannot be made. Even if utility optimum could be measured by using some sophisticated mathematical tools, yet we cannot ignore that it changes over time.

In public finance operations, the tests suggested by Dalton and Hicks are more important from the analytic point of view rather than to put them into practice. Nevertheless, these tests give us some idea to judge whether the operations of Public Finance at a particular time do really promote economic and social welfare of the people.

12.4 SUMMARY

The last unit explained the nature and subject matter of public finances the increasing role of the States. As moderm welfare states have to perform innumerable functions, the public expenditure component of government budgets has tremendously ,increased. Public finance operations should be designed to provide maximum advantage or welfare to the people of the society. As we learnt in this unit, the criteria adopted to achieve this objective is known as "principle of maximum social advantage ". This principle has based on some assumptions. It has some limitations . We have tried to analyse these issues in this unit. Inspite of the limitations, the principle has a major role to play in the modern welfare world.

12.5 CHECK YOUR PROGRESS

I. Answer the following the questions in about 4 or 5 lines each.

1) What is the Principle of Maximum Social advantage
2) List the assumptions under which the principle of Maximum Social advantage operate
3) What are the limitations of the principles?

12.6 MODEL EXAMINATION QUESTIONS

I. Answer the following questions in about 30 lines each.

1. State and explain the tests of maximum social advantage.
2. Critically examine the principle of Maximum Social Advantage.

II. Answer the following questions in about 15 lines each.

1. Explain the limitations of the principle of Maximum Social Advantage.
2. Describe Dalton's tests of Maximum Social Advantage.

12.7 SUGGESTED BOOKS

1. B.P. Tyagi : **Public Finance**
2. H.L. Bhatia : **Public Finance**
3. Hugh Dalton : **Principles of Public Finance**
4. Andley and Sundaram : **Public Finance**
5. Vaish & H.S. Agarwal : **Public Finance**

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BLOCK – V : PUBLIC REVENUE – TAXATION

This block covers the Somies and classification of Public Revenue and also theoretical aspects of taxation the different types of taxes, i.e., direct and indirect taxes Canons of taxation are the basis of which taxes are imposed. It also explains the different theories of taxation and its elated to impact, incidence, effect and burden of taxation and measurement of incidence and burden taxation.

This Block contains the following 5 units.

Unit – 13: Sources and classification of Public Revenue and Canons of Taxation

Unit – 14: Direct and Indirect Taxes

Unit – 15: Progressive and Propertional Taxation

Unit – 16: Various theories of Taxation: Ability to pay and Benefit theories

Unit – 17: Impact and Incidence of Taxation

UNIT – 13 : SOURCES AND CLASSIFICATION OF PUBLIC REVENUE – CANONS OF TAXATION

Contents

13.0 OBJECTIVES

The purpose of this unit is to deal with the various sources from which the state raises revenue in order to perform its various functions and also discuss the various canons of taxation on basis of which taxes are imposed.

After reading the unit, you will be able to:

- list the various sources of public revenue;
- classify the public revenue into different categories;
- explain different public revenue concepts such as tax, fee, special assessment need, fine, penality, donations and escheat;
- analyse different canons of taxation;
- discuss the canons of taxation in developing countries; and
- identify the characteristics of a good tax system.

13.1 INTRODUCTION

There are many sources for public authority to get revenue. Modern States have many functions to perform and therefore, there is every need to raise adequate public revenue from various sources. The revenue of a public authority may be defined either in a broad and or in a narrow sense. The income of public authority in a broad sense includes all receipts while in the narrow sense it includes only such of those receipts which are commonly attributed to taxes, fees etc. These receipts increases the assets of the government without increasing its liabilities. In the broad sense, the revenue of the State includes not only the amount realized through taxes of all kinds but also revenues obtained from the sale of commodities produced by the State as well as the earnings from the departmental undertakings such as the Railways, the Post Office etc., and also receipts from public borrowings and paper money created.

During the 19 the century, the functions of State were very limited to protecting the people from extended aggression and internal disorders. The revenues required by the state to carry out its limited activities usually remained small. But in 20th century, especially after the second world war, there has been a tremendous increase in state activities which need substantial revenues and hence the importance attached to taxation in the filed of public revenue, it is worth while for us to know the manner in which taxes ought to be imposed. It has been argued by some economists that there should be a single tax only instead of having many taxes. Some have favoured taxes on consumption while others have favoured taxes on income, wealth and property. Likewise, in regard to the rate structure there is hardly any concensus among many economists. While progressive taxation ahd been supported by certain economists, proportional taxation also was considered important in the tax structure of an economy. Among all these divergent opinions, what should be the guidelines, on the basis of which taxes can be imposed? It becomes therefore necessary to study and understand the canons of taxation.

13.2 VARIOUS SOURCES OF PUBLIC REVENUE

In the modern times, the various sources of public revenue are: (i) the taxes of various types, (ii) fines imposed by the government on the offenders, (iii) compulsory loans, (iv) tributes and indemnities arising out of war or from other reasons, (v) income from public such as lease of government lands, (vi) profits of the public enterprises, (vii) fees for the services rendered by the government, (viii) receipts from voluntary public loans, (ix) betterment levy and other assessment, (x) voluntary gifts etc.

13.3 CLASSIFICATION OF PUBLIC REVENUE

Now, we shall deal with the classification of Public Revenue. Public revenue has been classified into the different categories by the different economists like Adam Smith, Bastable, H.C. Adams, Dalton, Seligman, Strirras and Philips E. Taylor.

Adam Smith classified public revenue into classess (a) income derived from the State property and (bank) income derived from the Public. In the first category we may have the revenue from public sector undertakings while in the second category, the revenue received from taxation. According to **Bastable** also, it has been divided into two categories, namely (a) the income which the State receives as al large corporation for providing commodities and services to the people and (b) the income which it receives due to its sovereign power. It can be seen that the first category is similar to that of an individual or a company receiving income by way of selling goods and services. The second category refers to taxation. According to **H.C. Adams,** public revenue is divided into three categories namely (a) Direct revenue which consists of income from public industries, gifts, railways, post offices etc., (b) Derivative revenue which refers to taxes, fees, fines etc. and (c) Anticipating revenue which refers to the income received due to sale of bonds or other forms of government securities. This last category mainly with public debt.

Dalton has classified public revenue into twelve main categories: (1) tax (2) tributes and indemnities whether arising out of war or otherwise (3) forced loans which were prevalent in olden days (4) pecuniary penalities for offences imposed by courts of justice (5) receipts from public property passively held like public lands leased out to tenants (6) income received from public industries charging not more than the competitive price (7) fees or payments made for services, not in the nature of business services performed by public officials such as the registration of births (8) receipts from voluntary public loans (9) receipts from those industries where the government charges monopoly price (10) receipts from special assessment (11) receipts from the use of the printing press for the purpose of meeting public expenditure by the issue of paper money and (12) voluntary gifts. After giving this ling list, Dalton observed that the most of the cases, the distinction is not clear because one kind of revenue overlaps gradually into another.

For a better perspective, we may first deal with the classification given by Selgiman a noted writer of Public Finance, and later find out its relevance to modern times. Public Finance has been broadly divided into three categories namely, (a) Gratutions revenue (b) contractual revenue and (c) compulsory revenue.

13.3.1 GRATUITIONS REVENUE

According to Seligman the first category of gratutions income consists of gifts, donations, etc., for obtaining such incomes the State does not direct any institution or individual. They are gratuitously made. We must however know that the importance of this kind of income has considerable reduced during the recent time. But grouping all such incomes as a class by themselves is justified as they differ from all the rest of the revenues the State is supposed to get. There is no obligation on the part of the state to provide some thing (service or good) in return to the persons who pay them. Dews included in this category items like gifts etc. which are neither very certain nor uniform in amount from year to year. It may also be observed that the incidence of gifts is not always proportional to the ability of the persons who make payments in the form of gifts.

13.3.2 CONTRACTUAL REVENUE

The second category relates to contractual revenue. It includes the revenues in the form of rents, sale proceeds from the goods/services sold by the State to the public etc. The State owns property in the form of land and buildings which are normally leased out to the people on certain contractual terms. Similarly, the sale of goods produced by the government enterprises as also of services like the Railways, Post Office etc. provide the state with certain revenue. For all such type of contractual incomes, Seligman calls them as 'prices', as they resemble very much the prices of goods or services charged by private-individuals. How ever, in modern welfare status the pricing of such public utilities has been a matter of controversy unlike those private goods determined by market mechanism.

13.3.3 COMPULSORY REVENUE

The third category relates to compulsory revenue which broadly includes taxes, fees and fines, special assessment etc. The state derives revenues from its domain, penal and taxing powers. The state has the powers of eminent domain in the sense that it can expropriate the property of its citizens, if necessary. But normally this power is not exercised by the state. The state is empowered to exercise its penal power and therefore, can impose fines and penalties which should be paid. The taxing power is very important from the revenue point of view. It was not given importance in olden days when the State's activities were kept at minimum and all taxes were considered as evil. But it modern days, most of the State's revenue comes from various types of taxes imposed on the public.

Seligman defines certain important items of revenues included under this compulsory cateogy:

Free, Tax, Special Assessment

Fee: A fee is a payment to defray the cost of each recurring service undertaken by the government primarily in the public interest but conferring a measurable special advantage on the fee-payer.

Tax: A tax is compulsory contribution from the person to the government to defray the expenses incurred in the common interest of all, without reference to special benefit conferred.

Special Assessment: A special assessment is a payment made once and for all to defray the cost of a specific improvement to property under-taken in the public interest and levied by the government in proportion to the particular benefit accruing to the property owner.

Ph.E. Taylor's Classification: Taylor classified Public Revenue in the following manner.

Donations and Gifts

Payments made by people to governments, or payments or contributions made by one government to another layer of government voluntarily without expecting a direct return belong to this category. For example, contributions made by the central government to state governments, states to local bodies to carryout specific programmes or duties are known as specific purpose grants or conditional grants-in-aid. If grants-in-aid are given either to meet the general financial needs or to fill the budgetary deficits are known as general grants-in-aid or revenue gap grants. The role and use of these grants in the modern times is quite large. Also people make gifts, donations etc. to the governments very generously with a national spirit at the time of wars, cyclones, floods etc. natural calamities.

Administrative Revenue

Administration revenues can be considered as an important revenue in recent time to the governments. Revenue from fees, penalties, license fees, special assessments, confiscations and escheats can be considered as administrative revenue. However, revenue from fees and special assessments is very important in several countries. These revenues accrue to the governments as a matter of general administration. Governments collect license fees in order to regulate certain activities. Penalties imposed by courts when individuals, institutions and governments breach contracts and laws, betterment levies imposed due to escalation of values of private properties due to the activities and schemes undertaken by the government and the properties of individuals without legal heirs belong to this category.

Commercial Revenues

The purchase prices to the goods and services produced directly by the government are known as commercial revenues. Government produces some goods and services and makes available at reasonable prices with specific objectives of social welfare and redistribution of income and wealth. Receipts from such sales can be considered as commercial revenues.

13.4 DIFFERENCE BETWEEN A TAX AND FEE

From the above, what distinction do we find between certain kinds of revenue? Take for example the main difference between a fee and a tax.

i) A tax is levied to defray a part of the expenses incurred by the government in providing general services to the public. A tax payer does not get a direct return of benefit (i.e. there is no quid pro quo). A fee is a payment for receiving a specific service from the government. So, a fee payer is directly benefited.

ii) Taxes are imposed on the basis of the 'ability to pay'. A fee is imposed taking into consideration the special benefit according to the fee-payer.

iii) A fee is adjusted either partly or wholly to the cost of service provided by the government to the fee payer. But not such measurement is possible individually in the case of a tax.

It must however be remembered that in respect of both fees as well as taxes, the primary intention of the government is to provide benefit to the whole society. But taken individually, we can see that fees confer a special and measurable advantage on the fee payers. Examples are the court fees, registration fees etc. Such individual benefit is not provided for the tax payers. The intention of the government in charging a fee is to regulate the conduct of the people who are willing to receive the service or benefit from the operations of state activities.

13.5 DIFFERENCES BETWEEN A TAX AND A SPECIAL ASSESSMENT

Similarly we may see some differences between a special assessment and a tax.

i) In the case of a special assessment, the element of public purpose is clearly seen. It must be possible to identify the beneficiaries. The assessment imposed should not be arbitary.

ii) While taxes are compulsory contributions to defray the expenses incurred by the government in the common interest of all, a special assessment is compulsory contribution paid by a beneficiary for the special benefit enjoyed by him.

iii) Special assessment is always proportional to the benefits enjoyed by the beneficiaries. For example, if a specific project has increased the property value in a locality, the special assessment is paid in proportion to the properties shared by the people. But in the case of taxes, they may be either proportional or progressive.

iv) Special assessment is a payment made once and for all. But taxes may be of recurring nature.

When we compare a special assessment with that of a tax, we find that although both are compulsory, a special benefit is associated with the former. So, a special assessment resembles a fee. But even then, there are some differences between a fee and a special assessment.

13.6 DIFFERENCES BETWEEN FEE AND SPECIAL ASSESSMENT

Firstly, special assessment is levied only for a specific local improvement while fees could be levied for any service provided by the government. Some of the fees paid to the government are simply meant to get permission to perform a particular activity. The field of operation of special assessment is therefore limited whereas that of a fee unlimited.

Secondly, fee have to be paid for every successive service rendered by the government to the people. But a special assessment is paid once for all.

Thirdly, in the cased of a special assessment, it is paid by the individual as a member of class which could receive the benefit. For a fee, it is not the case.

Lastly, we can see that special assessment always is associated with the benefits of real estate where as a fee may benefit other elements also.

13.7 OTHER CATEGORIES OF REVENUE

Besides fees, taxes and special assessment, we have some minor sources of revenue such as fines, penalties and donations.

Fines are imposed to prevent people from doing something prohibited by Law. If anybody violates the rules and regulations laid down by the government fines are imposed.

Penalties and forfeitures also are some kind of fines imposed on the people for the non-fulfilment of certain conditions. Fro instance, if a contract work is not completed within the stipulated time, government may impose a penalty on the contractor. Fines, penalties and forfeitures do not yield much revenue to the exchequer. These are imposed to regulate the behaviour of private individuals.

Donations are a kind of gifts the payment of which is quite uncertain. The government cannot expect much revenue from this source.

Similarly, the revenue from **escheats** is also very small. They refer to the properties of people who die without legal heirs or wills. Such properties are appropriated by the government.

13.8 VARIOUS SOURCES OF PUBLIC REVENUE - A BROAD CLASSIFICATION

The various sources of revenue discussed so far can be broadly classified in the modern sense into (1) taxes (2) administrative revenues (3) public domain and commercial revenues and (4) grants and gifts. The administrative revenues consist of fees, fines and penalties, escheats, special assessment etc. Under public domain and commercial revenues, we have the income from public property and the proceedings of departmental undertaking etc. As far as grants and gifts are concerned, they are usually made by lone government to the other in order to enable the later to perform certain specific functions. For instance in a federal set up, the Central Government provide the constituent states with certain grants. They need not be repaid. Gifts and voluntary contributions.

13.9 CANONS OF TAXATION

The need for taxation depends upon the objectives of the government. A substantial change has taken place with regard to the duties of the government in the last two centuries. Not-much need was felt for government revenues during the 19^{th} century as the government was confined to a few important functions such as defence and law and order. But the need for revenues of the modern governments has increased substantially due to the welfare objective of the government. A s a result, the importance of tax revenue has increased considerable. In course of time, the objectives of taxes have also been changed. But whatever may be the objectives of taxes; government has to observe certain canons while imposing taxes. It may be noted that the canons of taxation stated by Adam Smith, the father of economics, in 1776 are still acceptable even to day. Now we shall study these canons of Adam Smith.

13.9.1 CANON OF EQUALITY

According to Adam Smith, every citizen 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. Therefore, it appears that Adam Smith might have justified progressive taxation and ability to pay theory. But it was also argued that Smith was having proportional taxation in his mind because he stated that people should pay taxes in proportion to their incomes which they get under the protection of the state. This implies that Smith was in favour of proportional taxation. But as taxes are to be imposed on the basis of ability-to-pay, the canon of equality mostly justifies a progressive type of taxation. The canon of equality assumes importance in formulating the tax structure irrespective of the type of tax-progressive proportional.

13.9.2 CANON OF CERTAINTY

The tax which each individual is bound to pay ought to be certain and not arbitary. The time of payment, the manner of payment, the quantity to be paid ought to be clear to the contributor and to every other person. So the tax payer would not feel it a burden. From the point of view of the government also, the canon is very important in as much as the government would know how much tax revenue could be obtained from whom and at what time. Then only the government can make precise budget proposals. Hadley opined that attempting to achieve equity without achieving the canon of certainty would be an illusion.

13.9.3 CANON OF CONVENIENCE

According to this canon the taxes are to be levied at a time or in a manner in which it is most likely to be convenient for the tax payer to pay for it. The tax payer need to be given the opportunity to pay even in installments if the taxable amount is quite large. Similarly, it is convenient to collect hand revenue from the farmer at the time of harvest and income tax from the employees at the time of payment of the salary. It is convenient to collect indirect taxes like the sales tax at the time of purchase or sale along with the price of the commodity. For example, the tax payer pays unknowingly taxes like sales tax, excise duty etc. at the time of purchase of goods like refrigerators and televisions etc. So he does not feel the pinch of paying the tax. It is convenient to the government to collect the tax.

13.9.4 CANON OF ECONOMY

According to this canon, the cost of collection should be as minimum as possible. In other words, the revenue thus comes from a tax should be more than its cost of collection. According to Adam Smith "Every tax ought to be so contrived as both to take out and keep out of the pockets of the people as little as possible, over and above what it brings into the Public Treasury of the State". The importance of this canon in modern times has increased the cost of collection of several taxes have been increasing in recent times. However, taxes are imposed not only from the point of view of tax revenue and its cost of collection of several taxes have been increasing in recent times. However, taxes are imposed not only from the point of view of tax revenue and its cost of collection, but also to attain certain objectives like maximizing economic welfare and other economic effects. The revenue of the government increases because of the canon.

Source more canons of principles have been added by the later economists to the canons of Adam Smith. These canons are not as effective as that of Smith's canons, but still essume importance. So let us know those canons briefly.

13.9.5 CANON OF PRODUCTIVITY

According to Bastable, C.F. the tax structure of a country should provide the necessary fiscal resources to enable the government to enable it to discharge its duties. It means a tax kit of a few productive taxes is more important than so many unproductive taxes. According to Gladstone, "The very objective for which the revenue system exists is to provide for the maintenance of the state and therefore, the Minister in charge of finance naturally estimates the merits of a tax by the amount of its field".

13.9.6 CANON OF ELASTICITY

The canon was also stated by C.F. Bastable. The main idea of this canon is that the government should get more and more tax revenue as its needs increase. The taxes should be elastic means an increase in tax revenue more proportionately than increase in the national income. On the other hand, if the increase in the tax revenue is less than proportionate than the increase in the national income it is called inelastic. Therefore, elastic taxes are better and needed for the government according to this canon.

13.9.7 CANON OF SIMPLICITY

According to this canon, the tax system should be simple, plain and intelligible so that there should not be any difficulty for the tax payer to understand it. The tax payers would be subject to lot of suffering and inconvenience if the tax laws are not simple but regid. The rigidity of tax laws may lead to tax evasion.

13.9.8 CANON OF DIVERSITY

This canon states that the government should adopt a tax system containing different kinds of taxes having mutual coordination. The tax structure should be a mix of direct and indirect taxes, progressive and proportional taxes, income, wealth and consumption taxes, specific and advalorem taxes, income, wealth and consumption taxes, specific and advalorem taxes. Every tax payer is inclined to pay taxes under such a diverse tax system. The gift of this canon is that the government should impose different kinds of taxes in order to mobilize the required fiscal resources.

But the canons as advocated by Adam Smith and other economists may contradict each other. For instance, there may arise a conflict between the canons of productivity and equity. So where ever there arises a conflict between any two canons, that canon should be observed which has more importance. According to Shirras in the case of a conflict, the more important canon under the circumstance be chosen.

13.10 CANONS OF TAXATION IN DEVELOPING COUNTRIES

In an under-developed country, what should be the canons of taxation? The canons discussed already equally apply to all types of economies both developed as well as the underdeveloped. However, in under-developed economy, the main objective of fiscal policy is to promote the growth process which is mainly a function of capital formation. So the following aspects should be given importance in the tax structure of an under-developed economy.

13.10.1 MOBILISATION OF ECONOMIC SURPLUSES

One of the main objective of taxation in underdeveloped economies should be to locate surpluses and channels their taxation so that government can use the same for investment purposes. In other words taxation should be such as to help faster rapid capital accumulation. In doing so, it is however, necessary to take enough care that taxes should not discourage the very generation of surpluses by the individuals or the enterprise. The following example makes the point clear. When government imposes a personal income tax the disposal income of the tax payer is reduced by the extent of the tax amount. If very high rates of taxation are adopted, they may adversely affect the individual tax payer's initiative to work more and earn more. It is obvious for him to think that by putting more effort, whatever extra income he earns is taken away by the high rates of personal income tax. So, his preference to generate more income is adversely affected. Therefore, the most difficult aspect is to identify or locate the surpluses generated in the economy during the process of economic development. When once the surpluses are located, it is possible to mobilize them by suitable taxation.

13.10.2 REDUCING CONSPICUOUS CONSUMPTION

The people of an under-developed country are generally poor. In the process of economic development, it is but natural that their incomes are increased. In the initial stages of economic development, we notice that their consumption expenditure registers an increase along with increase in their incomes. But greater consumption means lesser availability of resources for investment. As the country's progress depends very much on rate of investment, it is necessary to curb the increase in their consumption by imposing taxes on commodities other than necessaries. Indirect taxes imposed mostly on luxurious goods are effective in reducing their consumption so that resources are released for investment purposes.

13.10.3 THE CANON OF INCOME ELASTICITY OF TAXATION

It has been found in most of underdeveloped economies that the increase in tax revenues is less than the proportionate increase in national income. It means that the income elasticity of taxation is less than one or to put the same in a different way is to say that the tax system in these countries is "inelastic". So, the tax structure should be such+ that na increasing proportion of the increments to national in come should get automatically siphoned off into the Public exchequer without any additional tax effort by the government. If this feature is seen in a tax system, we can say that it possesses the needed flexibility. To satisfy this canon it is necessary to tax such of those goods which have a hgh inmcome elasticity of demand. If the tax system is progressive, it is possible to achieve this canon.

13.10.4 CANON OF EQUITY

In so far as an under developed country is concerned, the burden of taxation should be distributed equitably among different classes of people. They should help in getting the inequalities of income and wealth reduced. The rich should be taxed more as their 'ability to pay' is also more than that of the poor. At the same time, care should be taken that taxation in these countries does not adversely affect the incentives for higher production and savings.

13.11 CHARACTERSTICS OF A GOOD TAX SYSTEM

Generally it is believed that if a tax system in a country satisfied a good number of the canons stated above, it may be considered as a good tax system. It may however be stated that no tax system would be in a position to satisfy all the aforesaid canons in as much as there are certain conflicts with each other. Therefore, importance should be given to see that the majority of the canons of taxation are fulfilled. Another point which is essential to know is that the canons of taxation may not be common for all countries at all times. Depending upon the level of economic development already reached by an individual country, it must be judged which of the canons are better suited to its tax system. Various aspects of taxation have to be analysed. For instance, some of the problems of tax system have to be viewed from administrative angle; while some have to be viewed from different angles like the various kinds, forms, rates and timings of taxation. The following points have to be kept in mind while analyzing the tax system of a country.

13.11.1 EFFECTS OF TAX ON THE ECONOMY

Firstly, it must be remembered that a tax system has to be judged from its effects on the economy. So, strictly speaking it is not correct to look at taxation in isolation ignoring completely the non-tax elements as well as the items of Public Expenditure in the budget. We cannot say whether it is a good tax system or not unless we look into the benefits of Public expenditure also simultaneously. But as the revenue obtained from taxation is mixed up with all other kinds of revenues like non-tax revenues; public borrowing, deficit financing etc., it, however, becomes very difficult to measure the burdens of taxation in comparison with the benefits of Public Expenditure. In a limited sense, we may look into the various aspects of taxation like forms, rates and timings of taxation, assuming all other variables remain unchanged. So, when we talk of a good tax system, we normally look at taxation only in isolation.

13.11.2 COMPARISON OF DIFFERENT TAX SYSTEMS

Secondly, while analyzing a tax system we have to look into many dimensions of it. Alternatively tax systems yielding more or less the same revenue but having less economic ills may have to be chosen. Each system may have its merits and demerits in terms of economic as well as social effects. As there may be conflicting objectives among different tax systems, it is very difficult to make a choice of them. So one has to compare the merits and demerits of one tax system with that of the other. In other words it is necessary to attach much importance to the 'trade off' between different objectives. The country may opt for a particular tax system depending upon it sown preference to such system.

13.11.3 PRACTICALITY

Thirdly, it may be seen that what is theoretically the best need not necessarily be the best in practice also. In abstract theory, marginal utility and disutility of various tax measures are comparable. But in practice measurement of marginal utility of money is faught with many difficulties. There may also be difficulties in actual implementation of the so-called good taxes due to administrative, political and other reasons. Therefore, it is essential on the part of the government to carefully think of practical problems when taxes are formulated.

13.11.4 ATTITUDE OF THE TAX PAYERS

Fourthly, it is the view of some scholars on Public Finance that the attitude of the tax payers should be taken as an important variable in judging a tax system. Every tax payer prefers to bear less of the tax burden by himself, no matter whether others bear heavy burden. It is essential to see that the tax burden is distributed equitably among all the tax payers. No tax payer should feel that he bears unduly more burden than others. In practice, the attitude of tax payers in influenced by many factors, of which some of them may even be non-economic such as the political situation in the country, natural calamities like floods and droughts etc. Therefore, it is necessary to make the tax laws flexible so as to accommodate such situations.

13.11.5 TIME CONSIDERATION FOR CHANGES IN TAX SYSTEM

Fifthly, it is also necessary to understand that changes in a tax system cannot be brought all of a sudden. An individual tax can be newly introduced or an existing tax can be dropped altogether or got amended. But for the entire tax system as a whole, it may take quite a long time to bring out the necessary changes.

All these aforesaid aspects have to be carefully looked into when we analyse a tax system. By and large, a good tax system is expected to be in harmony with important national objectives. Many modern writers on Public Finance are of the opinion that a good tax system should be based on the principle of progression. In other words, the rate of tax should increase correspondingly with every increase in the national income. If this principle is fulfilled, the tax burden would be more borne by the richer sections of the society rather than the poor. Proportional and regressive taxes should be kept at the minimum.

13.11.5.1 Musgrave's Explanation

Musgrave has explained same of the characteristics of a good tax system. They are as follows:

i) The distribution of the tax burden should be equitable.

ii) Minimum interference with economic decisions.

iii) Minimum interference with the equity of the system.

iv) It should facilitate the use of fiscal policy for stabilization and growth objectives.

v) Fair and non-arbitary administration.

vi) Administration and compliance costs should be as low as possible.

Among direct and indirect taxes, the preference of the modern writers is on the former. A diversified tax system consisting of all sorts of taxes is preferred to a single tax system. This should not, however, mean multiplicity of taxes which is not good in any tax system.

13.11.5.2 J.R. Hicks' Explanation

According to Mrs. Hicks a good tax system should posses mainly three important characteristics. Firstly, taxation should be able to provide adequate revenues to meet the expenditure on public services. Secondly, the general public should be taxed according to their 'ability to pay' (i.e. canon of equity) which depends upon the tax payers income and family circumstances. And Thirdly, taxes should be universal in the sense that persons similarly positioned should be treated alike without any discrimination. Some other writers have given importance to the development of trade and industry. The tax system should be such as to promote economic development of the country.

In conclusion, we may state that a good tax system should possess the following characteristics:

1. The tax system should be diversified. Multiplicity of taxes is not desirable.
2. It should be equitable.
3. It should be simple.
4. The tax system should be efficient from the administrative point of view in the sense that there should be hardly be any scope for tax evasion and corruption.
5. It should be elastic and buoyant.
6. The cost of administration should be fairly low.
7. It should be capable of reducing the inequalities of income and wealth.
8. It should help the growth process by encouraging trade and industry. It means, sufficient incentives should be provided for hard work.
9. The entire tax system should be properly integrated.

13.12 SUMMARY

We have learnt the different sources of public revenue, classification of public revenue as advocated by the different economists. By classifying into different forms. It is possible for us to know how these various sources of income resemble one an other and in what ways they differ. In this unit, we have already learnt that tax is a compulsory levy by which public revenue is a cerned to the state. The feature of a tax system change over the time the need that arises is on what basis tax can be imposed, in this unit, we tried to analyse the canons of taxation and particularly in developing countries. An effort were made here to study the characteristics of good tax system.

13.13 CHECK YOUR PROGRESS

I. Answer the following questions in about 4 or 5 lines each.

1. List any four sources of public revenue.
2. Explain Adam's classification of the public revenue.
3. Recall the three categories of public revenue as explained by Seligman.
4. Explain the differences between tax and fee.
5. List the canons of tax action as propounded by Adam Smith.
6. What are the other canon of taxations.
7. What are the aspects to be considered as the tax structure of developing countries.

13.14 GLOSSARY

Gratutions Revenue : This revenue is an income which comes from gifts, donations.

Contractual Revenue : Contractual revenue includes the form of rents, sale proceeds from the goods and services sold by the state to the public. For example, the state leases out its property, building and lands to the people.

Compulsory Revenue : It includes taxes, fees, fines and special assessment.

Fee : A fee is a payment to defray the cost of each recurring services undertaken by the government primarily in the public interest.

Tax : A tax is compulsory contribution from the person to the government to detray the expenses incurred in the comprison interest of the people.

Special Assessment : It is levied only for a specific local improvement and profit by the individuals as a member of the class who receive the benefit.

Fines : These are imposed to prevent people from doing something prohibited by lawer.

Penalty : These are some kinds of fines imposed or the people for the non-fulfilment of certain conditions.

Donations : These are some kinds of gifts the payment of which is guide in certain.

Es cheats : These refer to the properties of people who i.e. with rennet legal freses a wills such properting are appropriated by the government.

13.15 MODEL EXAMINATION QUESTIONS

I. Answer the following questions in about 30 lines each.

1. Explain the various sources of Public Revenue.
2. Classify public revenue into various categories.
3. Discuss the canons of taxation.
4. Explain the characteristics of good tax system.

II. Answer the following questions in about 15 lines each.

1. List the variours sources of Public Revenue.
2. Discuss the Musgrave's good tax system.
3. Explain the following concepts

   a) Tax b) Fee c) Special Assessment

13.16 SUGGESTED BOOKS

1. B.P. Thyagi : **Public Finance**
2. M.L. Bhatia : **Public Finance**
3. Hugh Dalton : **Principles of Public Finance**
4. Musgrave R.A. & Musgrave P.B. : **Public Finance in Theory and Practice**

- Prof. R. Sudarshan Rao

UNIT – 14 : DIRECT AND INDIRECT TAXES

Contents

14.0 OBJECTIVES

The aim of this unit is to explain the classification of taxes and the merits and demerits of direct and indirect taxes.

After reading this unit you will be able to:

- understand classification of taxes;
- assess merits and demerits of direct and indirect taxes;
- know the role of these taxes in developed and developing countries; and
- explain important countries direct and indirect taxes.

14.1 INTRODUCTION

Taxes assume very important place in public taxes revenue as explained in the earlier unit. We have learnt the characteristics of a tax in the last unit. The classification of taxes is discussed in this unit. The taxes can be divided as direct and indirect taxes. Both direct and indirect taxes have their own merits and demerits. All the developed nations depend mostly on direct taxes; developing nations rely on Indirect taxes. Income tax, Expenditure tax, Wealth tax, corporation tax are some important direct taxes, Excise duties, Custom duties, Sales tax etc are indirect taxes. All these aspects are discussed in this unit.

14.2 DIRECT AND INDIRECT TAXES - CLASSIFICATION

Taxes can be divided into two categories, i.e. direct and indirect taxes. The income, expenditure tax, wealth tax, sales tax, consumption tax, etc. in an economy, whether they are advelorem or specific taxes, can be divided as direct and indirect taxes. So let us learn these taxes in more detail.

Importantly, taxes are divided as direct and indirect taxes on the basis of transferability of the tax imposed. Several economists opined that those taxes the burden of which can be transferred are known as indirect taxes and those taxes, the burden of which cannot be transferred are known as direct taxes. In other words, the tax payer bears the entire burden in the case of direct taxes which means both impact and incidence of the tax is on the same tax payer. The tax payer transfers the tax burden to others in the case of an indirect tax. This means, even though the impact of the tax is on one tax payer, the final burden of the tax is born by another in the case of an indirect tax. So those taxes for which the impact and incidence of the tax are different are indirect taxes. So shifting and incidence of the tax is the main basis for dividing the taxes as direct and indirect taxes.

There exists ambiguity in the classification of taxes as direct and indirect taxes. Moreover, there is no unanimity among economists in this regard. For example, economists believed that a tax on production is indirect tax,. Some economists opined that a tax on income is direct tax while on expenditure tax is a direct tax. J.S. Mill opined that the intention of the Government is very important to categorize the taxes as direct and indirect. According to Mill, if the tax is paid by the same person on whom the tax is imposed initially by the government is known as direct tax. If the government's intention is to shift the tax by a person on whom the government has initially imposed the tax is known as indirect tax. According to Dalton if a tax is paid by a person on whom it is legally imposed is a direct tax, while a tax which is shifted either partly or fully from a person on whom it is legally imposed is known as indirect tax. In this way, there is opinion divergently among economists with regard to classification of taxes as direct taxes and indirect taxes. Moreover, several economists have expressed doubts about the justice and relationally of this classification. It has been stated that all taxes imposed on production as direct taxes and all taxes imposed on consumption are indirect taxes though they depend on each other. Similarly, it may not be relational to classify the taxes as direct and indirect taxes over the basis of income and expenditure. Because, these two economic activities in the economy are interdependent. Even the indirect taxes which are imposed on the basis of production and consumption are not same in their method of imposition. Indirect taxes can be imposed either as specific taxes or advelorem taxes. If a tax is imposed on the basis of the physical characteristics, it is called a specific tax and if it is imposed on the basis of the value of the commodity, it is known as advelorem tax. There exists both direct and indirect taxes in almost all countries whatever may be the method of taxation and on whatever activities they are imposed. There is an economy or a nation where we do not find either of these taxes. Therefore, it is necessary to know more about the merits and demerits of these taxes.

14.3 MERITIS OF DIRECT TAXES

14.3.1 ABILITY TO PAY AS THE BASIS

Direct taxes can be imposed on the basis of ability-to-pay of the tax payers. So the canon of equity in the distribution of tax burden is observed. There is no scope for shifting the tax burden of a tax which is legally imposed. The ability to pay of the tax payers is directly determined by the government. Therefore, the canon of equity as stated by AdanSmith is observed in the case of direct taxes.

14.3.2 REDUCTION OF INEQUALITIES

Direct taxes play a very important role in reducing inequality of income and wealth in the economy.

14.3.3 PROGRESSIVE TAXATION

The direct taxes are very useful for adopting a progressive tax structure and all direct taxes are progressive taxes only. It means with regard to direct taxes the tax rate increase as the ax rate base increases. It is possible to achieve the principle of Minimum Aggregate Sacrifice through direct taxes only.

14.3.4 CANON OF CERTAINTY

This cannon of taxation indicates grantitum of tax, time and mode of payment.

The canon of certainty is applicable in the case of direct taxes. With regard to direct taxes, the individual tax payers are aware of the fact that how much of the tax, when and how to pay the tax. Similarly the government can also estimate that how much revenue it gets in a particular year.

14.3.5 PRODUCTIVITY AND ELASTICITY

Direct taxes are more productive and elastic. The revenue can be adjusted according to the requirement of the government. Because the direct taxes are more productive.

14.3.6 NO DISTORTIONS IN THE ALLOCATION OF RESOURCES

Direct taxes are more favoured on the grounds of welfare implications. Direct taxes do not cause any distortions in the allocation of resources.

14.3.7 SENE OF CIVIC RESPONSIBILITY

The direct tax payers feel a sense of civic responsibility and may watch closely the revenue and expenditure activities of the government. So the wasteful expenditure of the government may be reduced. In this regard, direct taxes are more useful than indirect taxes.

Therefore, direct taxes are very useful to reduce inequalities of income and wealth, to follow the principle of ability-to-pay to provide adequate revenues to the government etc. However they are not without demerits.

14.6.3 INFLATIONARY CHARACTER

Indirect taxes are inflationary in character. These taxes are imposed on goods and services and on inputs and factors of production at different stages of production leading to an increase in the cost of production and higher prices. Indirect taxes are attributed to be an important reason for price rise.

14.6.4 TAX EVASION

Business people and industriality evade the tax just like in the case of direct taxes. Tax evasion in indirect taxes takes place due to smuggling, corruption etc.

14.6.5 HIGHCOST OF COLLECTION

A broad based administrative net work is necessary for indirect tax assessment and collection. So the government incurs higher administrative costs for administrating the taxes.

14.7 COMPARISION OF DIRECT AND INDIRECT TAXES :

We understand that there are advantages and disadvantages in the case of both direct and indirect taxes. It may be noted that these two types of taxes are in vougue in almost all the countries. But there is no unanimity among economists with regard to the type of tax from the point of view of sacrifice. According to Hicks, direct taxes are better than indirect taxes as individuals exert less sacrifice in the case of direct taxes compared to indirect taxes. It is necessary to take into account the impact of these taxes on production and distribution, savings and investment, public expenditure, employment etc. before making any useful analysis. These two types of taxes are being imposed in almost all the countries though their importance depends largely on economic situation and the level of development of the respective countries.

14.8 DIRECT AND INDIRECT TAXES IN DEVELOPING AND DEVELOPED ECONOMICS

There is scarcity of resources in developing countries. Acceleration of economic growth, increasing capital accumulation, eradication of poverty are some of the objectives of the governments in these countries. The governments have to mobilize the required resources through taxation. However, there is no unanimity among economists whether direct taxes or indirect taxes are to be used more. A look at the world nations reveals that direct taxes assume more importance in the developed nations, developing nations use more indirect taxes to mobilize revenue. Generally governments depend more on indirect taxes in the initial stages of economic development and depend mostly on direct taxes once economic development is achieved. Even countries like the USA and the UK depended more on indirect taxes during the early stages of economic development and later shifted to direct taxes. We will learn some of these things more elaborately in the following sections.

14.8.1 DIRECT TAXES IN DEVELOPED COUNTRIES

Direct taxes have been playing an important role in developed countries as explained above. According to an estimate of the UNO, out of the total tax revenue of developed and developing economics like USA, Britain, Australia, Japan, India, the Philippines, Pakistan the share of direct tax revenue in the developed nations is about 70 to 90 per cent. This is mainly because of a higher level of per-capita income and standard of living. As a result, the scope of getting more and more income would be there due to a higher income elasticity direct taxes. Richard Good opined that in the developed nations, the proportion of direct taxes would be more in the tax structure and provides ample scope for raising revenues. According to him, the existence of a predominantly money income, high level of literacy, honesty among tax payers, willingness to pay taxes and an honest and efficient tax administration in the developed economies are very favourable for the imposition of direct taxes.

14.8.2 THE ROLE OF DIRECT TAXES IN DEVELOPING NATIONS

Both direct and indirect taxes are necessary in the developing economies in order to reach the revenue targets. However, indirect taxes play an important and special role in these countries. Several economists like Alfred Marshal and Hicks justified the direct taxes. It is opined that if a given amount is to be collected either by direct or indirect taxes, direct taxes are better than indirect taxes from the point of view of welfare implications of the tax payers. While Marshal opined that the reduction in consumer's surplus is more than the revenue gain for indirect taxes, Hicks believed that the taxes on goods and services would impose more burden than income tax. Moreover, the situation in the developing economies is not very conducive to direct taxes. There are several socio - economic and political factors which can be attributed to the limited role of direct taxes. According to Adler, land lords, urban property owners, industrialists political influence, inflation, non-revision of tax rates from time to time, lack of property tax assessment etc. are important reasons for the limited role of the direct taxes. N. Kaldor felt that in underdeveloped countries, the economy consists of small enterprises which are not very favourable to direct taxes. Moreover, the size of the money market, wages, profits being at low level, etc, are not conducive for the imposition of direct taxes. So the governments in such nations depend mostly on indirect taxation. But both the types of taxes are paying their role in the developing nations. Though indirect taxes help achieving the desired revenue in the assume importance once a particular level of economic development is reached. The economies of the UK and America are known for their direct taxes. Moreover, the tax structure in these countries is such that tax revenue increases whenever there is an increase in national income. Though all the advantages of direct taxes apply in these countries also, when compared with indirect taxes, their importance is always low. However, the rationality and justification for the indirect taxes in these countries may be analysed below.

14.8.3 INDIRECT TAXES IN DEVELOPING ECONOMIES

Even the developed countries like Russia and Japan also depended on indirect taxes in the initial stages of economic development, all the developing nations without any exception depended upon heavily on indirect taxes. As stated by Arthur Lewis, the tax payers do not-know how much tax they pay in the case of indirect taxes as tax element becomes part of the price. Payment of tax involves psychology of the tax payer and the unhappiness can be eliminated by imposing indirect taxes compared to direct taxes. In other words, indirect taxes cause less unhappiness among the tax payers. The governments in these countries can better mobilize adequate revenues through indirect taxes compared to direct taxes as the average income is less. Moreover, it is necessary to regulate the conspicuous consumption and it is easy to effect through indirect taxes. But care needs to be taken that the standard of living of the people is not badly affected. According to R.I Chelliah, indirect taxes should control or regulate the increases in the consumption of the people but should not aim at reducing the

14.4 DEMERITS OF DIRECT TAXES

14.4.1 AGAINST THE CANON OF CONVENIENCE

Direct taxes are against the canon of convenience as stated by Adam Smith. Tax payers feel the pinch of paying the taxes in the case of direct taxes as they have to pay in lump sum amounts knowingly in advance. Moreover, some times tax amount has to be paid in advance causing lot-of inconvenience to the tax payer.

14.4.2 UNPOPULAR

Generally, people oppose the imposition of direct taxes and also the tax rates. Direct taxes are less favoured because the burden is directly experienced by the people and also due to lack of direct returns.

14.4.3 ADVERSE EFFECTS ON SAVINGS AND INVESTMENT

It is widely believed that direct taxes cause adverse effects on saving and investment. It means some of the direct taxes reduce the individual's ability as well as the desire to save and invest. It may be noted that income tax, interest tax, wealth tax, expenditure tax etc may have an adverse impact on savings and investment but there are several other factors which are responsible to these effect.

14.4.4 TAX EVASION

Direct taxes have become less productive and elastic in modern times. This is mainly because of the corruption that prevails in the administration of the tax. So it leads to large-scale tax evasion. However, it is not an exclusive characteristic of direct taxes.

14.4.5 COMPLIANCE COST

Direct tax laws are so complex and rigid that they are not easily understable to the tax payer. So in order to file the returns, to prepare the required records and papers they some times have to pay huge amounts to the Charted Accountants and lawyers by paying large amount of money.

14.4.6 LIMITED SCOPE

Direct taxes have a limited scope as these taxes are imposed on a few people. All individuals and households need not necessarily pay direct taxes. So compared to indirect taxes, especially in the developing nations, the scope of direct taxes is much lower.

14.5 MERITS OF INDIRECT TAXES

There are some advantages of indirect taxes just like the advantages of direct taxes. The advantages of indirect taxes are explained below.

14.5.1 CONVENIENT TO PAY

Indirect taxes are convenient to pay as they are collected at the time of transactions of sale of purchase of goods and services in small amounts along with the prices. The tax payers pay the tax unknowingly as the tax element is implicit in the price.

14.5.2 BROAD TAX BASE

As the indirect taxes are imposed in relation to economic transactions and activities, the tax base is very wide especially in the developing economies. So they get a lot of revenue to the governments.

14.5.3 TAX EVASION LESS

Though tax evasion exists with indirect taxes also, in relative sense tax evasion is less compared to direct taxes. It is very difficult to evade the payment of indirect taxes like excise duty and sales tax when the administration is very efficient. However, it has been argued that tax evasion is more in sales tax than in excise duty.

14.5.4 ELASTIC REVENUE

The developing economies, while undertaking planned economic development depend mostly on revenue from indirect taxes. This is mainly because of inadequate revenue from direct taxes.

14.5.5 REDUCES CONSPICOUS CONSUMPTION

Indirect taxes reduce both production and consumption of conspicuous commodities. So the resources saved can thus be diverted for economic development. The indirect taxes not only regulate the production and consumption of goods in the economy but also employment and consumption.

14.5.6 PRINCIPLE OF EQUITY

Indirect taxes can be imposed with high progression rates on those goods which are consumed by the rich people so the principle of equity is fulfilled. These taxes are useful in reducing inequalities of consumption among different sections of the society. It may be noted that all the merits mentioned above have their own limitations.

14.6 DEMERITS OF INDIRECT TAXES

Let us know the demerits of indirect taxes.

14.6.1 REGRESSIVENESS

One of the important demerits of indirect taxes is their regressive character. Both the rich and the poor pay equal amount of tax while purchasing a good. So these taxes negate the principle of ability-to-pay and the canon of equity.

14.6.2 UNCERTAINTY OF REVENUE

The government cannot forecast the exact amount of revenue in a particular year. People may shift their demand for some goods on which taxes are higher. So there may be a decline in the tax yield. People may either postpone or avoid their consumption whenever taxes are hiked except in the case of essential commodities. The revenue from indirect taxes gets reduced during depression.

present level of consumption. Indirect taxes are very good instruments in this regard. The indirect taxes can be made progression by imposing higher rates of taxes on luxury and semi-luxury items in order to reduce conspicuous consumption in the economy. According to some economists, especially U.K.Hicks inflation can be controlled by imposing indirect taxes though there is an argument in contrast that they increase inflation. Therefore, it may be noted that in the developing economies indirect taxes occupy a very important role. In view of the merits and demerits both these taxes have, it is necessary to make a comparatively analysis of these two taxes.

14.9 WHICH ONE IS BETTER BETWEEN DIRECT AND INDIRECT TAXES?

The advantages and disadvantages can best be judged by their respective effects on 1)Allocation of Resources 2) Administration 3) Distribution.

14.9.1 ALLOCATION OF RESOURCES

Economists believed that the allocative effects of direct taxes are better than indirect taxes. This means, the burden of tax on the people would be minimum if a given amount is collected by direct taxes compared to indirect taxes. In other words, economists proved through an analysis of indifference curves that the loss of utility due to direct taxes would be less than the loss of utility due to the imposition of indirect taxes to raise a given amount of tax revenue. So they commended the use of direct taxes more.

14.9.2 ADMINISTRATION

The comparative analysis can be made from the point of view of administrative costs and efficiency. Indirect taxes help in keeping the administrative costs at the minimum. According to A.R.Prest indirect taxes are much favoured on the grounds of less administrative costs. Indirect taxes are to be justified from this angle in the underdeveloped economies. However, one should not think that direct taxes are inferior to indirect taxes in all respects.

14.9.3 REDISTRIBUTION

Direct and indirect taxes are judged from their redistribution effects. Generally governments aim at reducing inequalities of income and wealth and direct taxes play a crucial role in reducing or alleviating these inequalities by placing heavier burdens of taxes on the richer people. Direct taxes are superior to indirect taxes because of their progressively. It is pertinent to note here that even though indirect taxes are as superior as that of direct taxes, they are also useful in reducing inequalities by adopting high rates of taxes on the luxurious goods and exempting the essential goods from taxation altogether or reducing the tax rates. According to A.R.Prest both direct and indirect taxes are useful in reducing inequalities of income and wealth as alternative methods. So direct and indirect taxes should be treated as complementaries.

14.10 COMPLEMENTARY TAXES

Deviti Demareo opined that both direct and indirect taxes are complementary taxes. In view of the limitations of the scope of these taxes, both of them are inevitable in any economy. According to him not only these taxes are complementary each other, they also reduce the friction force between the tax payers and the government. In the modern days governments, irrespective of their levels of economic development, have been mobilizing resources adopting both the types of taxes.

14.11 IMPORTANT DIRECT TAXES

14.11.1 INDIVIDUAL INCOME TAX

It is not exaggeration to say that there is no country which is not imposing individual income tax. Government imposes a tax on individual or household income. Income tax may be imposed either universally or partially. While income tax is imposed on the incomes originated in the country while the income generated in other countries is also taken into account in some other countries. Income is divided into three types in modern times 1) income as service-flow in consumption 2) income as a recurrent receipts 3) income as a net addition to the individual. Individual income tax is levied on the basis of these three ways and in almost all countries progressive rate structure is adopted.

14.11.2 CORPORATION TAX

.The tax on incomes of the company is known as corporation tax or company income tax. It shows the ability-to-pay of the company or the shareholders of the company. Government gives some concessions and exemptions while imposing this tax just as in the case of individual income tax. Corporation tax assumes importance in attracting Foreign Direct Investment (FDI). It may be treated as one of the important taxes among direct taxes.

14.11.3 EXPENDITURE TAX

This is also an important direct tax especially in the developed countries. The tax is imposed taking into account the individual's or family's expenditure. Economists like Hobbs, Mill, Fisher and Kaldor justified the imposition of this tax. According to these economists imposing a tax on the basis of expenditure is more justified than on income. It especially, promotes savings. It is necessary not only in the developed nations but also in the developing nations. In addition, taxes such as Wealth Tax, Gift-tax, Estate Duty, Land Revenue are some of the direct taxes implemented in several countries.

14.12 IMPORTANT INDIRECT TAXES

SALES TAX : Sales tax is imposed on the sale or purchase of the goods and services. But in India sales tax is not imposed on services and only recently some services are taxes. Sales tax is imposed either as an advalorem or specific tax. It may be imposed as a single point, double point or multi-point tax. It is one of the most important taxes among the indirect taxes.

14.12.1 EXCISE DUTY

This tax is recognized as an important indirect tax all over the world. This is a tax imposed on the goods at the production stage which are meant for sale or consumption. This is imposed in India by the Central Government. In India, states also impose excise duties on some goods as per the constitution. While some of these taxes are advelorem, others are specific nature. The revenue from central excise duties is the highest in the total tax revenue of the central government in India.

14.12.2 CUSTOMS DUTIES

If taxes are imposed on goods imported or exported, they are known as customs duties. The revenue from customs duty occupies the second place in the total central government tax revenue in India. If a government impose taxes or duties on the imports are known as import duties while the taxes or duties imposed at the time of exporting is known as export duties. These duties are imposed to protect the domestic industry and the goods from competition of external goods and industry, to augment foreign exchange and also to regulate industrial trade.

14.12.3 VALUE ADDED TAX

Value Added Tax (VAT) belongs to the family of sales tax. Under this system a tax is imposed at various stages on the value added instead of on the gross value of the product. Value added can be assessed by deducting the value of inputs used or purchased from other establishments from the gross value of the product. The tax imposed on such value is known as Value Added Tax. This tax is implemented in more than 100 countries all over the world. Efforts are being made to implement this tax in India in its full-fledged form from 1-4-2003, even though MODVAT (Modified Value Added Tax) has been in practice quick form some time now. The main advantage of this method of taxation is to reduce inflation.

14.12.4 TAXES ON SERVICES

The central government has been imposing taxes on selected services since 1994-95. It is interesting to note that Service Tax is not imposed in all the countries. But its importance has been increasing as the share of service sector in the national economy is increasing. It may be noted that the Service Tax would assume more importance in future.

It is to be noted that the Local governments also impose both direct and indirect taxes besides the Central and State Governments. The Local Governments posses special tax powers in a federation. Let us examine the taxes imposed by the Local Governments. However, these tax powers need not necessarily be possessed by a particular level of government in all the countries.

14.13 LOCAL GOVERNMENT TAXES

Octroi, profession tax, Entry Tax, House Tax, Vacant Land Tax, Entertainment Tax, etc taxes are imposed by the local governments in several countries in order to mobilize financial resources.

14.14 SUMMARY

So far we have learnt the direct taxes, indirect taxes, their comparative importance, merits and demerits, the role of direct and indirect taxes in developed and developing countries, some important direct and indirect taxes including the local government taxes. It is noted that these taxes are complementaries in any country. It is necessary to adopt a rational mix of these two types of taxes in any tax structure in any country.

14.15 CHECK YOUR PROGRESS

I. Explain the following questions in about 4 or 5 lines each.

1. Define a direct Tax.
2. Explain the merits of direct Taxes.
3. What do you mean by Indirect Taxes.
4. Explain the merits of Indirect Taxes.
5. Explain the demits of direct Taxes.
6. Explain the demenits of indirected taxes.

II. Explain the following concepts.

a) Individual Income Tax
b) Corporation Tax
c) Expenditure Tax
d) Sales Tax
e) Excise Tax
f) Customs Tax
g) Service Tax
h) Value Added Tax
i) Local Government Tax

14.16 GLOSSARY

Direct Tax : Those taxes the burden of which can not be transtend as director tax. It includes income tax, corporation tax.

Indirect Tax : Those taxes the burden of which can be frams fined as indirect taxes. They include expenditure tax, sales tax.

Cooperation Tax : Tax on incomes of the company is known as corporation tax.

Expenditure Tax : Tax an the expenditure of the family or individual is known as expenditure tax.

Sales Tax : Tax imposed on sales or purchase of the goods and semices are known sales tax.

Excise Duty : This is a tax imposed on the goods at the tome production stage which are meant for sale or consumption.

Customers Tax	:	It taxes are imposed or goods imported or exported. They are known as customes tax. The customs taxes are divided into two kinds. One import duty is one when the government imposed duty or tax on import duty while Export duty is one when government. Imposed duty or tax on exports.
Service Tax	:	Taxes are imposed by the Central Governments on certain services since 1994-95 rendered to the customers.
Value added Tax	:	This tax is imposed at various stages on the value added instead of the gross value of the product. It can be assessed by deducting the value of inputs used or purchased pam often establishment from the gross value of the product.
Local Government Taxes	:	These taxes are imposed by local governments in order to mobilize financial resources. They include octroi, profession tax, entertainment taxes.

14.17 MODEL EXAMINATION QUESTIONS

I. Answer the following questions in about 30 lines each.

1. Define direct and indirect taxes.
2. Analyse the merits and demerits of direct taxes.
3. Explain why indirect taxes are more favoured in the developing economics.
4. Explain the comparative advantages of direct and indirect taxes.

II. Answer the following questions in about 15 lines each.

1. Explain the advantages of direct taxes.
2. Discuss the demerits of indirect taxes.
3. Explain one direct tax and an indirect tax.

14.18 SUGGESTED BOOKS

1. B.P. Tyagi : **Public Finance.**

2. Hufh Dalton : **Public Finance**

3. H.L.Bhatia : **Principles of Public Finance**

- Prof. R. Sudarsana Rao

UNIT – 15 : PROGRESSIVE AND PROPORTIONAL TAXATION

Contents

15.0 OBJECTIVES

The purpose of this unit is to explain the meaning of progressive, proportional and regressive taxes, the types of the tax structure.

After reading this unit, you will able be to;

- understand the advantages and disadvantages of the progressive taxes,
- understand advantages and disadvantages of proportional taxes,
- explain the regressive taxes,
- explain the degressive taxes.

15.1 INTRODUCTION

We have already know that a tax is a compulsory contribution paid to the government by individuals without a direct return. Taxes are divided into different categories on the basis of tax rates like they are divided as direct and indirect taxes. Several economists accepted the ability-to-pay theory as the basis for imposing taxes. It must be noted that the tax rate at which a tax is to be imposed is equally important like the tax base. Because a tax is not acceptable nor just unless proper rate schedule is adopted even though the tax base is reasonable. Therefore, taxes are divided in the following way on the basis of rate schedule.

1. Proportional Taxation
2. Progressive Taxation
3. Regressive Taxation
4. Degressive Taxation

15.2 PROGRESSIVE, PROPORTIONAL, REGRESSIVE AND DEGRESSIVE TAXES

If the tax rate increases as the tax base increase, it is called progressive tax while the tax rate is constant as the tax base increases is known as proportional taxation. Regressive tax means the tax rate declines as the tax base increase. If the progressively declines or becomes constant after certain level of the tax base as the base increase or becomes broader is known as degressive tax. These tax systems are explained elaborately in the following sections.

15.2.1 PROPORTIONAL TAXATION

Under this type of taxation, the tax rate is constant as the tax base increases as explained above. The following table – 15.1 and the diagram explain the proportional tax structure.

Table 15.1 : Proportional Tax

Tax Base (Rs)	Tax Rate (Percentage)	Amount of Tax (Rs)
10,000	10	1000
20,000	10	2000
30,000	10	3000
40,000	10	4000

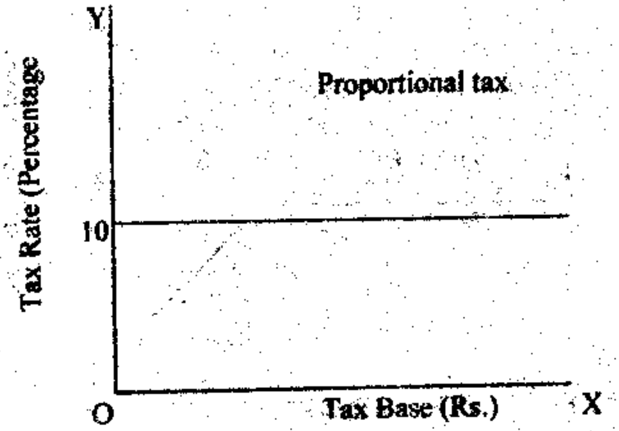


Figure – 15.1

15.2.2 PROGRESSIVE TAXATION

As explained above, if the tax rate increase as the base increase, it is called as the progressive taxation. The following table --2 and the diagram 10.2 explain the progressive taxation.

Table 15.2: Progressive Taxation

Tax Base (Rs)	Tax Rate (Percentage)	Amount of Tax (Rs)
10,000	10	1000
20,000	15	3000
30,000	25	7500
40,000	40	1600

The table 15.2 indicates that the total tax revenue increases as the income and the tax rate increases. For example it may be noted that Rs.1000 is accrued when the tax rate is 10 per cent and the tax base is Rs.10,000. When the income base increases to Rs.40,000, the tax rate has increased to 40 per cent resulting in increases tax revenue. The same is evident in the following diagram.

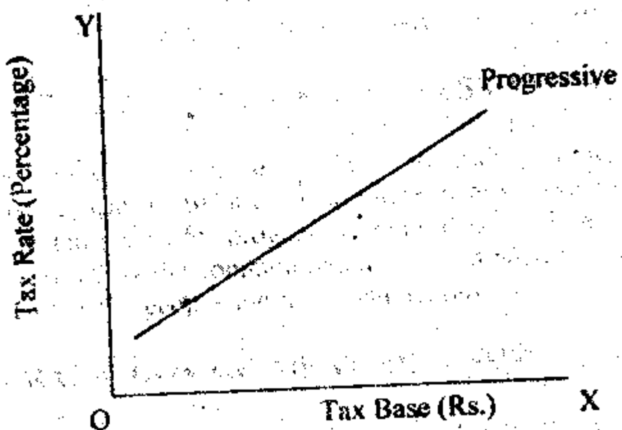


Figure – 15.2

15.2.3 REGRESSIVE TAXATION

It means the tax rate declines as the tax base increases. The same is explained with the following table and the figure.

Table - 15.3 : Regressive Taxation

Tax Base (Rs)	Tax Rate (Percentage)	Amount of Tax (Rs)
10,000	10	1000
20,000	07	1400
30,000	05	1500
40,000	04	1600

It may be seen from the table-15.3 that the tax rate is declining as the tax rate base increase. The same can be explained with the help of a diagram. It may be noted that the tax base is represented on the X-axis and the tax rate on the Y-axis. The curve explains a declining tax rate as the tax base increases.

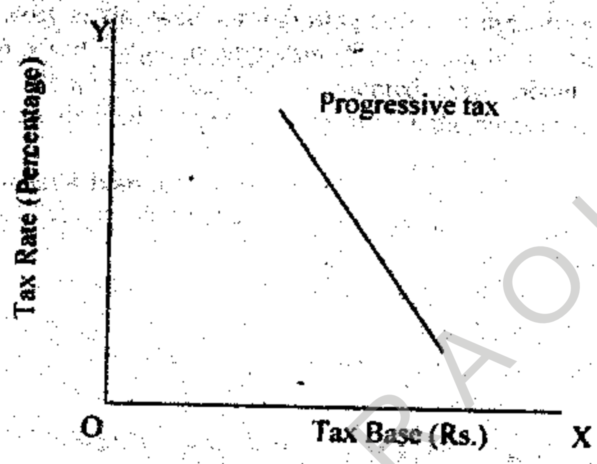


Figure – 15.3

15.2.4 DEGRESSIVE TAXATION

This tax structure is applicable to a few select taxes. Under this system, the tax rate is progressive until a particular level of the tax base and later becomes constant. The richer sections of the society do not make scarifies by paying taxes as expected of them under this tax structure. The same is explained in the following diagram

Table - 15.4 : Regressive Taxation

Tax Base (Rs)	Tax Rate (Percentage)	Amount of Tax (Rs)
10,000	10	1000
20,000	11	2200
30,000	12	3600
40,000	13	5200
50,000	13	6500

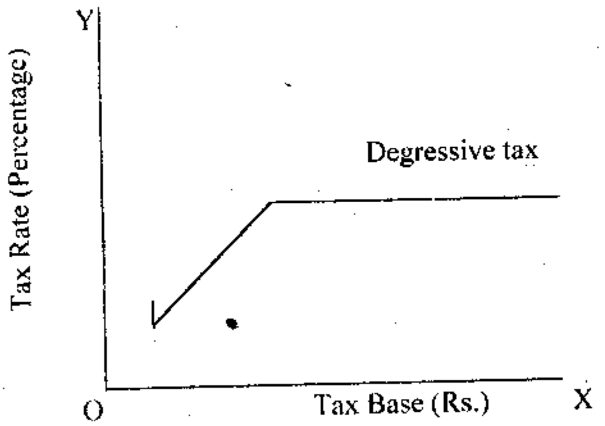


Figure – 15.4

In the above diagram –4, tax base is represented on the X-axis and the tax rate is represented on the Y-axis. It may be noted that a degressive tax is a combination of both progressive and proportional taxes as depicted in the above diagram.

Of the four types of taxes, progressive and proportional taxes are ore popular in the world nations. In general, all the direct taxes adopt progressive tax rates while proportional tax structure is based on the principle of equity and this is the reason why it has become more popular in the world. But the proportional taxation is advocated by economists like Mc Culloch and J.S. Mill. According to MC Culloch following progressive tax structure alone without proportional taxation is like voyage in the sea without a rudder and compass. According to J.S.Mill progressive taxation is not just and acceptable. Therefore, it is necessary to examine which type of tax structure is to be adopted. It may be viewed that type of tax structure which facilitates equitable distribution of tax burden on the basis of ability-to-pay principle is better. It may also be noted that both regressive and degressive tax structure are not commenced on the basis of equity considerations. So, there is no unanimity among economists whether progressive taxation or proportional taxation is better.

15.3 PROGRESSIVE TAXES- FOR ARGUMENTS

It is already stated that there is no unanimity of opinions among economists with regard to the adoption of proportional and progressive types of taxes. The choice in between these two types depends upon several factors like sacrifice rendered by the tax payers, tax base, the socio-economic factors and their influence on savings and investment. These factors are to be considered while analyzing the arguments for progressive and proportional tax structure.

15.3.1 ARGUMENTS IN FAVOUR OF PROGRESSIVE TAXATION

When the tax rate increases as the tax base increases is known as progressive type of tax. Personal Income tax can be given as an example of progressive tax structure. Philip E. Taylor strongly advocated a case for progressive type of tax. Moreover, this tax structure is also supported and justified by the common people also. It is pertinent to analyse the reasons for its acceptability among the people and the world nations.

15.3.2 EASY TO RAISE GOVERNMENT REVENUE

Of all the tax structures, progressive tax structure helps in raising necessary revenue to the government. It is the tax structure that raises the revenue of the government without disappointing the people when exists inequalities in the distribution of national income. Under this tax structure, government can get the needed revenue just by a small increases in the tax rate.

15.3.3 DIMINISHING MARGINAL UTILITY APPLIES

This tax structure is really based on the general economic principle of diminishing marginal utility where in a higher tax rate can be levied on the relatively richer sections of the society. In other words, if a tax is imposed in greater proportion than the rate of increase in income, it would be a tax imposed on the basis of ability to pay theory is just equitable. However, it is very difficult to measure and make inter-personal comparisons of marginal utility.

15.3.4 LOCEST AGGREGATE SCARIFICE

The Locest Aggregate Sacrifice theory supports the progressive type of tax. In fact, it is possible to follow the Locest Aggregate Sacrifice theory only by adopting a highly steep progressive tax structure. It is necessary to equalize the marginal utility schedules and this needs to adopt differential tax rates. The progressive taxation can be argued favourably by the principle of equal absolute sacrifice. But if the marginal rate becomes constant, there is no possibility of imposing progressive taxes. To explain more elaborately, the progressive tax structure is justified when the decline in the rate of marginal utility is more than the rate of increase of income. Here, not only a decline in the marginal utility is important but at which rate is declining is also important.

15.3.5 ECONOMIC STABILITY

Economic stability is one of the major objectives of Budget policy of a government. Progressive tax structure is conducive to achieve economic stability. Infact, the government can use the progressive tax structure, especially of Personal Income Tax, as a counter cycled and automatic fiscal stabilities. Progressive tax structure is necessary to regulate the purchasing power of the individual and to regulate inflation and deflation. To explain in more detail, the inflation can be controlled by controlling the aggregate demand by adjusting the tax rates (especially personal income tax and other direct taxes) of progressive taxes. Similarly the tax rates can be revised downwards so as to increase the Aggregate demand inorder to overcome the deflationary situation.

15.3.6 REDUCES INEQUALITIES

Economists like Adolph Eagner and J.C. Simons opined that progressive rate structure would be helpful in reducing the existing inequalities among different sections of the society. According Wagner the tax structure is very helpful as an effective instrument in reducing the inequalities of income and wealth resulted due to market forces and hereditary institutions. Simon felt that income and wealth inequalities are wretched and obnoxious and the moral and easthetic principles strongly support a progressive type of tax structure. In this way progressive tax structure can be favoured and commended as it reduces the existing inequalities of income and wealth.

15.3.7 TO REDUCE CONSPICUOUS CONSUMPTION

When taxes are imposed following progressive tax rates the savings would be increased by reducing conspicuous consumptions. It is believed that savings and investment will be encouraged in the developing economics by adopting a rate structure. In other words, due to progressive taxation, the consumption of conspicuous nature of the rich people is discouraged thereby increasing savings and investment.

15.3.8 MORE ELASTIC

Progressive tax structure is more elastic. The government can mobilize additional revenue by the raising the tax rates of the existing taxes without imposing additional tax burden on the poor people under this tax structure. Such a facility is not there in other forms of tax structures.

Fiscal Adequacy

The principle of fiscal adequacy is satisfied under this tax structure. The modern governments perform so many functions and they have been increasing over time. The government can mobilize the required resources under this system. Unless the government mobilize adequate revenues, it cannot discharge its duties relating to socio-economic and defensee sectors efficiently. We shall excusive the arguments of some economists in this can section.

Hobson's surplus argument

According to Hobson the individual's income can be divided as cost and surplus. He opines that a tax should be imposed on surplus income and the surplus element increases as the income increases. So taxes are to be imposed at the increasing tax rates. However, it is difficult to identify the exact surplus element in one's excess income. Moreover, several subjective issues are involved in this matter.

Seligman's Argument

Economist Seligman advocated the progressive types tax structure on the basis of faulty theory. According to him the productive powers and the utilities of the people increases as income and wealth increases. So the capabilities of increasing income will increase as the income and wealth increase. In other words, the rich could easily increase their incomes compared to the poor people. Therefore, the ability-to-pay the taxes of the rich people will be greater than the poor. So the rate of tax need to be higher on larger incomes and wealth.

Justification by Marshal and Pigou

Alfred Marshall and A.C. Pigou have strongly justified the progressive taxation. According to them financial resources are to be transferred from the relatively richer sections of the society to the relatively inequalities of income and wealth. Progressive taxation is a very good instrument for such transfer according to Marshal. Pigou felt that progressive taxation is inevitable for a revolutionary reduction of inequalities of income and wealth. According to him, government should confiscate incomes above certain level and exempt below some level. But too much progressively may lead to a reduction of savings, investment and capital accumulation. J.M. Keynes also felt that progressive taxation is necessary for achieving full employment level of income and output and also to reduce inequalities of income and wealth.

The merits, justification and arguments in favour of progressive taxation are explained above. There are also arguments against this type of tax. The demerits and disadvantages of progressive type of tax are explained below.

15.4 ARGUMENTS AGAINST PROGRESSIVE TAXATION

There are strong arguments against progressive taxation even though it is implemented in several countries and justified and advocated by several economists. Economists such as Henry Lutz, Hayek, J.S.Mill and Mc Culloch are important among those who opposed the progressive type of taxation. Lionel Robbins held the view that the very base chosen for imposing progressive taxation is defective and the taxation can not be justified on the basis of the principle of Diminishing Marginal Utility of Income even though the welfare of the community may increase due to redistribution of income and wealth. Therefore, it is necessary to know the arguments against progressive taxation.

15.4.1 DISCOURAGES SAVINGS, INVESTMENT AND PRODUCTION

Progressive taxes discourage savings, investment and production levels. Too much progressively may lead to a decline in willingness of the individuals to work hard, save and invest. Moreover, investment takes a flight to other countries where due to too much progressivity, especially of direct taxes. People prefer to work less when the government takes away their additional income by a system of high tax rates. So, as a result both production and productivity decline. Though these arguments may not be true absolutely, progressive taxes tend to cause ill effects to savings investments and capital accumulation.

15.4.2 DIFFICULT TO ADOPT RELATIONAL RATE STRUCTURE

The most important and delicate issue in the progressive taxation is to determine the rate structure that conforms the level of income. It has been argued that it is not proper and just to tax at a very high rate to incomes above certain level. J.S. Mill opined that when taxes are imposed with steep rates at higher levels of income they are totally unjustified. According to him, graduated taxation is graduated robbery. But in modern times several economists believed that the richer people should bear a relatively heavier burden of taxation.

15.4.3 PUNISHES SAVINGS, EFFICIENCY AND HARDWORK

People prefer to work due to progressive taxation because additional income attracts additional tax rates. If the government takes away the additional incomes by imposing higher rates of taxes, people do not prefer to work hard. So an economist like J.S.Mill felt that there should be an upper ceiling on the progressivity of rate structure,

15.4.4 DIFFICULT TO MEASURE THE MARGINAL UTILITY OF INCOME

It may be noted that the rate schedule is very important to progressive taxation. It is necessary to take into account the marginal utility of income while determining proper tax slabs. But it is very difficult to forecast it accurate. According to some economists the richer people should pay more.

15.4.5 SCOPE FOR TAX EVASION

It has been felt that tax evasion is widespread in those countries where tax rates are high. Both tax rate and the total tax revenue will increase as income and wealth increase. So tax evasion would be larger, in other words, willingness to evasion would be more among the people.

Progressive taxation is implemented in almost all the countries inspite of its theoretical and practical difficulties. This taxation is useful in reducing inequalities of income and wealth is useful as it is not productive of revenue elastic and just. The adoption impact on savings and investment and such other issues can be settled through administrative measures. However, this type of taxation cannot be adopted to all sorts of taxes. Several countries adopted this tax structure with regard to income tax, death duties, expenditure tax and wealth tax. The income tax is imposed on income above certain level in developing economies like India. Progressive taxation encourages tax evasion and becomes responsible for accumulation of black money.

The rampant tax evasion may be attributed to the steep tax rates with regard to income taxation. However, the governments can overcome these problems through an effective administrative machinery.

15.5 ARGUMENTS FOR PROPORTIONAL TAXATION

There are arguments for proportional taxation several economists have justified proportional taxation. These aspects are given below.

15.5.1 NO NEED FOR DIFFERENTIAL RATES

There is no need for slab system of tax rates as is necessary in the case of progressive taxation. Quantification of marginal utility of income is essential for adoption of differential tax rates and it is also necessary for progressive taxation. But this quantification of marginal utility of income is subjective and moreover interpersonal comparison of marginal utility is also not possible. It is not possible to quantify the marginal utility of income in an objective manner. so the proportional taxation is favoured to avoid the problems that come up due to progressive taxation. But this taxation does not take into account the applicability of the principle of diminishing marginal utility of income.

Easy to Administer

This taxation is simple both from the point of view of the tax payer as well as the government. The tax assessment, collection of tax etc. are very easy to administer by the government as well as easily understandable to the tax payers.

15.5.2 NO CHANGE IN THE RELATIVE POSITION OF TAX PAYERS

The relative position of incomes of the people is not changed by imposing taxes under proportional taxation. So the tax payers do not oppose the tax. In other words, there would not be any change in the relative position of the tax payers in the pre and post-tax situation. This may be noticed from the following table. It can be observed from the table – 15.4 that how the relative position of income of individuals is unchanged when a 5 per cent tax is imposed on individuals net incomes.

Table - 15.4: Relative position of tax payers

Income Before Tax (Rs)	Tax Payment (Rs)	Income After Tax (Rs)
100	5	95
1000	50	950
10000	500	9500
100000	5000	95000

It may be observed from the table that the proportion of income in both pre-tax and post-tax periods is 10 times. Therefore, proportional taxation does not change the relative demand and supply conditions and its impact on economic growth is unchanged. However, this tax may also have an impact on savings and utility of individuals both in real and relative terms.

15.5.3 NO SCOPE FOR DISCRIMINATION

Under progressive taxation the scope fro discrimination among individuals is more with regard to the adoption of slab system or rate schedule. Those problems do not arise under proportional taxation. The scope for unscientific adoption of rate structure is less because of the uniform rate.

15.5.4 DESIRE TO SAVE

The desire to save is reduced if the progression of tax rates is very steep. So the investment and capital accumulation is likely to be reduced. There will not be an adverse effect on savings or willingness to save due to the uniform tax rate and above due to the absence of confiscation of incomes above some level which is in practice under progressive taxation. But there may be adverse impact on savings if the tax rate two high in proportional tax structure also. So we cannot exactly say that proportional taxation does not influence savings and investment.

15.5.5 EASY TO MANAGE

Assessing the tax liability, tax collection and other administration is relatively easier under proportional taxation compared to progressive taxation. The proportional taxation satisfied the canon of simplicity and administrative economy. This tax is more favourable on these grounds to progressive taxation.

15.5.6 Mc CULLOCH OPINION

According to Mc Culloch, the tax payments to government should be in proportion to their respective incomes but not in progressive. He felt that depending exclusively on progressive taxation ignoring proportional taxation is something like sailing in the sea without a rubber and compass. The argument that taxes should be raised just to mobilize the required revenue but not for realizing other objectives also justifies the proportional taxation. But there are some arguments against the imposition of proportional taxes.

15.6 PROPORTIONAL TAXATION – AGAINST ARGUMENTS

It is argued that proportional taxation is against equity and social justice and imposes relatively more burden on the relatively poorer sections of the society. This is because the marginal utility of income diminishes and the uniform rate burdens more the poor people which is not justifiable.

It is not possible to mobilize required revenue resources as and when the government desires under proportional tax structure. It does not facilitate to get more revenues from the richer sections of the society. In other words, proportional taxation is neither elastic nor productive of revenue. So the government cannot raise adequate resources to meet its needs if it depends only on proportional taxation.

15.7 SUMMARY

We have learnt different opinions and arguments for and against progressive and proportional taxation. Economists justified the proportional taxation in the 19^{th} century while progressive tax has been supported during the 20^{th} century. But the most important problem is to adopt a rate structure that really correspond to the respective incomes of individuals. It may be noted that a policy of relational combination of both progressive and proportional taxation is good to the tax structure as well as the economy.

15.8 CHECK YOUR PROGRESS

I. Answer the following questions in about 4 or 5 lines each.

1. What do you mean by a progressive tax?
2. Explain the meaning of proportional tax?
3. Explain regressive tax diagrammatically?
4. Explain what is a degressive tax?

15.9 GLOSSARY

Progressive Tax : It is known if tax rate increases as the tax base increases.

Proportional Tax : Tax rate is constant as the tax base increases is known proportional tax.

Regressive Tax : Regressive tax means the tax rate declines as tax base increases.

Degressive Tax : If the progressively declines or becomes constant after contain level of the tax base as the base increases a becomes broader is known as degressive tax.

15.10 MODEL EXAMINATION QUESTIONS

I. Answer the following questions in about 30 lines each.

1. What is meant by progressive taxation? How do you justify its imposition?
2. What do you mean by proportional taxation? Explain how it is better than the progressive taxation?

II. Answer the following questions in about 15 lines each.

1. Explain regressive and degressive taxes?
2. Discuss the differences between progressive taxation and proportional taxation.

15.11 SUGGESTED BOOKS

1. Hugh Delton : **Principles of Pubic Finance**

2. B.P.Thyagi : **Public Finance**

3. Bhatia, H.L : **Public Finance**

- Prof. R. Sudarshan Rao

UNIT - 16 : VARIOUS THEORIES OF TAXATION

Contents

16.0 OBJECTIVES

The purpose of this unit is to discuss various theories, principles of taxation and their subjective and objective tests.

After reading the unit, you will be able to

- explain the benefit approaches of taxation;
- analyse the cost of service principle of taxation;
- discuss the ability to pay principle of taxation; and
- identify the subject and objective tests relating to ability to pay principle.

16.1 INTRODUCTION

In this unit we will learn about justice in taxation which deals with how the tax liability has to be determined? We know that a tax is a compulsory contribution made by the person to the government and there is no direct-quid-pro-quo. How the money burden of taxation is to be distributed. What principles should be followed to make the system more equitable? What is the relationship between the taxpayers and the government? Answers to the questions are found when we analyse various factors governing justice in taxation. There are many theories to explain as to how the tax burden is to be distributed. Broadly, we may explain theories as to how the tax burden is to be distributed. Broadly, we may study these theories namely 'the benefit theory of approach 'the cost of service' theory and the 'ability to pay' theory. The first theory links the tax liability to the benefits received by the tax payers from the goods and services supplied by the State. In the second theory, the tax liability is linked to the cost of providing the goods or services by the State. The third is the most important theory which links tax liability to the individual's capacity to pay tax.

16.2 EARLIER VIEWS : BENEFIT AND ABILITY TO PAY THEORIES

As rightly pointed out by Musgrave, views on the principles of taxation may be found in the writings of numeran authors, philosophers, economists and political thinkers right from the Middle ages to date. The duty to pay taxes or the preview to tax is among the most tangible of all links between subjects and sovereign.

Broadly we may study the theories namely. The Benefit theory or approach "The Cost of Service" theory and the "Ability to pay" theory. The first theory links the tax liability to the benefits received by the tax payers from the goods and services supplied by the State. In the second theory, the tax liability is linked to the cost of providing the goods or services by the State. The third is the most important theory which links tax liability to the individual's capacity to pay tax.

16.2.1 ARGUMENTS FOR AND AGAINST BENEFIT THEORY

During the 17th and 19th centuries, many economists and political thinkers thought that taxation, as a prize for the services rendered by the State was a natural complement to the Contract theory of State. According to the benefit theory, members of the society who receive various goods and services from the state activities should contribute in proportion to the benefits received by them. So, J.S. Mill thought that the relationship between the taxpayer and the State was on quid-pro-quo terms. If taxes are to be paid in proportion to the benefits derived from the state services, it means that this theory does not attach importance to the problem of bringing about equitable distribution of income and wealth. Similarly it ignores the problems of growth and stabilization by making use of the tax policy. It concentrates mainly on how "goods and services are supplied by the state and how they should be paid for by the members of the society who enjoy them".

16.2.2 IN TERMS OF PROTECTION-BENEFIT THEORY

Most of the earlier writers who supported the benefit principle argued in terms of protection. In other words, State provides protection to the life and property of the people. The general opinion was that the need for protection should be measured in proportion to income or wealth, which is protected by the state. Therefore, proportional taxation was favoured and the benefit principle was very much supported by them. Some writers like Roussea, Sismondi etc., did not subscribe to this view point. For instance, Roussea felt that the wealth would benefit more from protection than the poor. Similarly, Sismondi was of the opinion that the need for protection increases more rapidly than income and hence argues for progressive taxation.

16.2.3 MARGINAL UTILITY – BENEFIT THEORY

Some writers had taken 'marginal utility' concept to substantiate their argument in support of the benefit theory. For example, Mazzola opined that each consumer should be called upon to pay a price equal to the marginal utility that he personally derives from the Jenices rendered by the state.

Another economist Emile Sax made a distinction "personal collective wants" and "collective wants proper". It is clear that the principle of exclusion applies to the former but not to the latter. No individual can be deprived of having the benefit of the state services. So, according to Sax, a good proxy to measure the relative benefit received by an individual would be the proportional income tax. Similarly, Knut wicksell advocated that taxes should be imposed *on the basis of voluntary and unanimous action* of the individuals to have state services. If this view is implemented, the role of the tax system to bring about equitable distribution of income and wealth is ruled out. But to treat that state services should be consumed on the basis of voluntary demand is not correct in as much as there would not generally be equitable distribution of income in the economy. Similarly Erik Lindah also did not give importance to tax system to bring about equitable distribution of income in the economy. He supported the benefit theory *in terms of voluntary exchange* between the taxes paid and the state services received by the tax payers on the basis of their preferences.

16.2.4 DISTRIBUTION ASPECTS – ABILITY TO PAY THEORY

On the other hand, if we attach importance to the distribution aspects of the economy, we find that the ability to pay approach of taxation is more justified. This principle received a good deal of support from the socialist thinkers. Adam Smith in his cannon of equity gave more importance to the ability to pay concept of taxation. Modern welfare states have also attached much importance to the ability to pay approach of taxation.

16.2.5 APPROACHES TO TAXATION

All this discussion amply reveals that broadly there are two approaches to taxation, namely whether taxes should be imposed in proportion to the benefits received from the state activities or whether taxes have to be paid in accordance with the taxes payer's capacity or ability to pay. *If benefit approach's* taken, there is a quid-pro-quo relationship between the taxpayers and the state. Taxes would not be treated as compulsory payments. But if ability to pay approach is taken, taxes are to be considered as compulsory contributions to the public exchequer. In such a case, there is no quid-pro-quo element in taxation. We may now deal with the merits and demerits of those approaches.

16.3 BENEFITS PRINCIPLE OF TAXATION

As already discussed, this theory tells us that for the benefits conferred on the community through the various activities of the State, it is necessary and justified that the cost of government services are made good by the members of the society in proportion to the benefits received by them.

16.3.1 ADVANTAGES OF THE BENEFIT THEORY

The following are the merits of the benefit principle.

Firstly, the theory is based on the assumption that there is justification to tax those who have benefited from the public services.

Secondly, this theory gives importance to both the revenue and expenditure sides of the budget. When government provides certain goods and services, it involves the cost aspect of public expenditure side of the budget. When taxes are imposed on the community, it relates to public revenues of the budget. The benefit theory determines not only the public expenditure side but also the relative tax shares that should be paid by the tax payers. In other words benefit theory simultaneously determines both the public services as well as tax shares.

Thirdly, the benefit theory is favored on the ground that it helps efficient allocation of resources.

16.3.2 DISADVANTAGES OF THE PRINCIPLE

There are many demerits of the benefit theory. Some of them are now discussed.

At the out set, it may be seen that benefits derived individually cannot be accurately separated and measured. The functions of government are varied and complex. The community in general would be benefitted from the various activities performed by the government. It is very difficult and rather impossible, to calculate and assess the individual benefits so that each person should be called upon to contribute in proportion to the benefit received by him. So, there are many theoretical and practical difficulties to implement this principle.

Secondly, the quid-pro-quo relationship between the tax payer and the government has been subjected to much criticism. In the past, writers on Public Finance thought that the relationship between the tax payer and the government was analogous to the satisfaction of private wants. Taxes are treated just like prices. But many services provided by the government are meant to satisfy the collective wants. In modern days, state provides certain services for the welfare of the community in general but not for the welfare of an individual person. Therefore, a quid-pro-quo type of exchange relationship does not exist between the State and the individuals in respect of most of the public services.

Thirdly, as the benefits cannot be separated on individual basis, taxation should be taken as a collective instrument to finance the various activities performed by the government. So it is not possible to tax people in proportion to the benefits enjoyed by them.

Fourthly, the benefit approach sometimes gives peculiar results. For example, if everyone has to pay to the government according to the benefits received, take the case of a pensioner, the amount of pension granted by the government to a retired employee is definite sum which represents the benefit received by him. If he asked to pay a sum equal to the pension, by way of taxes; it is very ridiculous. So in practice we should not express that people are to pay taxes proportionate to the benefits received.

Fifthly, if we follow the benefit approach, the burden of tax on the poor would be much more than the rich. In a welfare state, most of the public revenues are meant to benefit to the poor rather than the rich. Some public services may be common to all where the exclusion principle would not be applicable. If the poor are called upon to pay taxes in proportion to the benefits enjoyed by them, it leads to regression, in the other words, the benefit theory which supports proportional taxation is regressive in nature. J.S. Mill rejected the benefit theory because it would lead to regressive taxation.

Sixthly, as already stated, this principle does not attach importance to the problems of distribution and stabilization. In modern days, distribution and stabilization aspect are very essential to be looked upon in the development planning point of view.

Finally, it may be seen that the benefit theory has very limited application. When a special or direct service is provided by the State, it may be possible to calculate the individual benefits and people can be asked to pay taxes in proportion to the benefits received by them. A direct service provided by the government should be run on commercial lines, if at all the benefit principle could be made applicable. But most of the activities of a welfare state are not performed on commercial lines. So, to treat all taxes in the economy on the basis of the benefit principle is illogical.

From the criticism it is clear that the benefit theory cannot be put into practice as it is not possible to calculate individual benefit shares arising out of Public services provided by the State.

16.4 COST OF SERVICE PRINCIPLE OF TAXATION

This principle is closely associated with the benefit theory. While in the benefit theory, taxes should be paid in proportion to the individual benefits derived from the various state services, the cost of service theory attaches importance to the cost of rendering the service to the tax payers. The state is considered just like seller in the market. The cost of the goods or service supplied by the State should be realized by way of taxation from those people who utilize the same. According to this theory the citizens are not entitled to any benefits from the State. If at all anybody receives a benefit, he should pay its cost. The theory does not attach importance to the protective and welfare functions of the State. Nor does it concern with the problems of income distribution. The theory implies a balanced budget policy. If this theory is implemented, quite a few sources of public revenue do not find place in taxation. For example taxes on windfall gains, capital gains, unearned investments, inheritance and gifts etc. As the individual has to pay the cost of the service supported by the State, this theory rules out all softs of welfare activities also.

Just like the benefit theory, even the cost of service principle also cannot be actually put into practice, the problem of measuring the cost of state services and assigning them to various beneficiaries is a very difficult task.

State may be supplying quite a few services to which the exclusion principle cannot be applied as in the case of Private goods. All the members of the society are entitled to benefit from the State services. In other words, one cannot be denied a share in the consumption of public goods and therefore the cost of service cannot be appointed between different members of the society.

Another objection to the cost-of-service approach is that it is not possible to calculate the cost with enough conceptual clarity. For example, if the resources are used inefficiently, the cost of the service provided by the State would naturally be higher. It is not justified that the consumers be asked to pay by way of taxes even for the inefficiency in production.

Similarly, this theory is inadequate to explain the problem of externalities there would be social benefits and social costs on account of externalities this theory is applicable if the state confines itself to only the commercial costs just like the private entrepreneurs. But this view is not correct. While determining the tax liability, the State is supposed to estimate the net social cost.

Finally a very serious question concerning this theory is as to what extent and nature the state services are to be provided. It is not proper to think that the state itself it decides what services are to be provided to the citizens who would be called upon to pay for them. How to ascertain the preferences of the citizens for the state service? There are many practical difficulties in ascertaining the true preferences of the people for the state services.

Although the aforesaid draw backs are there in theory, yet it may be useful in some limited number of cases. Where a service is specially provided, it is possible for the State to recover its cost from its beneficiaries. For instance the charges for water supply, railways etc., but by and large this principles is inappropriate to determine justice in taxation. Many services like free education or medical aid for the poor cannot be explained on the basis of this theory. Also, it may be noted that this principle goes against the very definition of a tax, as we know that a tax is compulsory payment without quid pro-quo. This principle is not in accordance with the character of tax, viz., and quid-pro-quo. But according to this theory, the payment of tax is in return of the cost of the service.

16.5 PRINCIPLE OF ABILITY TO PAY OF TAXATION

16.5.1 THE PRINCIPLE

Un like the benefit theory or the cost-of service theory, this approach is completely in accordance with the definition of tax. The theory does not assume any quid-pro-quo relationship between the citizens and the state. In other words, there is no any commercial or semi commercial relationship between the state and the citizens. It is the collective responsibility of the citizens to pay taxes to government without direct quid-pro-quo. The ability to pay doctrine items from the idea that the burden of taxation should be shared among the members of the society so as to uphold the principle of justice and equity. This theory tells us that taxes should the principle of justice and equity. This theory tells us that taxes should be levied according to the ability of the tax payers. Adam Smith embodied this principle while explaining this canon of equity, which states the subjects of every state, ought to contribute towards the support of the government as much as possible according to their respective abilities.

As rightly opined by Musgrave and Musgrave the application of the benefit principle was very much limited to certain specific government function sonly and therefore, was not useful to explain the general problem of tax structure. The re-distributive function of the tax payers process could not be explained by the benefit theory. So, in order to achieve equitable taxation, people should contribute to the cost of government in proportion to their respective abilities to pay.

16.5.2 MERITS

The proponents ability to pay principle of taxation advance their arguments on the following points:

Firstly, ability to pay approach has been supported in the terms of what is known as 'sacrifice interpretation of ability'. As the concept of sacrifice being subjective, different formulations have been suggested to measure one's ability in terms of sacrifice. Broadly, there are three interpretations of sacrifice, namely (i) Equal sacrifice, (ii) proportional sacrifice and (iii) minimum sacrifice (this is also known as the principle of marginal sacrifice). In sacrifice terms the rich are justified to bear more burden of taxation.

Secondly, this principle is justified on the basis of admonishing marginal utility as applied to income. When we move up the income scale, the utility of marginal income is assumed to be declining. So, it is justified that the rich should bear tax burden more proportionately than the poor.

Thirdly, the ability to pay principle of often justified on the basis of what is known as "Faculty". After meeting certain basic needs, more resources as left at the disposal of a rich man compared to that of a poor man. So it is justified that the rich should bear grater burden of taxation rather the poor.

16.5.3 CRITICISM

A careful look at above three grounds, advanced in support of "ability to pay" principle amply reveals that they are, strictly speaking, not realistic. The main difficulty is on account of the very nature that sacrifice or marginal utility of income being subjectively.

16.6 ABILITY TO PAY AND SUBJECTIVE TESTS

Since the time of J.S Mill, the ability to pay principle has been viewed in terms of equal sacrifice. On the assumption that the income utility schedule is the same for all tax payers, it is justified that people with equal income i.e., equal ability to pay should contribute equal amounts of tax. While understanding the principle of equity, there are two situations namely horizontal and vertical equity which we should know. Equal taxes for people in equal positions is referred to as "Horizontal equity" while unequal taxes for people with unequal incomes is referred as "Vertical equity". Of the two, Horizontal equity is less controversial. If equality is to be interpreted not in terms of equal loss of income but in terms of equal loss of utility, then equal treatment calls for unequal taxes for unequal incomes. Horizontal equity is met if we make two important assumptions, namely (a) that income utility is measurable in cardinal terms and (b) that the income utility schedule is the same for all people. But how about meeting the requirements of vertical equity? The answer to his question depends on both the shape of the income utility schedule and by what role "equity of sacrifice" is defined. As stated already, equal sacrifice can be interpreted in terms of (i) equal absolute sacrifice (ii) equal proportional sacrifice and (iii) equal marginal sacrifice. According to Dalton there is a fourth possible interpretation of equality of sacrifice. He calls it as "constant equality of incomes". It means that the relative income position among tax payers should remain the same before and after payment of tax. The most ticklish aspect is how to measure the marginal utility of income when the income of the tax payer changes. Still more difficult is to make interpersonal comparisons of marginal utility of income. Although there is no consensus in respect of measurement of marginal utility of income the assumption of similarity of income-utility schedules among the tax payers has been accepted to analyse the different interpretations of equal sacrifice. We now discuss the above three interpretation of sacrifice.

16.6.1 EQUAL ABSOLUTE SACRIFICE

This interpretation of sacrifice tells us that the loss of utility is the same among different tax payers. If this doctrine is applied, each member of the society will have to pay some amount towards tax and nobody would be exempted. However the amount of tax varies among the tax payers with different incomes since the marginal utility of income depends upon the income level. For instance, let us suppose that there are two tax payers with different incomes. The person with more income pays more tax while the person with less income pays less tax. But the sacrifice or loss of utility would be the same to both as a result of the tax.

16.6.2 EQUAL PROPORTIONAL SACRIFICE

It means that the loss of utility as a result of a tax should be proportional to the total income of tax payers. In this principle, the ration of sacrifice of each tax payers to his total income should be one and same among all the tax payers. Although people with higher incomes would pay more amounts towards tax, the ration sacrifice to the total income would be same for all. The principle of equal proportional sacrifice can be shown as follows:

Let us suppose that satisfaction is measured in terms of income possessed by different individuals, say, AB etc.,

$$\frac{\text{Sacrifice of tax payer}}{\text{Income of A}} = \frac{\text{Sacrifice of tax payer}}{\text{Income of B}}$$

It is clear from the above formula that each tax payer under this principle undergoes sacrifice equal to the same percentage of his total satisfaction. What would be the rate structure of equal proportional sacrifice principle is adopted? If the marginal utility of income remains constant this principle would lead to a proportional taxation. But if the marginal utility of income falls, it is necessary to know these relative percentage shifts in the marginal and average utilities. If the rate of fall of both marginal and average utilities is the same, then proportional tax would satisfy this principle. If on the other hand, the marginal utility of income falls at a faster rate than its average utility, progressive taxation is called for to satisfy this objective. Similarly if the marginal utility of the income falls as a smaller rate than its average utility, regressive taxation would be necessary to fulfill this principle.

16.6.3 EQUAL MARGINAL SACRIFICE OR THE LEAST AGGREGATE SACRIFICE

Another interpretation of the equity is given by the equal marginal sacrifice. This means that the tax burden should be borne in such a manner that the marginal sacrifice of each tax payer would be the same. This principle is given importance in the welfare point of view. If marginal sacrifice is equal among the tax payers the total sacrifice of the community would be the least of minimum.

actually bearing its money burden as such. Hence, it is necessary to know who bears the immediate burden of a tax and who bears the ultimate burden of the tax. The problem of determining the ultimate burden of a tax is the problem of determining the incidence of the tax

When Government imposes a tax, it is paid by the person or the economic unit which is bound to do so. Every tax reduces the disposable income of the tax paying unit. So, if there is any possibility, the tax payer tries to shift the tax burden to others. In practices every economic unit may be involved in innumerable economic transactions. So, there is always a tendency for the tax payer not to bear its burden. In this context certain terms have been coined so as to understand how the tax paid by the tax paying unit impossible of being shifted. Broadly, there are three such terms – (1) the Impact of tax (2) the incidence of tax and (3) the shifting of tax. We may now try to understand these terms.

17.2 THE IMPACT OF TAX

When Government imposes a tax, the money burden of it is borne in the first instance by the person (or tax paying unit) who is legally bound to pay the amount of tax to the government. This is called the impact of tax. In other words, the legal responsibility is on that person. This represents only the money burden. For example, the union excise duties in India are paid by the manufacturer of the product on which the Government imposes the duty. But obviously it is not the final resting place of the tax. The manufacturer who paid the union excise duty always tries to shift the burden to others. So in the chain of transactions we may notice that the duty is passed on from manufacture to wholesaler and then to retailer but finally to consumer who pruchases the product. Therefore, although the manufacturer paid the amount of tax at the first instance as he is legally bound to do so, he did not ultimately bear the burden of it. Sometimes it may not be possible for the tax paying unit to pass on the burden to others. Sometimes would it be possible only to partially shift the burden to others?

17.3 THE INCIDENCE OF TAX

While the impact of tax is on a person who pays it in the first instance, the term 'incidence' refers to the ultimate burden of a tax. The incidence is on a person or group of persons who bear the ultimate burden of the tax. According to Seligman incidence is defined as "the settlement of the tax burden on the ultimate tax payer". In others words it is the final resting place of the tax. The person who bears the incidence cannot shift the burden any further. In the words of Musgrave 'the term incidence' as commonly used refers to the location of the ultimate or the direct money burden of the tax as such. It is said to occur when a particular price of the tax comes to rest with final payee'.

17.4 SHIFTING OF TAX

The process of transferring the money burden of a tax is called 'shifting'. It refers to the various process by which the direct money burden on account of tax is passes on through price adjournments or (cost adjustment) from the point of impact to the final resting place. The process of shifting goes on continuing till the incidence of the tax is reached. It may be noted that shifting of the money burden is legal where as tax evasion is illegal. Shifting is normally done by suitable price adjustments. The tax is included in the price of the commodity. It is passed on from the manufacturer to the wholesaler and then to retailer and finally to the consumer. Sometimes, it is also possible to shift the burden by making suitable adjustments of the prices paid to the factors of production. Similarly, sometimes if the price of the goods on which tax is imposed remains the same, shifting may still take place in the form of change in the quality of the good.

17.4.1 FORWARD SHIFTING OF TAX

As stated earlier, price of the commodity normally constitutes the vehicle for shifting the direct money burden of a tax. Assuming that all other factors in the process of shifting remain unchanged, if a tax is completely shifted, the price of the taxed commodity would be higher by the amount of the tax. If the tax is shifted from manufacturer to wholesaler and then to retailer and finally to consumer, it is known as 'forward shifting'. Price of the commodity is increased in the case of forward shifting. Some times complete shifting of the tax is possible. Some times partial shifting may take place. There may be occasions also when it would not be possible for the tax paying unit to shift the money burden to others. In such a case, there is no shifting. The impact and incidence would be on one and the same tax paying unit.

17.4.2 BACKWARD SHIFTING OF TAX

If the price paid to the factors of production is affected due to shifting of a tax, it is known as 'Backward Shifting'. In other words, the price of the commodity would remain the same even after imposition of tax as far as the consumers are concerned. But the remuneration of prices paid to the various factors of production, which have been made use of in the making of the good will, is less. An example makes this point clear. Let us suppose that the supply of raw material to an industry is inelastic. It means, the supply cannot be reduced even if the industry reduces the price of the raw material. So, when a tax is imposed on the industry, it is possible to shift it backwards by reducing the prices of the raw material. On the other hand, if the supply of the raw material is elastic, it is not possible for the manufacturer to shift the money burden of the tax backwards. Similarly, in a locality let us suppose there is inelastic supply of labour. The manufacturer can shift the tax to the labourers by reducing their wage. We, however assume that other factors (like the trade union's pressure etc.) do not influence the process of shifting of the tax.

17.4.3 TAX CAPITALIZATION

One special type of backward shifting of tax is often attributed to what is known as 'tax capitalization' when certain permanent assets yielding certain percentage of their value as annual income are sold, the buyers will calculate the future burden of the tax and try to shift the entire or part of the burden backward to the sellers. The person who desires to purchase such durable assets pays a lower price at the time of purchase itself. He will discount the value of property or security by capitalization of tax in order to escape from the payment of tax. An example of tax capitalization is follows.

Suppose a land is valued at Rs. 1,000/- and it yields an annual income of Rs.50/-. Let us also suppose that there is a specific tax of Rs. 10/- on it per annum. The owner of the land would be getting a net income of Rs. 40/- per annum. It can be seen that without tax the land yields an income of 5 per cent of its value. If the buyer desires to maintain a 5 per cent return on value of the property which he proposes to purchase even after payment of the tax, he would be willing to take the land for Rs. 800/- only. In others words, a 5 per cent return on Rs. 800/- would be Rs. 40/- per annum. Although the asset value is at Rs. 1,000/-, the buyer would be escaping from the future tax payments, if he gets the same at Rs. 800/- in other words a lumsum of Rs. 200/- is reduced which represents the entire money burden of the tax. It may, however be noted that tax capitalization is possible under certain conditions only. The value of

The equal marginal sacrifice principle is more attributed as an efficiency rule rather than an equity rule. Edgeworth and Pigou supported this principle so that the loss of welfare for the community as a whole is minimized.

16.6.4 CONCLUDING REMARKS

In this context it is more appropriate to interpret the three versions of sacrifice in the words of Dalton. "According to the principles of equal sacrifice, the direct money burden of taxation should be so distributed that the direct real burden on all tax payers is equal: (i) according to the principle of proportional sacrifice the direct real burden on every tax payers is proportionate to the economic welfare which he derives from his income: (ii) according to the principle of minimum sacrifice; total direct burden on the tax payers as a whole is as small as possible'.

Of the all three types of sacrifice, the principle of equi marginal sacrifice has been widely accepted. In this context, it is very essential for us to remember that 'sacrifice' itself is a subjective concept and we are not sure of estimating correctly the shape of the marginal utility of income curve. Ability to pay, expressed in terms of sacrifice is not free from arbitrariness and ambiguity. So the need to state the ability to pay in terms of certain objective criteria arises.

16.7 ABILITY TO PAY AND OBJECTIVE TESTS

What is the right index of ability to pay? In older days the term 'ability' or faculty in the Elizabettan Poor law referred to 'property'. So the persons who possess more property are supposed to have more ability to pay. But in course of time as the society advanced, the emphasis has been shifted from property to income. Adam smith formulated his cannon of ability in terms of income. In recent times, some economists have advocated consumption as an index of one's ability to pay.

We shall now examine the implication of each one them.

16.7.1 PROPERTY

If property is taken as the basis of one's ability to pay, there are some weaknesses. Although a person may be earning substantial income, he may not possess property. He may not come under the property taxation. Some properties may be yielding current income. For instance the ability to pay of a man with an annual income of Rs. 10 lakhs is much more than that of window who possess a house but not earning any current income at all, so, property sometimes may not present one's ability to pay.

16.7.2 INCOME

Income is regarded as a fair test of ability to pay in modern times. Therefore, many economists favoured progressive taxation of income so that the rich may contribute more to the exchequer by way of taxes rather than the poor. By considering income as index of one's ability to pay, there is possibility of including income from all sources. In other words income from salaries, property, investment, shares and debentures etc., could be taxed. But according to some thinkers income cannot always represent a fair test of ability to pay. So, what are the reasons?

i) It is necessary to differentiate between earned and unearned incomes. It is necessary for us to know whether the income is obtained from the property or from one's personal effort. The former should be taxed at a higher rate rather than the latter type of income in order to make taxation more equitable.

ii) The family circumstances also have to be taken care of. A family may earn more income but the number of depends also may be quite large. So, a bachelor may be taxed at a higher rate than a married person with a number of children.

iii) All income should not be taxed. It is necessary to have minimum exemption limit which should be determined by the current standard living of the community.

iv) The principle of progression is normally applied if income is taken as the basis of taxation. But we know that there is very much arbitrariness in the formulation of rate structure of progressive taxation.

Despite these limitations, income is regarded as the best index of 'ability to pay' for the purposes of taxation in many countries in the world.

16.7.3 EXPENDITURE

More recently, Prof. Kaldor, an eminent economist, favoured expenditure as the basis of taxation. According to him income as the test of ability of pay is defective. He feels that one's spending power is the true index of ability to pay. As income tax is not imposed on the basis of one's true ability to pay and as it leads to corruption and tax evasion etc., he feels that income should not be taken as the basis of taxation. Income tax adversely affects incentives to work and save and thus discourage private capital formation. So, Kaldor favoured consumption as the basis of taxation.

But some economists feel that to take consumption, as one's ability to pay is not correct. Taxes on consumption hit the poor more than the rich. They are generally regressive taxes. A person may be spending more due to his family circumstances although his income may be low. So to conclude that he has a greater capacity to pay taxes is not correct.

16.8 SUMMARY

We have seen that three objective tests to represent one's ability to pay are not free from defects. Therefore the right way is to have tax system which gives representation of various taxes imposed on property, income and consumption. In such a case it is possible to attain near approximation of satisfying the principle of equity in taxation. Therefore, modern tax system includes taxes on income, property and consumption. It may be noted that the burden of taxation should be judged taking the system as a whole but not on the basis of individual. Some taxes may not confirm to the principle of equity. But the inequity of one tax can be got corrected by the equity of some other taxes. Different people have different ideas regarding what constitute equity in taxation. It is concept, which is very difficult to put into practice. Therefore Dalton is right when he says, "Equity is an elusive mistress whom perhaps it is only worth the while of philosophers to pursue ardently and or politicians to watch Wally".

16.9 CHECK YOUR PROGRESS

I. Answer the following questions in about 4 or 5 lines each.

1. **What is the principle of cost of service of taxation?**
2. **What is the benefit approach of taxation.**

UNIT – 17 : IMPACT AND INCIDENCE OF TAXATION-METHODS OF MEASUREMENT

Contents

17.0 OBJECTIVES

The purpose of this unit is to explain different concepts relating to impact, incidence and shifting of taxation and also analyse different theories pertaining to the measurement of incidence.

After reading the unit, you will be able to:

- identify the concepts of impact, incidence, shifting, tax capitalization and double taxation,
- explain the theories of incidence of taxation;
- analyse graphically the demand supply theory;
- discuss the incidence of few particular taxes.

17.1 INTRODUCTION

The burden of a tax does not always lie on the person from whom it is collected. In many cases it is borne by other people also. Thus, the person who initially pays the tax may not be

3. What do you mean by ability to pay?
4. Interprete one of the equal sacrifices.

16.10 GLOSSARY

Cost of service principle of taxation : It is refered as the cost of rendering the services to the Tax payer. For example state is considered as seller of services in the market. The cost of good and services supplied by the state are to be realized by way of taxation from the people who utilizes the same.

Benefit principle of taxation : The principle that the cost of services are made good by the members of the society in proportion to the benefits received by the people.

Ability to pay approach : A n approach that tells that all taxes should be levied according to the ability of tax payers.

16.11 MODEL EXAMINATION QUESTIONS

I. Answer the following questions in about 30 lines each

1. Critically examine the benefit principle of taxation.
2. Describe the principle of ability to pay.
3. Analyse the subjective and objective tests of the principle of ability to pay.

II. Answer the following questions in about 15 lines each

1. Explain, the brief the two approaches of taxation.
2. Discuss the cost of service principle of taxation.
3. Explain the concept of "Equity of Sacrifice".
4. What are the three objective tests of 'ability to pay' theory.

16.12 SUGGESTED BOOKS

1. B.P. Thyagi : **Public Finance**
2. Huge Dalton : **Principle of Public Finance**
3. H.L Bhatia : **Public Finance**
4. Musgrave : **Theory of Public Finance**

- Prof. Md. Iqbal Ali

the asset as well as the annual income form it should be stable. The buyer should have alternative avenues of investment. Capitalization is possible in such of those cases where property has both capital value as well as annual income.

17.5 THEORIES OF INCIDENCE OF TAXATION

These theories can be classified into classical theories and modern theories. Concentration theory and diffusion theory are part of classical theory and demand supply theory pertains to modern theory.

17.5.1 THE CONCENTRATION THEORY

According to Physiocrats, a school of French thinkers in the 19th century all taxation except on rent was necessarily shifted. They believed that agriculture was the only productive occupation and all other occupations were sterile and unproductive. So, all the non-agricultural occupations do not produce a surplus. They favoured a single tax on land and did not favour any tax on the other occupations., They thought that even if some other taxes are imposed on non-agriculturist they would necessarily shift the same ultimately to the agriculturists. It is because, no surplus is generated with the non-agriculturists. This view of the physiocrats cannot be taken as correct. Surpluses could be generated in occupations other than agriculture also. In modern days, as we have already seen in the canons of taxation, that single tax system is not favoured. But the thinking of Physiocrats makes a point clear in that if surplus is not generated, the money burden of the tax cannot be borned and tax paying unit tries to paid ways and means in order to pass on the burden to others. In their view all taxes are shifted and get concentrated on agricultural rent.

According to the classical economists, surpluses generated in the economy one of two types namely rent and profit. Land rent arises, according to Ricardian theory, due to the operation of law of diminishing returns in agriculture and Malthusian theory of population. Now if a tax is cost of subsistence of the workers. Consequently, wages would have to increase, which means profits would decline. Agricultural rent would not be affected as the land lords would pay the tax out of higher sale proceeds collected by them though higher agricultural prices. So, the incidence is on profits. But what will happen if a tax is imposed on wages? Even then also, the incidence would be on the profits but not on the rents. Additional money wages have to be paid to the workers to maintain a given real subsistence. If a tax is imposed on the profits itself, it is not possible to shift the same by lowering wages which are already at subsistence level. But if a tax is imposed on agricultural rent itself, the landlords will have to bear it and there is no possibility of its being shifted to others as rent does not form part of the cost of production (according to classical economists).

The concentration theory could not provide a satisfactory explanation to the problem of incidence of taxes.

17.5.2 THE DIFFUSION THEORY

According to this theory, the incidence of taxation is diffused in the economic system. As there is interdependence of various economic units, a tax imposed at one place could be shifted many times in such a manner that it becomes very difficult to locate the ultimate resting place of it. So, the supporters of the theory like Mansfield and Canard argued that it was not possible to investigate the ultimate incidence of a tax. They believed that every tax was shifted and reshifted till the burden get eventually distributed over the whole society equitably. To put in the words of Mansfield, *"a tax is like a stone falling into alake and making a circle, till one circle produces and given motion to dn other and the whole circumference is agitated from the center"*. This theory has been criticized by many economists. According to Dalton, the diffusion theory simply runs away from the basic problem of ascertaining the incidence and the effects of a tax. Although in respect of some taxes, it is very difficult to estimate both the incidence as well as the effects, it is not correct to view that they are diffused equitably in the whole of the economy. Diffusion theory assumes perfect competition and perfect mobility of the factors of production from one employment to another without cost differences. In practice the situation is, however, different. Markets are seldom adequately competitive. Also, factor motilities are restricted by more than one reason. Musgrave also did not subscribe to the views of the diffusion theory. The assumption of the diffusion theory that all taxes enter into cost of production and are thus diffused is not correct. There are certain taxes like those imposed on prope.ty, interest and wages do not always form part of production. Diffusion theory has, therefore, been discarded.

17.5.3 DEMAND SUPPLY THEORY

This theory can be stated to be the modern theory of incidence of taxation. According to this theory, incidence of tax resembles the determination of value which is influenced by the demand and supply forces in market. We have already seen that shifting can take place through price transactions. And price transactions are obviously determined by the market forces of demand and supply. In other words, factors which influence the market situation also influence the process of tax shifting. Certain factors like the conditions of the market, mobility of factors of production, the elasticity of supply and demand etc. often influence tax-shifting.

17.6 DEMAND SUPPLY THEORY OF INCIDENCE OF TAXATION

At the outset, it may be stated that when a tax is imposed, the price of the commodity increases. If the price of the commodity increases by the full amount of tax, the incidence is wholly on the consumer. If the price does not rise at all, this incidence is wholly on the producer (or seller). If on the other hand, price has increased less than the full amount of the tax, the incidence is shared between the sellers and buyers. Elasticity of demand is taken for 'forward shifting' while elasticity of supply is taken for 'backward shifting'. Tax on a commodity having inelastic demand is passed on to the consumer. For instance, taxes imposed on necessaries are passed on to the consumers. It is because, the demand for necessaries is relatively inelastic and, therefore, the consumers cannot very much reduce their demand. In other words, the sales are not very much declined in the producer's or seller's point of view. On the other hand, if taxes are imposed on comforts and luxuries, what will be the position? As these commodities have relatively elastic demand, the incidence of taxation cannot be completely shifted to the consumers. A part of the incidence has to be borne by the sellers. It is because, goods having elastic demand if taxed affect the sales of the producer (or seller). From this, it is clear that tax shifting depends upon the comparative resistance of the buyers as well as the sellers to bear the money burden of tax. The buyers tries to avoid the incidence; while the seller tries to shift the incidence to the buyer. The incidence of taxation is , therefore, determined on the basis of the relative elasticity of the demand and supply curves. When the demand curve is perfectly elastic, the incidence of tax will be wholly on the seller. Any increase in the price on account of the tax, adversely affects the demand for the commodity. So, shifting to the consumer (i.e. buyer) is not possible. If the demand curve is vertical i.e., perfectly inelastic, the incidence will be completely on the buyers. Although the price of the goods increases on account of the tax, the buyers cannot reduce their demand. It is easy for the seller to shift the tax burden to the buyers. Similarly, if the supply is perfectly elastic, the tax is wholly borne by the buyers. If it is perfectly inelastic, the include will be wholly on the seller. These situations are shown now diagrammatically:

ELASTICITY OF DEMAND TO THE ELASTICITY OF SUPPLY

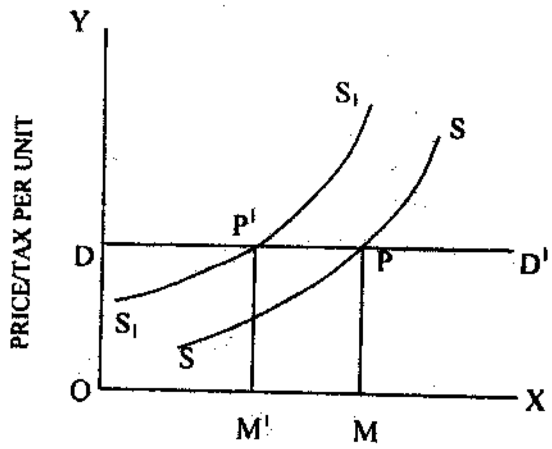


Diagram – 17.1

In the above diagram, DD1 is the demand curve for the product. The price is PM before imposition of tax. Suppose a tax has been imposed and consequently the supply curve SS has shifted left wards. The new price P^IM^I is also the same as PM, the before tax price of the good. The entire incidence of the tax is completely borne by the sellers. The demand curve is perfectly inelastic shown in the diagram.

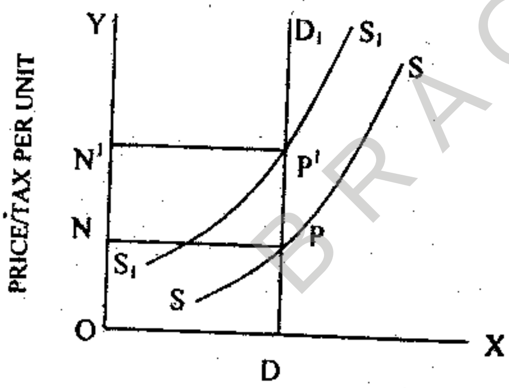


Diagram – 17.2

We have shown that if the demand curve is perfectly elastic, the complete burden is borne by the buyers. D^I is the vertical demand curve. SS is the supply curve. After imposition of the tax, it moved towards left (S^IS^I). The price of the commodity before the imposition of the tax was PD and after the imposition of the tax, it has risen to P^ID. As the demand is perfectly inelastic, it was not possible for the buyers to avoid the tax. The sellers in this case can shift the burden to the buyers completely. P^IP represents the tax.

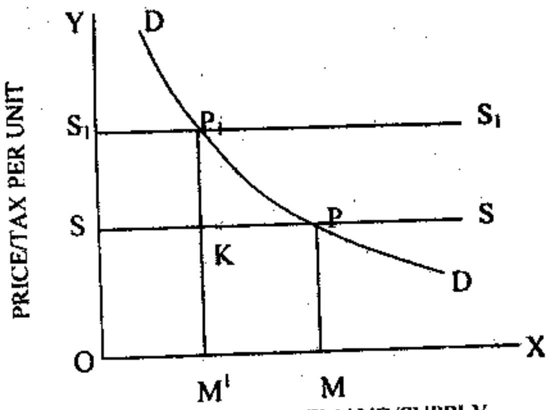


Diagram – 17.3

The supply curve is perfectly elastic. If a tax is imposed, it shifts upwards (S^1S^1). The entire tax PIK is borne by the buyers.

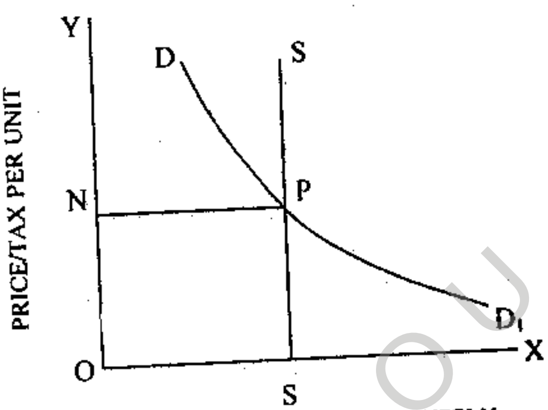


Diagram – 17.4

We have shown a perfectly inelastic supply. The price before tax is PS. After imposition of the tax also, it is not possible for the price to go up. The supply being fixed with the demand DD^1 the same price would prevail even after the tax is levied. So, the entire tax is borne by the sellers. In actual practice, the demand and supply curves would not be either perfectly elastic or perfectly inelastic. So, what would be the position, if we consider a situation with the usual shapes of the demand and supply curves would not be the position, if we consider a situation with the usual shapes of the demand and supply curves? The demand curve normally slopes downwards from the left to right. Similarly, supply curve normally slopes upward, from left to right. We have shown the usual demand and supply curves and found out what would happen if a tax is imposed.

DD and SS are the usual demand and supply curves of a commodity. PM is the equilibrium price. If a tax is imposed, the supply curve shifts upwards towards left (S^1S^1). The new equilibrium price is P1M1. Therefore, the price of the goods has increased by P^1N. The tax per unit is represented by the vertical distance between SS and S^1S^1. Therefore, the incidence tax is given by P^1K, which is equal to P^1N on the buyer and NK on the seller. In other words, the tax incidence is shared between the buyer and the seller in proportion to the elasticities of supply and demand.

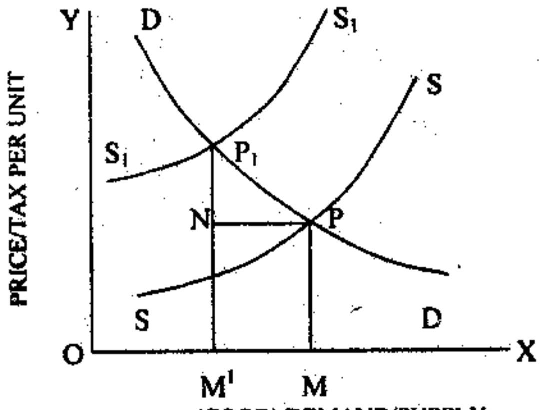


Diagram – 17.5

$$\text{Elasticity of Demand (Ed)} = \frac{\text{Proportionate Change in Demand}}{\text{Proportionate Change in the Price to the Buyers}}$$

$$\text{Elasticity of Supply (Es)} = \frac{\text{Proportionate Change in Supply}}{\text{Proportionate Change in the Price to the sellers}}$$

It may be noted that elasticity of demand is given by proportionate change in demand divided by the proportionate change in the price to the buyers. Elasticity of supply is given by the proportionate change in supply divided by the proportionate change in the price to the sellers. Out of the total tax, the increase in price is P^1N which is done by the buyers. So, the remaining portion NK is borne by the sellers. According to supply schedule SS, the seller is remaining portion NK is borne by the sellers. According to the supply schedule SS, the seller is prepared to sell OM quantity at PM price. After the imposition of tax, the supply schedule is shifted upwards which means the seller's point of view, the change in supply of the commodity. In the seller's point of view, the change in supply price is given by NK. From the above two equations (1) and (2), we can find out the ratio of elasticity of supply (e) to elasticity of demand (ed).

$$es/ed = P^1N/NL = \frac{\text{Incidence of buyers}}{\text{Incidence of sellers}}$$

This can be elaborated as follows.

a) If es=ed, the burden of the tax is equally divided between buyers and sellers. Price of the commodity increase by 50 per cent.
b) If es > ed, incidence will be more onthe buyers. Price increase by more than 50 per cent.
c) If es < ed, the burden of the tax is more on the seller. (The price increases by less than 50 percent).

If we take a tax whose rate goes on increasing as output increase, then the incidence of would be less on the consumer than on the producer. This is a case of progressive tax. The supply schedule shifts in such a way that the more the output, the more is the vertical distance between the original supply schedule and the new supply schedule. Similarly, in the case of a regressive tax, the rate decreases as the output increases. The incidence would be more on the consumers rather than on the sellers.

17.7 INCIDENCE OF SOME PARTICULAR TAXES

17.7.1 A TAX ON MONOPOLY PROFITS

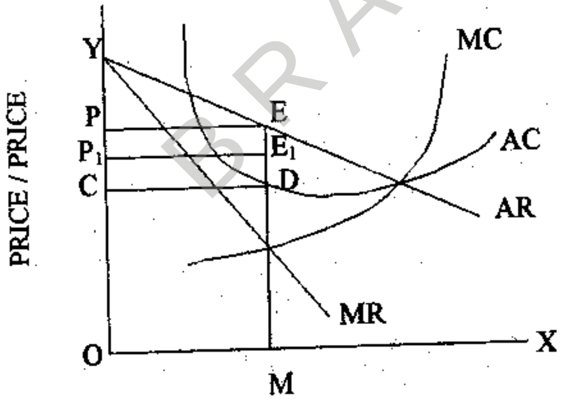
A monopolist fixes his output and price in such manner that profits are maximized. It is possible when he attains the profit maximizing rule namely marginal cost (MC) must be equal to marginal revenue (MR). Suppose a tax is imposed on the monopolist profits, who would bear the incidence? Actually he is supposed to have chosen the profit maximizing position even if no tax on his profits is imposed. So, it is generally believed that the monopolist bears the incidence of tax as he cannot shift the burden on to the consumers (i.e. buyers of his goods). It may be noted that monopolist gets profits after selling his good and a tax on profits cannot be shifted to the buyers. As rightly shown by R.A. Musgrave and Peggy B. Musgrave, the monopolist finds his profits reduced by the tax and cannot pass it on to the consumer via higher prices if he is to remain a profit maximiser.

If TR is total revenue and TC is total cost, then profits P would equal TR–TC Profits are maximized at a level of out put where dp/dq=0 i.e. where [d(TAC)]/dp-0. This situation shows MR=MC. After imposition to a profits tax at rate 't' The Monopolist seeks to maximise (1-T) (TR-TC). Differentiating with respect to Q and selling equal to Zero gives as

$$(1\text{-}t)\,\frac{d(TR)}{dq} - (1\text{-}t)\,\frac{d(TC)}{dq} = 0$$

Dividing by (1-t) again leaves us with MR=MC

Monopoly profits would get reduced by the amount of the tax. The situation can be shown diagrammatically also.



UNITS FO PRODUCT
Diagram – 17.6

AR and MR are the average and marginal revenue curves, downward sloping as is the usual case with a monopoly market. Before tax, OM is the output produced and OP is the monopoly price. Monopolist gets maximum profits represented by CDEP; when MC=MR. If a tax is imposed, as shown earlier it cannot be shifted. So the total profits CDEP get reduced. After the imposition of tax, still he maximizes his profit with MC=MR. But his profits are reduced to CDE_1P_1.

If, however, a tax is imposed on the states, the supply curve will shift according and as explained earlier, the tax indene will be shared between the monopolist and the buyers in proportion to the elasticities of demand and supply.

17.7.2 INCIDENCE OF INCOME TAX

A tax imposed on the personal incomes of people is known as "Income Tax" which is generally not shifted. Income tax is not associated with exchange transactions, which are necessary for shifting the incidence of tax to others. In other words income tax cannot raise cost or price of any good. All costs incurred in the generation of income are normally deducted before net income is subjected to taxation. In the case of salaried class, the gross income is taken first and later all permissible deductions are made to arrive at assessed income for tax purpose. Income tax is a direct tax. The tax rates are different for different states of income. In some counties, income taxation discrimination between 'earned' and 'unearned' incomes.

17.7.3 INCEDENCE OF TAX ON PROPERTY

Property may be used for either consumption on or for production. Suppose a tax is imposed on the owner of property, which is used for consumption, the incidence of the tax cannot be shifted, as there is no price vehicle for forward shifting. For example tax imposed on a house or a residential land cannot be shifted. But sometimes it is noticed that house tax is indirectly shifted by raising the rents from the tenants. Such a situation calls for sharing of the tax incidence of demand and supply, which have already discussed. In the case of the property tax there is a possibility of backward shifting which is known as capitalization. The purchaser of the property discounts its value for future payments of tax.

What will happen to the incidence of tax on property if it issued for production? Suppose a building is used for manufacturing certain products. It is possible to shift the tax incidence o those who will purchase the products. There is therefore forward shifting of the tax, which again depends upon the elasticities of demand and supply of the product.

In addition to the main factors that determine tax shifting as the basis of elasticities of demand and supply, there are some more factors which might influence the incidence of taxation. They are more related to the usual practice adopted in the market. For instance, consumers may not be aware of the actual price fixed for a product by several producers. An incidental seller may quote a price inclusive of the tax and shift the burden on to the buyer. Sometimes due to market imperfections, it is possible to increase the price more than the actual amount of tax. Due to taxation of inputs entering into the making of goods, there may be what is known as 'cascading effect'. The price of the goods increases much more than the amount of tax due to cascading effect also. In some occasions when the tax is very small, the producers (or sellers) may absorb the tax by themselves with out increasing the price of the goods so that they would not loose the goodwill of the buyers. In the case of commodity for which there are a good number of substitutes, tax shifting becomes difficult. The consumer may prefer to shift their demand form the taxed commodity to such of those goods, which are either not taxed or taxed at a lower rate.

17.8 DOUBLE TAXATION

If the same taxable resources are taxed more than once, it is called "Double Taxation" The government of a country may tax not only its own subjects securing their incomes from with in the national territories but even the foreigners who earn certain incomes from with in the taxing country. Different countries adopt different tax laws and thus rise to double taxation. Suppose 'X' earns income in country A although he belongs to county B. The income of X is taxed not only by the government of country A but also by the government of country B. Sometimes, it has been argued that double taxation may arise not only due to earnings incomes else where but also within the same country. For example, in a partnership firm not only the profits of the company are taxed under the corporation tax but the dividends of the shareholders are brought under the fold of the personal income tax. But more often double taxation is referred to taxing incomes by two or more governments. Double taxation may adversely affect the incentives of the people to hard work. In recent time the problems of double taxation have been recognized by the taxing countries. Certain concessions are given to the persons from payment of income tax in both the countries.

17.9 CERTAIN CONCEPTS OF INCIDENCE

In recent times, economists like Mrs. Ursula Hicks, R.A. Musgrave etc. have interpreted tax incidence in terms of changes in the distribution of income in the economy. According to these writers, there are mainly three important effects on account of changes in the budget policy of a government. (i) There would be changes in the resource transfer from Public to the government (ii) output effects and (iii) effects on the income distribution. The term 'incidence' may be taken to mean only the 'money burden'. As far as interpreting tax incidence in terms of distribution changes, we have certain concepts like specific tax incidence; differential tax incidence; the incidenced of public expenditure and balanced budget incidence. These concepts have been dealt with elaborately in a subsequent lesson 'burden of taxation'.

According to Dalton the incidence of tax can be analysed broadly under two types. First is the direct money burden. Second is the real burden of a tax. We have already dealt with the first kind of tax incidence relating to the direct money burden. When a tax is imposed it is shifted to other depending upon the conditions of the market, nature of the product, elasticities of demand and supply etc. In the words of Dalton. "To every shilling of revenue raised, there corresponds a shilling of direct money burden or incidence falling upon some one". The problem of incidence is to locate the person who ultimately pays the tax. So far as the second version of Dalton is concerned, it may be noted that payment of a tax may result in loss of economic welfare. Strictly speaking this is not a problem of incidence (i.e. direct money burden) but a problem connected to the real burden of the tax. There may be direct as well as indirect real burden of a tax. Real burdens are measured in the form of changes in consumption income distribution etc.

Mrs. Hicks also makes a distribution between formal and effective incidence of a tax. Formal incidence according to her is the direct money burden, while effective incidence is in the nature of broad effects of the tax. So, Mrs. Hicks formal incidence more or less resembles the direct money burden stated by Dalton. According to R.A. Musgrave the effects of the imposition of a tax may be on a number of important economic variables. They may be influencing consumption, production, employment and distribution of wealth and income in a country. In the words of Musgrave "The effects are defined as residual, including both changes in output and those changes in distribution which are not considered a part of the direct money burden".

17.10 SUMMARY

It may be noted form the foregoing discussions that in taxation as far as incidence is concerned it is necessary to keep in mind two fundamental aspects. Firstly, all taxes are paid from the income stream of the individuals. So it involves a transfer of purchasing power from the individuals. So it involves a transfer of purchasing power from the individuals or tax paying units to the Public authority. Secondly, the person on whom the tax is imposed need not necessarily bear its incidence. He may pay tax is imposed need not necessarily bear its incidence. he may pay the tax to the public authority at the first instance but later tries to shift the money burden of it either forward or backward which again depends upon many factors. The effects of tax are related to the real burden while incidence is to the direct money burden of tax.

17.11 CHECK YOUR PROGRESS

I. Answer the following questions in about 4 or 5 lines each.

1. What is the impact of tax?
2. What is the incidence of tax?
3. What is meant by shifting of tax?
4. Identify forward shifting and backward shifting.
5. What do you mean by tax capitablisation.
6. What is differsion theory?
7. What do you learn from the demand supply theory of insidence.
8. ..... income tax be shifted?
9. What are the determining facters of tax shifting.
10. What is meant by double taxation.

17.12 MODEL EXAMINATION QUESTIONS

I. Answer the following questions in about 30 lines each

1. Explain the incidence of taxation.
2. Briefly discuss the theories of incidence of taxation.
3. Examine the demand supply theory of incidence of taxation.

II. Answer the following questions in about 15 lines each

1. Distinguish between impact and incidence of a tax.
2. Describe the shifting methods of a tax.
3. Explain the concentration theory and the diffusion theory.
4. Explain the following concepts:

   a) Tax capitalization b) Double taxation.

17.13 GLOSSARY

Impact of Tax : When government imposes a tax, the money burden of it is borne by the person in the first instance who is legally bound to pay the amount of tax to the government.

Incidence of Tax : While the impact of a tax is on a person who pays it in the first instance, but incidence is referred to the ultimates burden of the tax. This incidence is on a person a or group of paid who bears ultimate burden on the ultimate tax payer.

Shifting of Tax : The process of transferring the money burden of tax is called 'shifting'. For example the tax burden is

		shifted from the manufacturing to the whole saler and then to retailer and finally to the consumers. Shifting of a tax can be said to be of two types i.e. forward shifting and backward shifting.
Forward Shifting of Tax	:	It a tax in shifted from manufacturer to whole saler and then to retailer and finally to consumer is known as 'forward shifting' in ease of price raising.
Backward Shifting of Tax	:	It the price paid to the factors of production is affected due to shifting of tax, it is known as backward shifting.
. ax Capitalisation	:	Tax-capitalisation is the special type of backward shifting. when permanent assets yields certain percentage of value as annuel incomes are sold. The buyer will calculate the future burden or try to shift the burden backward to the seller.
Concentration Theory	:	This theory tells that all taxes are shifted imposed and get concentrated or the agricultural rent.
Diffension Theory	:	This theory expains that taxes are diffused able view the society. Nobody can either been the entire burden of tax on law escape from its burden totally.
The Demand Supply Theory	:	This theory tells that all taxes should be imposed directly upon the taxable economic surplus i.e. from consumer to producer.

17.14 SUGGESTED BOOKS

1. B.P Thyagi : **Public Finance**
2. H.L. Bhatia : **Public Finance**
3. Mussgrave R.A. : **Theory of Public Finance**

- Prof. Md. Iqbal Ali

BLOCK VI : PUBLIC EXPENDITURE AND PUBLIC DEBT

This block mainly discuss about the various aspects related to Public Expenditure and Public Debt in detail. Agent from explaining the that spends to achieve the higher growth rate, the reasons to its grantly and various theories that were developed the later period. It also explains how the impact of public expenditure on production, distribution and other related aspects thereof. You are well aware that government borrows money from the various sources in order to spend on the developmental programmes to the people. The problems that are confronted by the government and various redeeming methods are also discussed here in this block.

This block contains the following 4 units.

Unit – 18 : Growth of Public Expenditure : Wagner's Law and Peacock and Wiseman's Hypothesis

Unit – 19 : Effects of Public Expenditure

Unit – 20 : Public debt – Nature and Burden

Unit – 21 : Redemption of Public debt

UNIT – 18 : GROWTH OF PUBLIC EXPENDITURE : WAGNER'S LAW AND PEACOKC – WISEMAN HYPOTHESIS

Contents

18.0 OBJECTIVES

The important objective of this unit is to explain the growth of public expenditure and Wagner's law and Peacock Wiseman Hypothesis.

After reading this unit, you will be able to:

- discuss the objectives of public expenditure;
- describe the classification of public expenditure;
- state the Canons of public expenditure;
- explain Wagner's law of public expenditure;
- analyse Peacock-Wiseman hypothesis of public expenditure.

18.1 INTRODUCTION

Government mobilizes revenues through taxation and spends them on several programmes that promote the rate of growth of the economy and the welfare of the society. The level of expenditure is related to the functions of the government. Many modern governments have assumed the role of welfare states and hence the expenditure has been growing over a period. The rapid growth of public expenditure associated with law productivity has been the major concern of many states at present.

In this context this unit examines the Canons of public expenditure and different types of public expenditure incurred by the countries all over the world. It explains the laws relating to the growth of public expenditure developed by **Wagner, Peacock-Wiseman** and their relevance in the modern times. Further, it presents a detailed account of the growth of public expenditure in India during the recent decades. A clear understanding of these aspect helps the reader to know the causes for the growth of public expenditure, the theories of public expenditure and the trends in the growth of public expenditure in a comprehensive manner.

18.2 DEFINITION AND OBJECTIVES OF PUBLIC EXPENDITURE

Generally, a government incurs expenditure to run the administration and to implement various programmes for the development of the country. Development includes the growth of national output and promotion of the welfare of the society. Public expenditure refers to the "expenditure incurred by the government on its own maintenance and on the implementation of the programmes designed in the annual plans (budgets) or Five year plans of the country. Public expenditure incurred during the five year plan period is intended to implement developmental and welfare programmes in the country besides providing employment opportunities to its people.

Now-a-days, some Governments are incurring expenditure to assist other countries in their developmental efforts and which also forms a part of the public expenditure. It is said that public expenditure is the sum of expenditures incurred by the centrel, state and local self Governments to provide social goods to satisfy the merit needs of the society that promotes their economic and social welfare. Infact, public expenditure seeks to maximise the index of social welfare. Hence, it is important and necessary to identify the dimensions of social welfare. Hence, it is important and necessary to identify the dimensions of social welfare to make the goals of public expenditure operational.

It is realised that public expenditure plays a vital role in shaping the National economy. The important objectives of public expenditure are classified into allocation, distribution, stabilisation and the growth objectives. The allocative objective of public expenditure relates to the optimum allocation of scarce resources to promote the welfare of the society.

1. Developing countries must keep down their level of current consumption at present, in order to increase it in future. It means, the level of savings is to be increased at present to increase public expenditure and investment to achieve economic growth.
2. Public investment has its impact on other fields of public policy such as employment, economic stability and growth. Expenditure or investment by public authorities may be undertaken for securing or maintaining full employment or economic growth.
3. Public expenditure aims at the provision of goods to satisfy collective wants. In other words, goods like educational and health facilities are to be provided by the government through public expenditure. Thus, public expenditure becomes necessary to provide these goods which are not supplied by the market or private enterprise.

The second objective of public expenditure is to influence the distribution of national income. One of the goals of taxation and public expenditure is to minimise the inequalities in the income and wealth resulting from the uncontrolled working of the market mechanism. The state of distribution depends primarily on the ethical principles like equity, equality, liberty and political considerations, **Lange and Lerner** demonstrated that under certain conditions, an equitable distribution of income would maximise total welfare of the society. In otherwords, greater the inequality in the distribution of income between we are from the goal of realizing maximum social welfare. Progressive taxation on one hand and subsidies on the other, redistribute income in an equitable manner. However, Lange says that only socialist society can distribute income so as to attain the maximum social welfare.

Stabilisation, the objective of public expenditure mentions stability in the levels of income, employment, prices and balance of payments. The instruments that influence these factors are monetary policy, fiscal policy which include tax policy and expenditure policy. The problem of stabilising employment and income is the problem of economic development itself. Hence, public expenditure aims primarily at development, growth is the cause of inflation and inflation is responsible for growth. Hence, price stability is neither conducive nor invical to the process of economic growth. The power of public expenditure to stabilise prices may have to give way to its ability to promote development.

Promoting economic development is one of the major objectives of public expenditure. In fact, the role of public expenditure is important in the accumulation of capital that governs the rate of growth of productive capacity. The rate and level of savings are crucial factor in the process of economic development in its early stages. Public expenditure (1) education is necessary to improve the skills, (2) health is necessary to increase the life expectancy, (3) research and development is necessary to improve the knowledge or technologies as they are vital for economic development. Hence, the policy measures should be primarily directed to ensure public expenditure on these factors.

18.3 CLASSIFICATION OF PUBLIC EXPENDITURE

The classification is designed to meet the heads of accountability. In recent years economic classification has become very important.

Several economists have given several classifications of public expenditure. Some important obscurations are shared, here.

1. Carl Plehn

Carl Plehn classified public expenditure on the basis of benefits it confers on the society.

a) Expenditure which confers common benefit on all citizens. For example, expenditure on defence.
b) Expenditure which confers a special benefit on classes which is treated as common benefit. For example, expenditure on poverty, relief activities and programmes.
c) Expenditure which confers special benefit on some persons and common benefit on all. For example, expenditure on roads, buildings, water supply and drainage.
d) Expend which confers only special benefit on individuals. For example, expenditure on state industry.

2. J.S. Nicholson

J.S. Nicholson classified public expenditure, based on the amount of revenue the state realises in return for the services which it performs through public expenditure.

a) Expenditure without direct return revenue. For example, expenditure on poverty relief.
b) Expenditure without direct revenue return but with indirect benefit to revenue. For example, expenditure on education, health.

c) Expenditure with partial direct return of revenue. For example, expenditure on chargeable irrigation works.
d) Expenditure with full return of revenue or even profits. For example, expenditure on Railways, Posts & Tel., Airways etc.

3. Adams

Adam's classification of public expenditure is functional in its nature.

a) Expenditure on protective services. For example, expenditure on defence and police.
b) Expenditure on commercial sector. For example, expenditure on industrial exhibitions.
c) Expenditure on developmental areas. For example, expenditure on education, health etc.

4. J.S. Mill

J.S. Mill's classification of public expenditure is departmental in its nature.

a) Optional expenditure – expenditure which is regarded as optional (may ot be so since political expediency demands that it must be incurred).
b) Obligatory expenditure – expenditure in respect of owing to past contracts and other legal commitments of the state. For example, expenditure on interest payments.

5. Roscher

Roscher presented the need based classification of public expenditure.

a) Necessary expenditure which cannot be postponed.
b) Useful expenditure which is desirable but can be postponed.
c) Superfluous expenditure that states may or may not incur.

6. Findlay Shirras

Findlay Shirras's classification of public expenditure is based on the primary and secondary functions of the government.

a) Primary expenditure includes all expenditure which governments worthy of name are obliged to undertake. For example, expenditure on defence, law and order etc.
b) Secondary expenditure includes social expenditure on public undertakings, etc.

7. H. Dalton

Dalton's classification of public expenditure deals with the relationship between expenditure and grants.

a) Grants – when a state incurs expenditure and does not get any commodities or services in return, the expenditure is classified as grant. E.g., poverty relief, scholarships.
b) Purchase price – when a state incurs expenditure and gets some commodity or service in return, the expenditure is a purchase price.

Dalton says that some public expenditure may be partly purchase price and partly a grant. (When the government pays a price higher than what is normally due).

He also makes a distinction between direct and indirect grants.

1. Direct grants are those where the benefits occur to the person who receives the grant. E.g., Scholarships.
2. Indirect grants are those where part of the benefit to a person other than the recipient of grant. E.g., subsides given to some producers may be passed on to the consumers in the from of lower prices.

8. A.C. Pigou

A.C. Pigou classified public expenditure into Transferable and nontransferable expenditure.

a) Transferable expenditure is the expenditure which consists of payments made either gratuitously or purchase of existing property rights to private persons. E.g., expenditure on pensions, interest payments etc.
b) Non transferable expenditure is the expenditure that purchases the current services of productive resources for the use of those authorities. E.g., expenditure on army, education, judiciary etc. This expenditure is called exhaustive expenditure and real expenditure and also non-transfer above expenditure.

According to Pigou if a soldier is paid Rs.100 while he should have been paid Rs. 80, then Rs.80 is the real expenditure and Rs. 20 is the transferable expenditure.

9. Economic Classification

Social accountancy made it necessary to classify the budgetary transactions of the government in a manner that helps, the economic interpretations of the public finance activities of the government.

In India economic classification of government budgetary transactions were presented in 1957-58 budget.

1. Expenditure on current account – this included expenditure on the purchase of commodities and services.
2. Expenditure on capital account – this includes expenditure on transfers.

It becomes necessary to distinguish government outlay in the nature of consumption expenditure from which results the capital formation directly or promotes capital formation indirectly.

18.4 CANONS OF PUBLIC EXPENDITURE

Some canons are in the form of administrative safeguards while others help the economy in their diverse objectives. These canons are only broad generalisations and the detailed guidelines have to be worked out in each specific case.

18.4.1 CANON OF ECONOMY

Public expenditure is the resources, the government and the plans at the disposal of various sectors. While public expenditure wastage are to be avoided. Proper planning, timely sanction and execution of public expenditure works are essential. Delay leads to loss of benefits from public expenditure. Prices rise, and estimates are revised and the authorities pay more. In certain contractual expenditure (interest payments) the economy in the use of public expenditure does not arise.

18.4.2 CANON OF SANCTION

No public funds should be used without proper sanction from an authority and funds must be used for the purpose specified. These restrictions would avoid unscrupulous and unwanted expenditure and will check misappropriation of funds.

18.4.3 CANON OF BENEFIT

This is closely related to the cannon of economy public expenditure should be incurred only if it is beneficial to the society. It leads the authorities to observe the principle of maximum social advantage.

18.4.4 CANON OF SURPLUS

It means the avoidance of deficit budget. Budget should aim at meeting the current expenditure needs from current revenues. This is an off-shoot of Laissez-faire philosophy. Budget should generate a moderate surplus.

18.5 WAGNER'S LAW OF PUBLIC EXPENDITURE

Rapid rate of industrialisation and expansion of public sectors in many of the western countries during the 19th century and early 20th century resulted in an increase in the governmental activity. This has been associated with an increase in output and demand or population made the economic environment more complex. The increased governmental activity was reflected in a higher proportion of total resources, more specifically, an increase in the resources allocated to the public sector. The rapid expansion of public sector under the influence of the government was responsible for the growth of public expenditure in many countries. Several theories have been developed to explain this phenomenon of increasing governmental activity in terms of growing public expenditure.

Adolph Wagner, the famous German political economist (1935-1917) observed that there is a functional relationship between the growth of an economy and the relative growth of its public sector. His theory of public expenditure explains the cause and effect relationship between the expansion of public sector and growth of an economy. According to Wagner, relative growth of government sector is an inherent characteristic feature of industrial economics. Hence, theory is popularly known as Wagner's hypothesis of increasing governmental activity. Wagner's theory is, based on the experiences of Britain which completed its industrial revolution and also that of the U.S.A, France, Germany and Japan.

Wagner's hypothesis of increasing governmental activity says that as percapita income and output increase in industrialising nations, the public sectors of these nations necessarily grow as a proportion to total economic activity. It means that the output of public goods increases as a ratio to the Gross domestic product over a period of time. The essence of Wagner's hypothesis is that the real percapita output of public goods (RPCOPG) as a ratio to real percapita income (RPCI) of the current year is greater than that of the last year.

Wagner distinguished certain types of governmental activities or the functions of the government into two categories.

Firstly, providing law and order in the country is the primary duty of the government. Essentially it relates to the provision of the environmental conditions necessary for the functioning of the market. It is necessary to increase the public sector activity leading to economic growth and an increase in the percapita output. Thus efficient performance of the economy requires increased economic influence of public sector.

Secondly, participation in the material production of goods is an equally important function of the government. This includes the provision of certain social goods like education, communications, banking etc., that facilitate rapid growth of public sector and economic growth. Wagner believed that government corporations must produce certain collective (economic) goods requiring large fixed investments. Private corporations with profit motives cannot undertake such large scale investment, such goods assume the characteristics of public goods or social goods that are used by a major portion of the community.

In an economy where there are public sector and private sectors, the total output of the economy is equal to the output produced in the public sector and the output produced in private sector. If one sector porduces more and the other sector produces less then it means that a transfer of porductive resources from one sector to another. Lakes place Wagner's law states that in the industrialised economics the share of resources allocated to public sector increases due to a transfer of resources from private sector to public sector.

18.5.1 WAGNER'S HYPOTHESIS IN STAGES OF ECONOMIC DEVELOPMENT

Wagner's analysis is related to the experiences of industrial nations. It is directed towards the historical growth of industrial nations or the industrialisation era. Wagner observed that industrial countries progressed in stages and these stages include pre-industrial stage, industrial stage and post-industrial stage. On an average the living standards of the people are different in different stages.

According to Wager the proportion of the real percapita output of public goods to real percapita income charges from stage I (pre-industrial stage) to stage II (industrial stage) and to stage III (post-industrial stage). The proportion of RPCOPG to RPCI tend to be low in the pre-industrialisation stage. This is mainly because of the reason that mot subsistence wants and goods have been traditionally provided by the private sector through market type arrangements. Consequently economic expansion in the pre-industrialisation stage would cause the RPCOPG to become a smaller proportion of RPCI. In otherwords, the real percapita output of private goods becomes an increasing proportion of RPCI.

Thus, $\frac{PRCOPG_1}{RPCI_1} > \frac{RPCOPG_2}{RPCI_2}$

As economic development continues real percapita income increases and as a result the relative allocative importance of each sector may change. Economy moves from stage I to stage II and investment in social capital items such as communications, transport and educational capital goods takes place as a part of the process of economic development. Since these goods contain many collective characteristics they are often provided more efficiently by the public sector. According to Wagner's hypothesis these social overhead items will be provided in sufficient quantities during the period of industrialisation and the economy will attain industrial maturity (stage II) where the ratio of RPCOPG to RPCI becomes optimum or maximum.

Thus, $\frac{PRCOPG_1}{RPCI_1} < \frac{RPCOPG_2}{RPCI_2}$ reaches maximum level.

In the post industrialisation stage the proportion of real percapita output of public goods to real percapita income declines. In this stage all spending units possess an adequate standard of living. Infact, at this stage of economic development government would have already provided those economic goods which can provide an efficiency advantage. Moreover, society may be resisting too large a public sector in relative terms due to cultural preferences to market activity with its greater individual freedom. Hence, the RPCOPG becomes a smaller proportion of

RPCI during the post-industrialisation period. In otherwords, the relative importance of public sector tends to decline.

Thus, $\frac{PRCOPG_1}{RPCI_1} < \frac{RPCOPG_2}{RPCI_2}$

18.5.2 CRITICISM OF WAGNER'S HYPOTHESIS

Firstly, Wagner's hypothesis appears to be dealing with inter disciplinary phenomenon but in reality it is not in that analytical framework.

Secondly, theory of public expenditure deals with the disciplines of political science, economics and sociology. It also considers the cultural characteristics of the society such considerations are not discussed in Wagners theory.

Thirdly, Wagner's hypothesis of increasing proportion of experience of industrialised nations. However, it is found that this theory is true in economics with diverse socio-economic, political and cultural backgrounds.

Fourthly, the causal conditions described by Wagner's hypo thesis relating to economic nature appears to be narrow in its scope as other conditions also influence the expansion of the public sector.

Finally, the role of the state in determining the size of public sector was criticised by Peacock and Wiseman. They also criticised Wagner's view of long term trend of public economic activity which overlooked the time pattern of the growth of public expenditure.

18.6 PEACOCK AND WISEMAN HYPOTHESIS OF PUBLIC EXPENDITURE

Peacock and Wiseman developed their general approach to increasing public expenditure in the later half of the twentieth century. Their hypothesis is based on the experience of the growth of public sector in Britain. Peacock and Wiseman stressed the trends in the pattern of public expenditure in their analytical work published during the early 1960s. For their study, they used the empirical data of the British economy after 1890 and observed the trends in the growth of public sector in Britain. Their study revealed that the relative growth of public sector in Britain occurred in a 'step like' manner rather than a continuous basis. In other words, they found that governmental fiscal activities have risen step by step to successive higher levels during the twentieth century. In order to explain this phenomenon, they developed a general approach which includes three concepts namely displacement effect, inspection effect, and concentration effect. These are three separate effects which are related to one another.

Peacock and wiseman observed that most of the absolute and relative increases in taxing and spending by British government have occured in a step like manner during the periods of disturbances such as war and depression. They contended that these disturbances create a displacement effect by which the previous low levels of tax and expenditure are replaced by new and higher budgetary levels. Higher level of public expenditure supports higher level of taxation during the period of disturbances. In otherwords, people develop 'tax tolerance' that had emerged to support higher public expenditure.

After the social disturbance the society realises that it is capable of carrying a heavier tax burden than it previously had thought possible. Thus, when the major social disturbance ends, no strong motive exists for a return to the lower pre-disturbance level of taxation. This results in mobilisation of higher revenues which may support higher level of public sector activity. In the meanwhile, private sector activity contracts atleast partially. In otherwords, in the total resource allocation of the country the proportion of private sector allocation is partially displaced by additional public sector allocation. This is known as displacement effect.

In time period T_1, public sector activity was at a low level. Then social disturbances occur from T_1 and as a result public sector activity expands to a higher level in the time periods of T_2. As a consequence of social disturbances the increase in the governmental activity or expansion in the proportion of public sector takes place. Increase in the proportion of public sector means decline in equal proportion of private sector. In otherwords, increased proportion of public sector activity displaces the proportion of private sector activity. This is infact explained by the time factor from T_1 to T_2.

The increase in the government expenditure is mainly due to two reasons. (1) The direct effects of social disturbance on increased governmented expenditure on pensions and interest benefits. (2) The effect of expenditure on other items which expand government expenditure into new areas of economic activity. These are earlier provided by the private sector, and now taken over by the public sector.

After the social disturbance the society realises that it is capable of carrying a heavier tax burden and tries to expand the rate of growth. Moreover, wars and social disturbances force the people and the government to seek solutions to the problems which had been neglected previously. This is called Introspection effect because the economy attempts to identify the problems and find solutions to these problems. Thereby the country strives to increase the rate of growth of the economy.

In the process of expanding the rate of growth of the economy the Government concentrates its efforts on the development of public sector through rapid industrialisation. This is called the Concentration Effect. When the country is experiencing economic growth. Concentration Effect refers to the apparent tendency of the central governmental economic activity to become an increasing proportion of total public sector economic activity. This means that private sector activity will necessarily decline with the growing importance of public sector activity.

Empirical data relating to the experience of Britain in the twentieth century supports the hypothesis developed by **Peacock and Wiseman.** However, it is applicable to explain the experiences of other industrially developed nations. Infact, their hypothesis is partially useful for application to the growth of the public sector in United States of America.

18.7 SUMMARY

Public expenditure refers to the expenditure incurred by the government on its own maintenance and on the implementation of the progremmes designed in the annual plans (budgets) or Five year plans of the country. Public expenditure is the sum of expenditures incurred by the central, state and local self governments to provide social goods to satisfy the merit wants of the society that promotes their economic and social welfare. The important objectives of public expenditure are classified into allocation, distribution, stabilisation and the growth of objectives.

Public Expenditure may be classified into different categories. However, the important classification is the economic classification which includes (a) expenditure on current accounts and (b) expenditure on capital accounts the important cannons of public expenditure are the cannons of economy, sanction, benefit and surplus.

Wagner's huypothesis of increasing governmental activity says that as percapita income and output increase, in industrialising nations, the public sectors of these nations necessarily grow as a proportion to total economic activity. Wagner's law states that in the industrialised economies the share of resources allocated to public sector increases due to a transfer of resources from private sector to public sector. Wagner observed that industrial countries progressed in stages and these stages include pre-industrial stage, industrial stage and post-industrial stage. As economic development continues real percapita income increases and as a result the relative allocative importance of each sector may change.

Peacock and Wiseman found that governmental fiscal activities have risen step by step to successive higher levels during the twentieth century. In order to explain this Phenomenon, they developed a general approach which includes three concepts namely Displacement Effect, Introspection effect and Concentration effect. Peacock and Wiseman observed that most of the absolute and relative increases in taxing and spending by British government have occured in a step like manner during the periods of disturbances such as war and depression. They contended that these disturbances create a displacement effect. After the Social Disturbances the society realises that it is capable of carrying on heavier tax burden than it previously had thought possible. This results in mobilisation of higher revenues which may support higher level of public sector activity, and tries to expand the rate of growth. This is called Introspection effect. In the process of expanding the rate of growth of the economy the Government concentrates its effects on the development of public sector through rapid industralisation. This is called the Concentration effect.

18.8 CHECK YOUR PROGRESS

I. Answer the following questions in about 4 or 5 lines each.

1. What are the canons of public expenditure?
2. What are the displacement, instruction and concentration effects?

18.9 GLASSARY

Public Expenditure : It is the total of all expenditures incurred by the central and state governments to provide the social goods that promote economic and social welfare.

Displacement Effect : Wars and depressions cause disturbances. Hence to meet the increased expenditure low levels of taxation are displaced by high levels of taxation.

Introspection Effect : After the wars people become accustomed to pay higher taxes or the tax tolerance capacity of the people increases to pay more for economic growth.

Connection Effect : With the increased revenues government concentrates on the economic growth of the country.

18.10 MODEL EXAMINATION QUESTIONS

I. Answer the following questions in about 30 lines each

1. Describe the classification of public expenditure.

2. Explain the Wagner's law of growing public expenditure.
3. Critically examine the Peacock-Wiseman hypothesis of public expenditure.

II. Answer the following questions in about 15 lines each

1. State the objective of public expenditure.
2. Explain the cannons of public expenditure.
3. Describe Wagner's stages of industrial progress.
4. Discuss the displacement effect of public expenditure.

18.11 SUGGESTED BOOKS

1. R.A. Musgrave : **The theory of public finance,** Mc Grew Hill, 1959.
2. P.E. Taylor : **The Economics of public finance,** Oxford publishing company, 1948.
3. J. Wiseman and Peacock : **The growth of public expenditure,** United Kingdom, 1961.
4. Musgrave and Peacock : **Classics in the theory of public finance, International economic association conference,** London, 1958.
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6. A.P. Prest : **Public Finance in theory and practice,** English language book society, 1960.

- Prof. K. Nageswara Rao

UNIT - 19 : EFFECTS OF PUBLIC EXPENDITURE

Contents

19.0 OBJECTIVES

The important objective of this unit is to explain the effects of Public Expenditure.

After reading this unit, you will be able to:

- explain the causes for the growth of public expenditure;
- examine the trends in the growth of public expenditure;
- analyse the effects of public expenditure on production and employment;
- describe the impact of public expenditure on economic growth;
- discuss the effects of public expenditure on redistribution of income.

the provision of civic amenities like goods, roads, electricity, water supply and other essential services has been increasing gradually.

19.2.7 AGRICULTURAL DEVELOPMENT

In developing countries, to achieve self-sufficiency in foodgrains production, government is forced to undertake many measures to improve agricultural productivity. Government spending has become inevitable on improving the irrigation facilities, flood control arrangements, supply or agricultural implements, inputs, fertilisers etc. All these involve huge investments. Government's commitment to develop the industries in backward regions and to provide several incentives like tax concessions, provision of credit at lower rates of interest, the marketing facilities etc. is done with huge expenditure. For the rapid development of agricultural and industrial sectors creation and maintenance of economic overhead facilities is essential. It becomes the responsibility of the government to provide these infrastructural facilities with large public expenditure.

19.2.8 CONTROL OF MARKET MECHANISM, PROVISION OF SUBSIDIES

In a mixed economy under decentralised planning it is the responsibility of the government to minimise the evil effects of market imperfections. It is the bound duty of the government to control the market mechanism to ensure the distribution of essential goods and services to larger section of the society. On onehand government has to keep a vigil on unfair trade practices and on the other has to distribution system. Establishment and maintenance of such organisations involve huge expenditure by the government. Welfare state has to provide a safety net for the weaker and vulnerable sections of the society regarding good security and providing employment in rural areas. As a part of the planning by inducement efforts, a state has to offer some subsidies to private sector entrepreneurs, agriculturists through minimum support prices, subsidies in the areas of power supply and has to extend financial assistance to rural youth and women to take up income generating activities. All this expenditure becomes a heavy burden on the ex-chequer.

19.2.9 RELIEF AND REHABILITATION

In times of natural calamities or disasters it becomes obligatory for the government to spend large amount of funds on relief and rehabilitation works. In the recent times all governments are resorting to deficit budget programmes and are borrowing heavily from internal and external sources. As a result, the repayment of public debt and the obligations to pay service charges are posing a heavy financial burden. A substantial part of public expenditure is used for servicing modern governments have to maintain cordial relations with all the countries and international financial institutions. They have to spend heavily on the maintenance of Indian embasies in several foreign countries.

19.3 GROWTH OF PUBLIC EXPENDITURE IN DEVELOPING COUNTRIES

It is realised that government expenditure as a ratio to Gross Domestic Product in many developed and developing countries has been growing continuously. However, there are differences in the trend and direction of the growth of public expenditure in these two groups of nations. In developing countries public expenditure seems to be increasing as a result of technology provision of education, health facilities and expenditure on research and development in almost all areas. On the otherhand, the growth of public expenditure in developing countries may be attributed to the failure of the market mechanism to deliver the desired benefits.

In many developing economies, including India, public expenditure has grown at a faster rate than the growth of gross domestic product, Permanent influence of population growth and price increase has not affected the secular growth in these countries. This is in conformity with Wagner's hypothesis that increases in public expenditure takes place regularly with the increasing functions of the control and local self-governments. Peacock and Wiseman effects explaining the impact of worldwars disappeared after the war. However , the displacement effects produced after independence, in India, particularly after 1951 are still in force. The percentage of national income spent on defence increased from 2.0 percent to 4.5 percent. The percapita expenditure on defence increased by three times while national income doubled during a decade after independence. At present also there has been a considerable increase in the defence expenditures of India and Pakistan for fear of war and strife.

The total expenditure increased by the government may be classified into revenue and capital expenditures. Revenue expenditure comprises of civil expenditure including the expenditure on interest payments, general, social and economic services, defence expenditure, subsidies and grants-in-aid to states and local territories. During the last decade revenue expenditure increased by 2.5 times while total expenditure of Indian government doubled during this period. Capital expenditure comprises loans to states by centre, capital expenditure on development, defence, general, social and economic services development works. The share of capital expenditure to total expenditure declined from 37.0 per cent during 1950-51 to 21.0 per cent during 1999-2000. This indicates that the public expenditure is being used largely for non-developmental purposes while less than one quarter of it is used for creating productive capacity.

19.4 EFFECTS OF PUBLIC EXPENDITURE ON PRODUCTION

Public expenditure needs to be looked upon as an indispensable fiscal instrument of securing economic stability and social welfare. For minimising the inequalities in the distribution tax policy and expenditure policy. Infact, the policies of taxation and public expenditure are complementary and supplementary. In certain areas of economic activity where the market mechanism (private sector) fails to distribute the benefits that promote the welfare of the people, government expenditure becomes inevitable. All this indicates that public expenditure has its effects on different economic activities in different magnitudes. Infact, public expenditure influences the level and direction of production and employment, the pattern of distribution of income and the pattern of economic growth. Hence, let us examine the effects of public expenditure on the levels of production and employment. Public expenditure along with other methods of raising public income diverts resources into the areas and activities determined by the public policy. This may cause significant changes both in the character and volume of production in an economy. Infact, public expenditure includes public savings that promotes investment in fiscal and human capital in public and private sectors. Public expenditure involves transfer of purchasing power with in the economy and it increases the productive capacity of the country. Expenditure on defence and police incurred to create order and security creates conditions under which organised production can take place. Thus, public expenditure provides the basic environment to undertake production activities in an economy.

19.4.1 EFFECTS ON ABILITY TO WORK, SAVE AND INVEST

Public expenditure influences the production level of an economy in different ways. Public expenditure acts through its effects on the obility to work, save and invest. Expenditure on the promotion of education and training programmes enables the employees and worker's to improve their productive skills. Expenditure on the provision of medical facilities helps the workers to maintain their physical fitness to work for longer time. Similarly, expenditure on the provision of housing accommodation, sanitation and social security measures measures like

19.1 INTRODUCTION

The effects of public expenditure are related to the nature of public expenditure in different countries. Public expenditure produces direct effects and indirect benefits. In a socialist country where there is no scope for private sector all expenditure is incurred by the government only. Hence, public expenditure by the state influences directly the level of production and employment, distribution of income and the pattern of economic growth. In mixed economics where private sector also plays an important role, government through public sector influences the level of production and employment indirectly. State intervention becomes inevitable to transform the structure of the economy.

In developing economies public sector has to produce certain private goods which are considered to be important and which the private sector cannot produce due to lack of resources or technical enpertise. These goods may be produced by the public sector to establish strategic control over the economy. The role of public expenditure depends upon the nature of the economy and the political preferences of the government. As a result, the effects of public expenditure on different sectors of the economy depends upon the nature, purpose and size of public expenditure.

Identifying the factors responsible for the growth of public expenditure helps the government to formulate the suitable measures to control them. Analysis of the trends in the growth of public expenditure enables the government to decide the measures to control the pattern and magnitude of public expenditure. Public expenditure serves as an instrument or balancing factor to maintain stability in the levels of employment and prices. It may also help to minimise eventualities in the distribution of income in the society. We will examine the effects of public expenditure in this unit.

19.2 CAUSES FOR THE GROWTH FO PUBLIC EXPENDITURE

It is estasblished that with the increase in the functions of the government and the rate of growth of the economy, the governmental expenditure is also increasing in all countries. Infact, the index of pubic expenditure is the ratio of governmental expenditure to Gross Domestic Product or national Income. The basic causes for the growth of public expenditure are explained in detail by the theories of public expenditure discussed in the earlier UNIT. As pointed out by Wagner, public expenditure increases as a result of increasing economic activities of the government. **Peacock and Wiseman** mentioned that the increase in public expenditure is due to step like growth of industrial activity. However, the dynamic and complex nature of the modern economies find it difficult to restrain the growth of public expenditure for a variety of reasons. We shall study the causes one by one.

19.12.1 WAR AND MILITARY EXPENDITURE

The primary function of the state is to protect its citizens from external aggression and allow them to live in a society with freedom. For this purpose government has to spend on arms and ammunition to acquire military preparedness. War threats from neighbouring countries often necessitate upward revision of defence expenditure. The size of the defence expenditure depends upon the political relationships with other nations. Further, maintenance of law and order within the country is the important function of the Government. Internal security ensures the people of a country to have freedom for employment, enterprise and private property. Internal protection of the people involve public expenditure on police, security guards etc.

19.2.2 DEMOCRATIC SETUP - EXPENDITURE

Polity of many countries prefers transformation of administration into democratic setup. This requires the development of political in situations like parliament, legislatures, council of ministers, advisory councils, institutions to mobilise public opinion, conduct periodical elections at the national, state and local levels. Public expenditure on the maintenance of these institutions has been growing over time. All countries have adopted planning for economic growth. This involves implementation of many socio-economic programmes of development. The investment on various plan programmes intended to promote the well being of the people requires huge public expenditure.

19.2.3 PLANNED ECONOMIC GROWTH AND POPULATION CONTROLS

Planned economic growth results in increased levels of National Income over a period of time. Then it becomes necessary for the state to allocate increased amounts of funds or spend more funds to maintain higher levels of output and employment. Resources need to be mobilsed from internal and foreign sources to support higher levels of economic activity. Ever increasing population of the country expands the demand for goods and services. It becomes necessary for the government to provide public services by spending more. On the otherhand, government has to spend more on population control measures, family welfare schemes to maintain the 'health' of the community.

19.2.4 PROVISION OF PUBLIC SERVICES

Public goods and social goods are to be provided by the government as the private sector is not interested in them. Provision of public goods like roads, libraries, public parks, justice, flood control projects etc. become the obligation of the state which involve huge investment and expenditure. Government has to provide public utility services such as railways, posts and telegraphs, telephone, electricity, drinking water supply etc. They all involve huge expenditure by the public authority.

19.2.5 WELFARE STATE

In a democratic set up, development of human resources is of primary significance, government incurs expenditure on the provision of educational facilities and training of manpower. Investment on health care to promote the life expectancy, nutritious standards of the workers, provision of housing accommodation becomes the responsibility of the government. All these involve huge investment and public expenditure. Modern states assuming the role of welfare states have to provide social security measures like old age pensions, unemployment benefits, uplifting the socio-economic conditions of the weaker sections etc. Public expenditure on these programmes has been increasing enormously in many developing countries.

19.2.6 MAINTENANCE OF ADMINISTRATION

Assumptions of such large responsibilities by the government necessitated the maintenance of several administrative departments, expert civil administration and employment of trained personnal. As a result, public expenditure has been on the gradual increase. Government is also spending on the provision of in-service training to personnel already employed to increase their efficiency. As a consequence of, economic growth urbanisatin has been on the rise. The failure of rural areas and the primary sector to sustain the workers there has been rural-urban migration leading to the growth of cities and towns. The springing up of new urban habitations made maintenance complex. The public expenditure on old age pensions, sickness benefits, widows pensions and family benefits will increase the efficiency of the workers.

The benefits flowing from such expenditure are to be made conditional and are linked to the supply of work and effort to influence the willingness to work, save and invest resulting in increased production. Along with increase in production, the income of the workers increases and thereby their ability to save goes up. If government supplies the essential goods at subsidised prices the ability to save expands. The ability to invest will increase if these (savings) investable funds are placed in the hands of any agency whose business is to undertake capital expenditure.

19.4.2 DESIRE TO WORK, SAVE AND INVEST

Public expenditure acts through its effects on incentives or desire to work. The expectation of future benefits from public expenditure has an important influence on the desire to work. The expectations of people about the periodic and fixed and guaranteed incentives like war pensions, interest on war loans etc. will not increase their desire to work. Hence, these benefits are to be linked to the amount of recipient's future work and savings. However, some grants which will be paid in the event of sickness or a short while unemployment will raise the morale of the people and increases their desire to work.

19.4.3 DIVERSION OF ECONOMIC RESOURCES

Public expenditure acts through diversion of economic resources as between different uses and regions in a country. In otherwords, the diversion of economic resources into specific uses through public expenditure will increase production. Public expenditure may increase the economic benefits for future. For instance, debt redemption where must of the money repaid will be generally reinvested to reap future benefits. Long run benefits may be generated through public investment in many projects of irrigation and transport development which may be expected to yield large returns. Hence, increased public expenditure in many of these directions including investment in human capital like education, medical and health, social security schemes, Research and development to increase knowledge etc. is desirable to distribute community's resources between different uses. This will give the best results balancing the present and future without bias. Thus, public expenditure to encourage the consumption of selected goods and services may significantly increase production.

It is not necessary for the volume of new investment to coincide with the volume of new savings in any time period. The instability in the prices (inflation or deflation) is the main reason for the imbalance between new investment and saving. Public expenditure is required to create and maintain stability between these two. Thus, public expenditure may be used to control the trade cycles. Public investment may be directed to produce such services and output which form important inputs to other industries. Public expenditure acts through its effects on incentives to private sector industry.

In developing countries public sector assumes the task of developing not only the basic and key industries like iron and steel, cement, heavy engineering etc., but also many public utility services and socio-economic infrastructure. Thus, public investment in these industries provide large scale employment opportunities. Further, a mix of labour intensive and capital intensive industries established by the government creates employment opportunities to workers. Government expenditure on Research and Development to improve technology open up a considerable size of gainful employment in agricultural sector. Expenditure on allied agricultural activities like diary, poultry development, fishing also creates additional employment.

Public expenditure incurred on the development of infrastructure like transport and communications, power generation etc. favour the establishment of private industries also and provides employment in them. Anxillary industries also may come up in the private sector to supply raw materials, space parts, and equipment etc. to these industries. Public expenditure may reduce regional imbalances by offering incentives and subsidies to industrial units that are located in backward areas. Thus, entrepreneurs are encouraged to open up new industries and provide employment opportunities in backward regions.

19.5 EFFECTS OF PUBLIC EXPENDITURE ON DISTRIBUTION

Public expenditure acts directly and indirectly though its effects on the distribution of income in the society. That system of public expenditure is the best which has the strongest tendency to reduce the inequality of income in the society. The principle of public expenditure in the form of distribution of grants is governed by the principle of maximum benefit while the distribution of taxes is governed by the principle of maximum sacrifice. A properly planned public expenditure diverts resources from rich to the poor and benefits the weaker sections of the poor and benefits the weaker sections of the society to reduce the inequalities in the distribution of income and wealth.

The issue of subsidies may be looked upon as the effects of public expenditure from the point of view of expenditure. A subsidy that reduces the prices of milk and bread (necessaries) may operate as a progressive grant to the poor. In case of great inequalities in income this case for progressive subsidies is strengthened. Similarly, food subsidies are also progressive in so far as the subsidised food forms a larger proportion of expenditure of the poor people than the rich. These subsidies may be general or special in their character. Subsidies are said to be general in their character if they reduce the price of any particular food item, no matter who uses it. The case for general subsidies on food items is strong, but identification of a food item as general depends on political and psychological considerations.

Subsidies are said to be special if they concentrate on protective or nutritional foods consumed by selected groups such as nursing mothers, babies, young children going to primary and secondary schools. The case for these special subsidies is always strong. This is a case for the principle of distribution of benefits according to the ability to receive. Here, determining the purpose of subsidy and the selection of the items for extending subsidy are important. It the purpose of subsidy on a particular commodity is to increase its consumption then the commodities with elastic demand are to be selected for giving subsidy.

The effects of grants on distribution may be modified by examining their reactions on the individual incomes. If the guarantee of a grant causes a person to work less or save less than earlier the effect of grant in increasing his income will be diminished. On the otherhand, if the guarantee of a grant causes a person to work more and save more than earlier the effect of grant in increasing his income will be increased.

Public expenditure acts indirectly through its effects on the distribution of income. Sufficient public expenditure on education and training may enable the younger generation to improve their skills to move from low wage occupation to high wage occupation. This will contribute considerably to increase their wage income and thereby reduce the differences in income distribution. Thus, grants may increase the level of income distribution in the society by reducing inequalities of income. Provision of security benefits enable the people to adjust their individual and family incomes to individual and family needs in different periods of life. These security benefits include oldage pensions, sickness benefit, unemployment benefit, industrial injury benefit, widow benefits, childhood allowances, free health services etc.

Certain grants may confer common benefit on all members of the society. Expenditure by local bodies on social overheads such as construction of a market may increase the value of fixed property around it and benefit the land owners. Public expenditure on roads benefit motor vehicle uses, expenditure on public parks confers common benefit on all those who use it. Similarly, the government expenditure on public health services confer benefits commonly on all people. The combined effects of public revenue and public expenditure on distribution varies significantly from one type of government to another type of government and from one time period to another time period.

19.6 EFFECTS OF PUBLIC EXPENDITURE ON ECONOMIC GROWTH AND STABILISATION

The effects of public expenditure on production also represent their impact on economic growth. In reality economy growth is a result of increase in National output or production. The extent of increase in production from public expenditure depends upon its influence through its effects on willingness to work, save and invest. Public expenditure increases the productivity of workforce and thereby contributes to a rise in the national output and economic growth. In a market economy, allocation of resources and the rate of progress of different regions differ from one another. Public expenditure directs the investment into productive activities in backward regions. Government encourages the entrepreneurs through incentives like tax exemptions and supply of subsidised raw materials, electric power transport to setup industries in backwards regions. When industrial development takes place in backward regions, geographical disparities relating to economic growth narrows down. Economic growth depends upon present investment for increased future consumption. Public expenditure diverts the resources from present consumption to future consumption. Economic growth can be ensured for the future through public investment in the construction of multipurpose projects, electricity generation plants, roads and railway net work etc.

In developed countries the rate of economic growth is maintained through investment activity and stabilisation. Public expenditure may be used as a compensatory measure to maintain economic stability. It means maintaining the same level of income, prices and employment in the economy. Compensatory mechanism refers to that device by which economic instability can be minimised. During depressions public expenditure increases the purchasing power of the people and expands the aggregate demand for goods and services. This leads to an increase in the price, profits and aggregate output of the economy. Keynes advocated that direct public investment should continuously pump into the economy additional purchasing power to activate it during depression. On the otherhand, during inflation there will be excess demand and continuous rise in prices. Then the purchasing power in the hands of the people is to be reduced by reducing public expenditure, postponing the construction of public investment projects, withdrawing all concessions, incentives and subsidies. All this helps to be reduction to the aggregate demand and the price level. Thus, changes in public expenditure greatly helps achieving economic stabilisation.

19.7 OTHER EFFECTS OF PUBLIC EXPENDITURE

There are many otherways in which well directed public expenditure may achieve good results. Some of the most important of these are linked with planning the best use of land. Public expenditure is to be directed to disperse the concentrated population in big cities facing problems of transport, pollution, waste of time in travel etc. Public expenditure is to be used to create small new townships more spacious and convenient than the old, redistribute population and employment away from big cities.

Sometimes, the cost of public administration is excessive in relation to the results obtained. If the cost of administration is greater than it need be in order to obtain the desired result, this is equivalent to a loss of production through waste of labour and materials. Hence, proper management of public expenditure is necessary to maximise the benefits from its use.

19.8 SUMMARY

Public expenditure increases as a result of increasing economic activities of the government. The increase in public expenditure is due to step like growth of industrial activity. Resources need to be mobilised from internal and foreign sources to support higher levels of economic activity. Provision of public goods like roads, libraries, public parks, justice, flood control projects etc. becomes the obligation of the state which involve huge investment and expenditure. The public expenditure on the provision of civic amenities like good roads, electricity, water supply and other essential services has been increasing gradually. In times of natural calamities and disasters it becomes obligatory for the government to spend large amount o funds on relies and rehabilitation works.

In many developing economics, including India, public expenditure has grown at a faster rate than the growth of gross domestic product. Public expenditure influences the level and direction of production and employment, the pattern of distribution of income and the pattern of economic growth. Public expenditure involves transfer of purchasing power with in the economy and it increases the productive capacity of the country. Public expenditure acts through its effects on the ability to work, save and invest.

Public expenditure may increase the economic benefits for future. Public expenditure acts through its effects on incentives to private sector industry. A properly planned public expenditure diverts resources from rich to the poor and benefits the weaker sections of the society to reduce the inequalities in the distribution of income and wealth. Public expenditure directs the investment into productive activities in backward regions. Public expenditure diverts the resources from present consumption to future consumption.

19.9 CHECK YOUR PROGRESS

I. Answer the following questions in about 4 or 5 lines each.

1. Identify the reasons for the growth of public expenditure.
2. How does public expenditure affect ability to work, save and invest?
3. How is public expenditure useful in developing economic resources for improving efficiency?
4. How can economic stability be achieved by using the instrument of public expenditure?
5. How does the Public Expenditure influence the income distribution?

19.10 GLOSSARY

Expenditure on Public Goods : The expenditure incurred by the government to provide public goods namely the goods required by the people such as roads, libraries, parks, flood control measures etc.

Expenditure on Public Utility Services : The expenditure incurred by the government to provide services like railways, telephones, posts and telegraphs, electricity drinking water etc.

Revenue Expenditure : Expenditure incurred by the government to pay the interest charges, general services like police and courts, social services like education, medical and healthcare, economic services like irrigation facilities, forest, mining etc.

Capital Expenditure : Expenditure incurred by the government to establish Multipurpose projects, capital goods industries etc.

Investment in Human Capital : Expenditure incurred by the government for providing education, health social security measures etc.

Expenditure on Infrastructure : Expenditure incurred by the government to provide social overheads, that facilitate economic growth, such as transport and communications, power generation, banking services etc.

19.11 MODEL EXAMINATION QUESTIONS

I. Answer the following questions in about 30 lines each

1. Explain the causes for the growth of public expenditure.
2. Give an account of the growth of public expenditure in a developing countries.
3. Describe the effects of public expenditure on production and distribution.
4. Discuss how economic growth and stabilisation are affected by public expenditure?

II. Answer the following questions in about 15 lines each

1. What are the economic reasons for the growth of public expenditure?
2. How public expenditure influences the production?
3. Explain the effects of public expenditure on employment?
4. How public expenditure promotes economic growth?

19.12 SUGGESTED BOOKS

1. A.C. Pigou : **A Study in Public Finance,** Macmillan, 1928.
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UNIT - 20 : PUBLIC DEBT : NATURE AND BURDEN

Contents

20.0 OBJECTIVES

The important objective of this unit is to explain the public debt.

After reading this unit, you will be able to:

- explain the evolution of public debt.
- examine the need for public debt.
- describe the classification of public debt.
- discuss the burden of public debt.

20.1 INTRODUCTION

In a budgetary sense, the receipts of the government in a year are divided into revenue receipts and capital receipts. Revenue receipts include tax and non-tax revenue collections for which the Government is under no obligation to return the money from loans, borrowings from Reserve bank of India, loans from foreign government, international institutions that carry with them the obligation on the part of the government to pay back these amounts with interest form whom it was collected. Such type of borrowings are termed as public debt. Generally, public debt is in the form the bonds and treasury bills that carry with them the promise or assurance of the government to pay interest to the bond holders at a prescribed rate.

Generally, Government resort to Public borrowing when the revenues fall short of the expenditure in a year. Government may raise loans to meet a variety of requirements from time to time. It can also raise debt from different sources both internally and externally. A variety of instruments like bonds, certificates, securities are issued by the government to borrow funds. Public debt is raised mainly to meet the budget deficits and also to finance the welfare programmes. Though public debt forms a part of the capital receipts of the budget, the payment of interest on the public debt a change on the revenue expenditure of the budget.

20.2 CONNOTATION OF PUBLIC DEBT

In market economies during the 18^{th} century, states were discharging the essential duties of protecting their citizens from external aggression and other threats. Hence, revenues were mobilised to meet these protective measures, classical economies held the view that the state interference in the market mechanism was to be minimum. However, during the nineteenth century many 'police' states assumed the role of 'welfare' state and have been striving to promote the well-being of their subjects. For this a wide variety of programmes have been designed and implemented by incurring massive expenditure. As a result, the need for mobilising additional revenues stepped up.

Many democratic governments started borrowing from many sources to supplement their revenues to meet the expanding expenditure requirements. Further, many developing countries resorted to public borrowing to implement their planned developmental programmes. This public debt has become a popular device to finance the plan programmes. In modern times, along with taxation, public borrowing has emerged as a normal method of raising revenues. The changing economic and political institutions necessitated public borrowing. According to J.K Mehta, public debt is a modern phenomenon and democratic institutions aimed at the well-being of the people.

Broadly, public debt relates to all kinds of obligations of the government. Infact, it depends upon the purpose and nature of arrangements made for borrowing funds. According to Findlay Shirras, " National debt is a debt which a state owes to its subjects or to the nationals of other countries " J.K.Mehta explained the nature of public as it carries with it the obligation on the part of the government to pay money back to the individuals from whom it has been obtained". The forms of raising public debt are many and varied. In the words of P.E.Taylor " debt is the form of promises by the treasury to pay to the holders of these promises a principal sum and in most instances interest on that principal".

Based on the effects and role of public debt in economic development different economists viewed public debt in different ways. Classical economists advocated that the public expenditure is to be minimum and hence they favoured taxation to borrowing. However, they favoured public debt to finance productive activities like capital projects that yield benefits to the society. J.S.Mill propounded the view that public debt should function as a balancing wheel of the economy. Public debt may be used on the expenditure projects that increase the future income and tax-base. R.A.Musgrave felt that such projects permit servicing of the debt incurred in their financing without requiring on increase in the future level of taxes.

Along with the public sector it is essential to stimulate the private sector to provide additional employment and additional output. Keynes was of the opinion that the utilisation of unemployed resources by using public debt automatically raises the level of aggregate income and output. A.P. Lerner argued that in the event of falling aggregate demand and shortage of funds for productive investment, government should lend to the private sector of increase its own expenditure to arrest the fall in real income and employment, however, he cautioned that the desirability of public borrowings should be judged in terms of its effect on aggregate demand. R.A. Musgrave held the view that current budget should be tax financed while capital budget should be loan financed. Raja Chelliah observed that the ideal situation is one in which revenues will meet subsidies and greater part of current expenditure while debt financing will be used for meeting the governments. Non-remunerative capital formation etc.

20.3 NEED FOR AND SOURCES OF PUBLIC DEBT

In developing countries, government revenues may fall short of their expenditure many times. Hence, many governments are forced to borrow from different sources to finance their developmental programmes. Public debt has become necessary to meet various requirements and temporary deficits of the developing economies. Underdeveloped countries suffer from their problems like low agricultural productivity and the pressure of increasing population. Many developing nations, at least at the beginning of initiating development planning, imported food grains through borrowing. For any government it becomes necessary to meet the sudden spurt in the government expenditure in times of war and natural calamities. In modern times also, governments are mobilising additional revenues and also borrowing from different sources to finance war operating and natural calamities.

Governments in developing countries are committed to planned economic development. The financing of developmental programmes of the plan require large amount of funds. Multi purpose project and long gestation projects that yield benefits in the long run, require massive investment. These projects are to be financed by public debt. Modern governments assumed the role of welfare state which resulted in the expansion of the functions of the government. It became obligatory for the governments to borrow funds to finance many welfare programmes that promote the well-being of the people, like investment in education and health care in the society.

The commitment of the government to promote the rate of growth of the economy resulted in the expansion of public sector units and investment. Massive investment in public sector commercial enterprises have been financed by public debt. It has become obligatory for the government to provide infrastructure facilities to facilitate rapid rate of economic growth. In view of the limited revenues of the government, infrastructure facilities are provided largely through public borrowing.

Overriding political considerations are forcing the governments to refrain from mobilising adequate tax and non-tax revenues. As a result, the tax-GDP ratio has been declining and thereby widening the gap between Government expenditure and revenue. Further, the expenditure policy of the governments failed to contain the growth of non-development expenditure. As a result, governments find it difficult to expand the capital expenditure which is productive in its nature. Hence governments are resorting to heavy borrowings from external sources also.

The classical doctrine of ' Sound finance' requiring balanced budget has been replaced by the principle of 'managed budget' which can be a deficit one. The volume of government expenditure in excess of tax and non tax revenue results in a deficit. According to Bernard P. Herber, the deficit budget provides fundamental precondition for debt creation. This process has left most of the governments in the developing countries with large outstanding debts. To quote to Eickstein "interest is to be paid on these debts and when the bonds expire they have to be repaid or refinanced through new borrowings".

The sources from which government borrows funds may be classified into internal sources and external sources. Market loans and loans raised in the capital market constitute internal loans. Government raises loans from the public by issuing bonds and certificates of fixed maturity value. It also raises loans through post-offices by mobilising funds through small savings schemes. The major source of borrowing to the government is Reserve bank of India which purchases the government bonds on a large scale. Further, commercial bonds also lend money to the government by purchasing these bonds from Reserve Bank of India. The government securities are purchased in the capital market by individuals, private corporate agencies and non-banking financial institutions like Unit Trust of India, Life Insurance Corporation of India etc.

Loans raised by the government from foreign sources are known as external debt. Government may borrow from foreign investors, foreign governments, foreign financial institutions etc. Many a time government borrows heavily from international Financial Institutions like IMF, World Bank. Government also mobilises off-shore funds by floating securities in the international financial markets. Government is raising loans from non-resident Indians by attracting them to deposit their funds in some special accounts convenient to them.

20.4 CLASSIFICATION OF PUBLI C DEBT

Government borrows from many sources to meet its many and varied obligations. Public borrowings differ from one another on the basis of source of borrowing, purpose of borrowing, nature and conditions of borrowing, time of repayment etc. Hence, public debt is classified into many categories. The following are some of the types of public borrowings.

20.4.1 INTERNAL DEBT AND EXTERNAL DEBT

A loan is internal, if subscribed by persons of institutions within the area controlled by the public authority which raises the loan. In other words, internal loan refers to the funds borrowed by the government from its citizens; financial institutions and other agencies within the geographical area under its control. Loans borrowed by the government from Reserve Bank of India, commercial banks, loans raised in the market at a given rate of interest, funds mobilised through small savings, postal savings etc. And amount collected by selling the bonds to the public constitute the total internal debt. Interest is to be paid on all these loans. It is argued that National income remains the same in spite of interest paid to the public. Government is collecting taxes from the public. Government is collecting taxes from the public and paying interest to the public. Money is transferred from Government to public and vice-versa. Hence, the national income and productive capacity remain unaffected.

A loan is external, if subscribed by persons or institutions outside the area controlled by the public authority which raises the loan. In other words, external loan refers to the funds borrowed by the government from agencies, financial institutions, multinationals outside the geographical area under its control. Loans borrowed by the government from foreign individuals, foreign banks, foreign governments, international financial institutions like IMF, IBRD, IFC etc. constitute external borrowing. Interest is to be paid on these debts. It is argued that the National income and the productive capacity of the counters goes down as the interest amounts paid flows out of the counters. However, external debt also benefits the borrowing country, if used productively to generate additional income in excess of interest payments on the loan.

20.4.2 COMPULSORY DEBT AND VOLUNTARY DEBT

Compulsory loan is a forced loan which is a rare practice in the modern transactions of public finance. In this case, government may have to exercise its pressure for raising loans during the emergencies. Sometimes, the purpose of compulsory loan may be to reduce the purchasing power in the hands of the public during the period of inflation. In reality compulsory loan lacks the advantage of a tax and on the other hand, it combines the disadvantages of a voluntary loan. Tax amount need not be repaid to the public by the government and hence compulsory loan has no such advantage to the government. On the other hand, government has to repay the loan amount along with some interest after some time period.

Generally, government debt is of voluntary in nature and this is the comparative in the modern transactions of public finance. Individuals and institutions are invited to purchase the government bonds and securities. The advantage of voluntary loan is that different lenders are free to subscribe as much or little as they please according to their circumstances and inclinations, repurchase government securities voluntarily

For the reasons, of security, income return and liquidity, Hence, the loans raised by the government in the market are increasing over a period of time.

20.4.3 PRODUCTIVE LOANS AND UNPRODUCTIVE LOANS

This classification of productive and unproductive debt is related to the purpose for which it is utilised. If the construction of major and multipurpose projects that yield tangible and intangible benefits and outcome of the loan is said to be productive. Such investments results in yielding additional income both to the public (direct benefits in the form of benefits) and to the government (indirectly in the form of tax on increased income). The annual income derived from these projects may exceed the annual interest and annual principal repayment amounts. Thus, the debt may be repaid within the physical life time of the created asset or project. Productive loans invested in capital goods industries contribute for an increase in production. Infact, this is the purpose of 'Functional Finance' advocated by A.P.Lerner.

If the government used the funds borrowed to finance the needs and activities that don't generate additional income the outcome of the loan is said to be unproductive. For instance, public debt is used to finance war, meet the expenditure on emergencies like floods, earthquakes and droughts no additional income will be generated. Similarly, the utilisation of debt for meeting the revenue deficit (Payment of establishment charges) of the government budget, debt turns out to be unproductive and becomes a burden on the public Authority. It fails to create any asset to the country and becomes a dead weight debt. The interest amount on such loans is to be paid from tax revenues.

20.4.3 SHORT TERM AND LONG TERM LOANS

Distinction between these loans is tagged to the duration of repayment of debt. These loans are also known as unfunded debts and funded debts. Short term loans (unfunded) are called 'dated stocks' as they are to be repaid in 3 months or at most one year. Treasury bills issued by the Government are unfunded debts because they are to be cleared in 3 months or 6 months. In other words, the obligations of short-term or unfunded debts are of a maturity of less than one year at the time of issue.

Long term loans or funded debts are called "undated stocks". Such may be repaid at the option of the government at a fixed date or after words. But, there is no fixed date at which government must repay these loans. In this case, government obligation is to pay a fixed sum of interest to the creditor, subject to the option of the government to repay the principal amount. Hence, the debt becomes a permanent debt. However, long term debt turns into short term debt as its final date of repayment approaches.

20.4.5 REDEEMABLE DEBT AND IRREDEEMABLE DEBT

Debt that is to be repaid after some future date is called redeemable debt. Government has the obligation to pay the interest and principal amount on some future date on redeemable loans. Government have to make some arrangement for its repayment. Generally these loans are paid off from the tax revenues and if necessary government may raise additional revenues through additional taxation. Depending on the period of repayment these loans may be classified into short-term, medium-term and long-term loans.

The loans for which governmental promise of repayment at some future date is not specified are called irredeemable debt. Some of these loans are non-terminable (Permanent) so that the government is only to pay the interest and not the principal amount. Some of these loans are also known as floating debt. They may not have any specific maturity but part of it may be repayable on specific terms and conditions. Provident funds, small saving funds, reserve deposits are the example of such irredeemable loans.

20.5 BURDEN OF PUBLIC DEBT

The burden of public debt is represented by the economic hardships it imposes on different sections of the economy. Debt burden may take the two forms. One, waste of productive efficiency for the economy as a whole. Second, undesirable economic burdens imposed on some classes or sections of the people. The burden of public debt is related to the burden of interest payments and the burden of principle repayment' The main burden of public debt is the total loss incurred in connection with the transfer of purchasing power involved in interest payments. These costs are partly money costs and partly subjective costs. In order to pay the interest charges on public debt government has to increase the level of taxation. Thus, money income of the people is transferred to the government consequent loss of this income of the people is called financial burden or primary burden of public debt. Taxation to pay a given amount of interest amount in depression will be far more burden some than in prosperity.

Popularly too much importance is attached to the principal of public debt. However, there are elements of burden, which may vary, with the size of the principal. The efforts to reduce the principal of debt may involve many kinds of burden. The raising of taxes for the repayment of principal amount will affect the willingness and ability to save of the people. On the other hand, reduction of expenditure on useful governmental function to repay the principal amount will impose burdens upon prior beneficiaries of these functions and will affect their willingness and capacity to work. However, the intensity of debt burden is determined by the size of the National income, nature of the tax system and the degree of dispersion of security (loan) holdings.

20.5.1 VIEWS OF ECONOMISTS ON THE BURDEN OF PUBLIC DEBT

In the eighteenth century public debt was favored by mercantilists as they had greater faith in the role of the state. The early classical economists opposed public debt creation on the ground that government spending is wasteful and does not provide any benefit to the community. The later classical economists considered the mutual advantages of public debt to the government and lenders. Economists led by J.M. Keynes completely discussed the question of the burden of public debt on the basis of income creating potentialities of public debt. A.P.Lerner held the view that national debt is on instrument to achieve full employment.

Economists expressed diverse opinions on the issue of shifting of debt burden to future generation. A.P.Lerner and P.A.Samuelson held that a debt burden might be shifted to future generation only if the present generation reduced its rate of savings as a result of debt creation activity. James A.Buchaman established that the real burden of public debt is shifted to future generation, the analogy between public and private debt is fundamentally correct and the external and internal debts are fundamentally correct and the external and internal debts are fundamentally correct.

A modified version of Buchaman's version is presented in two ways by Bowen, Davis and kopf. 1) They said that the debt burden is not transferable. If the real burden of the debt is defined as the total amount of consumption goods given up by the community and if the borrowed funds are spent on the cost of the public project must be borne by the generation t the time, the borrowing occurs. 2) They also said that debt burden is transferable. If the real burden of the debt to a generation is defined as the total consumption of private goods foregone during the life time of that generation as a consequent of government borrowing and attendant public spending the burden will be shifted to future generation.

C.Shoe argued that the future generation does not inherit the same amount of capital stock that it would have inherited had the debt not been incurred. R.A.Musgrave argues that loan finance necessarily spreads the burden among different generations while tax finance causes the present generations to bear the burden. Franco De Modigliani suggested that inter-generation burden analysis should concentrate upon the stock as well as flow variable and long run as well as impact effects.

20.5.2 BURDEN OF INTERNAL DEBT

Internal burden may not involve any direct or money burden on the community since the payment of interest and the increased taxation to meet the burden of debt results in a transfer of purchasing power from one section of people to another further, the extent to which tax payers are also bond holders there may not be net burden on the community to that extent. A high national income as a ratio of debt reduces the burden. A.P. Lerner felt that internal debt is an instrument to achieve full employment. Interest payments on national debt may not be a burden on the nation because it is not a loss to the nation and the nation cannot be made bankrupt by internal debt. National debt is not a burden on the nation if the interest and debt amounts are collected from the tax payers who receives the benefits, if is not a burden on the future generation because future generation pays the debt at a time when benefits accrue to them from long gestation projects financed by national debt.

However, the real nature of the burden of internal debt depends on how the burden of debt is defined. If the burden of debt is measured in terms of economic stresses and strains due to raising of additional tax the burden of debt is measured in terms of economic stresses and strains due to raising of additional tax to service the debt, increased taxation may consequently affect the willingness and capacity to work and save. If the burden is viewed in terms of reduction of income inequality then internal burden imposes a burden on the society. Generally, debt (bond) holders belong to richer classes while tax payers belong both to the rich and poor class tax payers to rich class bond holders.

If the burden of public debt is viewed as a ratio of total debt to national income as explained by Domar, the burden of debt varies in relation to the variation in National income. If the National income increases in a proportion less than that of public debt, internal debt becomes a burden on the nation. Edward Nevin held the view that the question of public debt is irrelevant since the whole purpose of increased debt is to expand national income. In other words, public debt plays a very significant role in mobilising resources for undertaking a higher volume of investment.

Several economists have tried to show that there are several advantages, which off set the existence of public debt. The National debt becomes a kind of national insurance system to which we all contribute as tax payers and from which we all receive the benefits of insurance against instability. A.P. Lerner also said that the only alternative to debt is depression or widespread poverty. It is noted that there is no money burden of internal debt because money involved in public debt is transferred from one section of the people to another. However, there is a real burden of public debt as money involved in public debt is diverted from poor class tax payers to rich class bond holders. On the other and, if public debt is used to finance the construction of productive assets like railways, roads, irrigation projects, capital goods industries there will be no real burden of internal debt. Thus concept of the burden of internal debt is vague in developing countries and public debt is very essential for productive development.

20.5.3 BURDEN OF EXTERNAL DEBT

An external loan involves transfer of wealth from the lending country to borrowing country when the loan is made and from borrowing country to lending country when the interest is paid and principal is repaid. In a sense, the burden of external debt is similar to that of internal debt. To quote Dalton " as a general rule an internal debt is likely to involve an additional and indirect burden on a community, an external debt does the same". In anther sense, the burden of external debt is greater to that of internal debt because external debt imposes both money burden and real burden on the community.

The money burden of external debt is the money payments that have to be made for the interest charges and repayment of principal amount. These payments flow out of the country by reducing the net income of the borrowed country. Thus, external debt imposes a greater money burden on the debtor nation. Sometimes, creditor country could put political pressure on the debtor nations and could create ample ideological influence on them.

The real burden of external debt may be classified into direct real burden and indirect real burden. The external debt used for unproductive purposes like financing wars, calamities and other relief works turns out to be a dead weight debt on the community. As a result, the indirect real burden of external debt affects the country through a reduction in its productive capacity.

The direct real burden of external debt is the net loss to the debtor country in terms of economic welfare or reduction in the consumption level. When the external debt is to be repaid and serviced, the payments are to be made in foreign country's currencies. For this foreign exchange is to be earned through exporting more than import of goods. Exporting more goods means reducing the consumption level at present. This sacrifice of consumption reduces the real income and economic welfare. This is the direct real burden of external debt. In the words of A.P.Lerner the borrowing country will have to consume less in order to clear the debt and debt servicing.

The developing countries have to assess the effects of external debt and have to decide on the size and nature of external debt to be raised from foreign sources. Infact, the real burden of external debt depends upon the purpose for which the debt is raised. As discussed earlier, if the external debt is used for the purpose of meeting war expenditure its burden will be more. If the external debt is used for setting up capital assets like projects and industries that will directly enhance the production and productivity. Then debt servicing charges and repayment can be made from the income earned from the assets which improves the conditions of the economy. However, in many developing countries the magnitude of external debt reached that level which put them into a debt trap. Infact, they are finding it difficult to service the external debt without raising additional loans from foreign sources.

20.6 SUMMARY

Public debt relates to all kinds of obligations of the government. It depends upon the purpose and nature of arrangements made for borrowing funds. The financing of developmental programmes of the plan require large amount of funds, the commitment of the government to promote the rate of growth of the economy resulted in the expansion of public sector units and investment. Massive investments in public sector commercial enterprises have been financed by public debt.

The sources from which government borrows funds may be classified into internal sources and external sources. Government raises loans from the public by issuing bonds and certificates of fixed maturity value. A loan is internal, if subscribed by persons of institutions with in the area controlled by the public authority which raises the loan. A loan is external, if subscribed by persons or institutions outside the area controlled by the public authority which raises the loan.

Debt burden may take the two form, one waste of productive efficiency for the economy as a whole. Second, Undesirable economic burdens imposed on some classes or sections of the people. Loan finance necessarily spreads the burden among different generations while tax finance causes the present generations to bear the burden. If the burden of public debt is viewed as a ration of total debt to national income as explained by Domar, the burden of debt varies in relation to the variation in National income. If public debt is used to finance the construction of productive assets, like railways, roads, irrigation projects, capital goods industries there will be no real burden of internal debt.

20.7 CHECK YOUR PROGRESS

I. Answer the following questions in about 4 or 5 lines each.

1. Distinguish between the productive and unproductive loans.
2. Explain the concepts of the followings.
3. Explain the incomes of public debt.
4. Distinguish between the internal and external debts.
5. Explain the debt burden.

20.8 GLOSSARY

Public Debt : The total borrowings of the government from internal and external source.

Internal Debt : It is a sum of loans borrowed by the government from all sources within the economy.

External Debt : The sum of funds borrowed by the government from foreign bank, international finance institutions and multinationals.

Debt Burden : It is related to the burden of interest payments and the burden of principal repayments.

Primary Burden : The amount of money collected from the public through taxation to repay the interest and principal repayment debt.

20.9 MODEL EXAMINATION QUESTIONS

I. Answer the following questions in about 30 lines each.

1. Define Public debt and examine the need for raising debts by the Government.
2. "Internal debt is not a burden on the Nation"-discuss.
3. Describe the burden of external debt on the economic growth of a developing country.
4. Explain how public debt is not a burden on the posterity.

II. Answer the following questions in about 15 lines each.

1. Describe the classification of public debt.
2. Explain the sources of internal debt.
3. State Buchaman's views on debt burden.
4. Explain the direct real burden of external debt.

20.10 SUGGESTED BOOKS

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- Prof. K. Nageswara Rao

UNIT-21 : REDEMPTION OF PUBLIC DEBT

Contents

21.0. OBJECTIVES

The important objective of this unit is to explain redemption methods of public debt.

After reading this unit, you will able to:

- analyse the effects of public debt;
- measure the burden of public debt;
- discuss the management of public debt;
- describe the public debt policy;
- explain the methods of debt redemption.

21.1 INTRODUCTION

In developing economies the dependence on public debt is increasing over a period because debt has become an inevitable evil. However, a developing economy has to decide upon the magnitude of public debt and the sources from which it can be raised. It is essential for borrowing countries to assess the effects of public debt on various sectors of the economy. Further, it is important to estimate the burden of public debt and its viability to expand or redeem it.

Here the management of public debt assumes immense significance and calls for an efficient public debt policy to derive the benefits of public debt. However, many problems and difficulties in the implementation of public debt policy hamper its performance. Effective measures are to be initiated to strengthen the debt policy to reap the advantages of public debt to promote the economic growth. Debt policy has to function in coordination with the monetary policy and fiscal policies of the nation to make debt finance a functional finance or compensatory finance. When the benefits from public debt exceed its costs to the nation, debt is to be redeemed. The redemption of debt is to be applied as a last resort by developing nation. Appropriate mechanism to be followed needs to be " redemption of one debt creates another debt" until public debt is productive in the process of economic growth.

21.2 EFFECTS OF PUBLIC DEBT

In developing countries the public debt is raised to finance the development programmes envisaged in the plan. However, the size of public debt raised by the government depends upon the absorptive capacity of the economy and the productivity of the borrowed funds in expanding national income. In other words, debt will result in various kinds of effects that may be categorised into favourable and adverse effects. The effects of public debt are widespread through out the economy but they will have specific influence on the economic position of lenders and people benefited from debt financing. Thus the nature of debt effects and their estimated gains and losses indicate where a debt is to be continued or redeemed or terminated.

21.2.1 FAVOURABLE EFFECTS OF PUBLIC DEBT

One of the conditions of economic growth is the existence of large non – modesties sector. When government borrows from the Reserve Bank of India and commercial banks financial transactions develop as a result of debt creation. The existing unutilised economic resources and idle man power will be activated by the government spending. More specifically; financing of the investment projects to provide infrastructure in agriculture and industry will have a favourable effect on income and economic growth. Public debt works as a compensatory fiscal device to attain economic stability. During the period of deflation and unemployment purchase of government securities by Reserve Bank of India and commercial banks result in credit expansion. This will have on expansionary effect on the economy. On the other hand, sale if government securities by Reserve Bank of India to the people results in a reduction in the purchasing power in the hands of people. This will have a contractionary effect on the economy. Thus, public debt acts as an anti-cyclical fiscal policy to store economic stability.

Public debt acts as a powerful tool to regulate the economy, more specifically, the capital market that channelises funds from savers to investors. The rate of return and the liquidity facility on the government securities expands the size and magnitude of investible funds in the economy. Public debt also influences the allocation of economic resources through choice pattern of investing borrowed funds. Public debt used to set up industries more useful goods increase the benefits and investment in infrastructure projects in backward regions contribute for reduction in regional economic disparities. Thus, loans used to finance capital assets and major projects yield long term benefits for economic growth.

If public expenditures are to be financed by taxation only, there will be heavy burden on the tax payers. Moreover, with increasing public expenditure the burden on taxpayers also increases. Financing of developmental expenditure by public debt relieves the burden on the tax payers and helps them to save more. Loan finance will reduce the tax-income ratio. If government borrows loans from lower income groups (small savings) and market loans are serviced and repaid through taxation of the richer classes, public debt serves as a means of redistribution of income reduces the inequalities in income distribution. According to Hansen " In so far as the government can borrow from small savers, an increase in public debt will not prove unfavourable to an equitable distribution of wealth."

Public lend their funds voluntarily. If public purchase government bonds with funds that would have otherwise been invested, their consumption is not affected. However, they can adjust their pattern of expenditure to purchase the government bonds. It is recognised that the effect of public debt on consumption can not be determined precisely. Public debt affects the consumption of the people debt affects the consumption of the people in different ways. The possession of bonds makes the bondholders think themselves rich so that consumption of the people may not decline.

When the expected rate of return on the investment of borrowed funds exceeds the rate of interest to be paid on the debt, public debt is said to be advantageous to a developing country. This is the ground on which public debt was justified by A.P.Lerner in the form of functional finance. Further, it is argued by A.P.Lerner that if future generation pays the debt it is paying at the time when benefits acrue to them from long gestation projects financed by national debt, it is not a burden on them.

21.2.2 ADVERSE EFFECTS OF PUBLIC DEBT

Depending upon the purpose for which it is used, public debt produces adverse effects on different sectors of the economy. Hence, developing countries have to be cautious in the utilisation of public debt. Rapid rise in the public debt has deep repercussions in the adverse effects on the capacity and willingness to save. According to A.P.Lerner, increase in the national debt can make the owner of government securities to work less. Similarly, increasing taxation for debt servicing reduces the capacity to save of the tax payers. If the tax payers are richer class who don't enjoy the benefits of public expenditure financed by loans, their willingness to work and save get affected.

To quote A.C.Pigous existence of large debt means holding of wealth by individuals in the form of securities, people feel that they are richer and are tempted to spend more on luxuries. This expenditure unproductive in its nature, automatically affects the propensity to save which is harmful in developing economies. Kaldor's effect states that public debt weakens the incentive to invest as a result of additional taxes to service public debt. Holding of bonds by public increases the consumption expenditure which results in inflation and to counter it additional taxation becomes necessary. Rapid rise in the public debt affects the confidence of the people in the securities investment.

21.3 MEASUREMENT OF THE BURDEN OF PUBLIC DEBT

A.P.Lerner advocated that public debt is to be judged on its merits or the effects on different sections of the people. Estimated debt burden serves as an indicator to assess the burden of debt. Infact, magnitude of debt burden enables the government to take up suitable efforts to mange the debt and also to formulate and design a Debt policy. Adequate steps are to be initiated by the government to control the effects of public debt. Ultimately it guides the government on the matters of redemption of public debt various methods have been developed to estimate the relative burden of public debt in a country in different times.

21.3.1 DEBT – INCOME RATIO

It is the ratio of total debt to the National income of the country in a year. This ratio indicates the strength and efficiency of the economy in terms of National income in relation to public debt. When national income increases adequately to repay the public debt, it will not be a burden on the Nation.

$$\text{Debt – Income Ratio} = \frac{\text{Total Public Debt}}{\text{National income (at current prices)}}$$

21.3.2 DEBT – SERVICE RATIO

It is a ratio of annual interest payments on public debt to the National income at current Prices. This indicates the rate of additional taxation to be levied to pay the interest charges on debt. If the rate of increase in National income exceeds the rate of increase in the payment of interest charges, it will not be a burden on the Nation.

$$\text{Debt – Service Ratio} = \frac{\text{Annual interest payments on public debt}}{\text{National income (at current prices)}}$$

21.3.3 INTEREST – COST REVENUE RATIO (ICRR)

This is the ration interest charges (cost) to the total tax revenues and it is a better indicator to assess burden of internal debt for budgetary purposes. The estimate of this ratio represents the fiscal burden of the public debt.

$$\text{ICRR} = \frac{\text{Interest charges (cost) of public Debt}}{\text{Aggregate Tax Revenue}}$$

21.3.4 INTEREST COST REVENUE EXPENDITURE RATIO (ICRER)

This is the ration of interest charges (cost) to the total revenue expenditure. This ratio explains the diversion of socially desirable public expenditure for debt payments.

$$\text{ICRER} = \frac{\text{Annual Interest Payments}}{\text{Total Revenue Expenditure}}$$

21.4 MANAGEEMT OF PUBLIC DEBT

It is established that public debt has come to stay in the process of economic growth and hence the management of public debt assumed greater significance. Public debt management refers to the borrowing and repayment of debt by the government to maintain economic stability and growth in a developing economy. Debt management addresses the problems of outstanding debt, the relation between cost and benefits of public debt. It is concerned with the decisions relating to the structural characteristics of public debt. Hence, management of public debt covers the aspects of refunding of the debt, floating retirement of public debt.

According to C.C.Abbot, Debt management relates to the choice of different forms of debt, magnitude of different types of debt, the pattern of debt maturity, classification of debt ownership, terms and conditions of borrowing, adoption of new debt, methods of debt repayment and creation of new debt etc. In developing economies, debt management depends upon the level and structure of money and capital markets that need well organised banking network.

21.4.1 OBJECTIVES OF DEBT MANAGEMENT

The important objective of debt management is to promote savings and provide more for investment in the public sector without affecting the investment in private sector. This objective of debt management requires a debt policy capable of tapping funds from all possible sources of the economy. The other important objective of debt policy is to ensure large borrowing and debt retirement without frustrating the aim of maintaining price stability in the economy. In other words, debt management has to promote development within the framework of over all monetary stability. This objective intended to support the economic objective of promoting development with stability. This objective of growth oriented debt management should restrict the increase in money supply with a view to prevent inflation from getting out of control.

Monetisation of public debt primarily relates to the government borrowing from banking sector which leads to an increase in money supply and influences the level of prices. Liquidation of debt instruments by the public relates the conversion of bonds and securities into cash or money. Monetisation and liquidation are related to one another. Public debt management imposes some restrictions on the monetisation of debt. Raising the interest rate and extending the maturity period discourages the investors to monetise the debt early. Government also can make the government securities non – marketable.

21.4.2 PRINCIPAL OF DEBT MANAGEMENT

The management of public debt has to plan the debt structure in such a way that the interest obligation of the government has to be kept at the minimum possible level. Further, it must satisfy the preference pattern of the investors between liquidity and interest income. For this, the principles of debt management are to be identified. According to P.E.Taylor the general principles of debt management are:

1) The policies thus pursued must be able to extract from the public the necessary loans to finance matured debt at lowest rate of interest and without undue coersion;
2) The borrowing and repayment of market loans must ensure growth with stability. And
3) The dependence on market loans has to be reduced, particularly, when it becomes inconvenient to borrow loans in the open market.

21.5 PUBLIC DEBT POLICY

From the analysis of the principles of debt management, it is clear that achieving all the objectives of debt management is difficult. Hence public debt is to be managed in such a way either to maximise the advantage or to minimise the disadvantage of debt. Effective management of public debt depends upon the monetary policy pursued by a country. Further, it is realised that proper use of public debt is one of the pillars on which the fiscal policy of the country must stand. This calls for the formulation of a Public debt policy, which is to be integrated with monetary policy and the fiscal policy.

21.5.1 OBJECTIVES OF PUBLIC DEBT POLICY

The nature, purpose and direction of public debt policy is influenced by a variety of factors. The composition and magnitude of public debt influences in structure of Debt policy while the repayment and creation of new debts influence the nature of public debt policy. The purpose of debt utilisation and its maturity obligations decide the direction of public debt policy. The vital factor or the burden of public debt. The objectives of debt policy are many and varied.

The objective of debt policy is to ensure attractive rate of return on the funds lent by the investors. This will have a positive effect on the rate of savings in the country and debt policy, thereby helps to mobilise large scale borrowing required by the country. Public debt policy aims at restricting the money supply in the country by regulating the monetary functions of Reserve Bank of India. One of the important objectives of Debt policy is to utilise the debt productively to generate additional income and employment in the country, Further, it has to ensure economic stability which includes stabilisation of prices and employment. In other words, Debt policy shall aim at the objectives of growth with stability. On the others and, debt policy has to minimise the effects of inflation and deflation. To accommodate the changes in interest rate, maturity obligations, repayment conditions public debt policy is to be flexible.

21.5.2 LIMITATIONS OF PUBLIC DEBT POLICY

There are certain difficulties in the management of public debt policy particularly in developing countries. Generally, majority of the population in developing countries is poor and hence their ability to save and lend funds to the government is limited. Hence, the government finds it difficult to mobilise resources from the richer classes through increased taxation to service and repay the public debt used to finance the welfare programmes for the poorer classes.

The less developed and partially organised banking system fails to mobilise funds for investment in the financial markets of developing nations. In other words, the government finds it difficult to raise funds for investment as the money markets and capital markets are not adequately developed.

Recently Government borrowing from Reserve bank of India has been increasing and treasury bills have gone up in their share to internal debt. This has become a cause for continuous budget deficits in successive years. The proportion of non – developmental expenditure to total expenditures of the government has been alarmingly increasing over a period. Hence, the share of dead weight debt to total debt has also been increasing. Public debt policy is unable to contain these factors due to political reasons.

The rate of growth of Gross Domestic product fell short of the targets every year and hence government has been forced to raise loans from external sources to meet the revenue expenditure, budget deficit, servicing and repayment of debt obligations. These factors placed some constraints on the governments and some of them are forced to conform to the conditions or pressures exerted by the lending countries and international agencies.

21.5.3 MEASURES TO STRENGTHEN DEBT POLICY

Borrowing by the central governments and state governments from internal and external sources has become common in the recent years. As a result, the servicing and repayment of debt have become problems of serious concern. In view of this, following measures may be adopted to strengthen the debt policy.

It is necessary to assess the level of development of the economy and estimate the total amount of debt resources required for the next plan period. On the basis of the absorptive capacity (estimated capital efficiency) of the economy government has to estimate the amount of internal debt and external debt.

Effective organisation and management of money market and capital markets are needed for the channelisation of funds for investment. Monetary policy shall aim at improving the functioning of capital markets in the country. Further, the effects of black money are to be minimised by integrating the monetary, fiscal and debt policies.

The fiscal policy must aim at controlling the ever increasing non – plan expenditure and also the fiscal deficits in the budgets. On the other hand, the tax revenues and non – tax revenues are to be expanded to finance the developmental and capital expenditure programmes to raise the Gross Domestic Product.

Public debt policy shall aim at productive utilisation of debt resources to create national assets and generate additional employment and income in the society. This will help reducing the burden of dead weight debt. Greater case is to be exercised in reducing the financing of budget deficits and thereby containing the fiscal deficit. These efforts will help to release the resources to achieve a higher rate of growth of Gross Domestic Product.

Public debt policy is to be nationalised by fixing a ceiling on the size of treasury bills, a source of internal debt, through monetary policy. Government and central Bank have to annually decide upon the problems relating to changes in the debt outstanding interest rate, maturity structure and the pattern of securities trading to regulate and control internal debt.

In view of the increasing debt from external sources and international Financial titutions and the constraints of conditionalities strict control is to be exercised by the central government to regulate and control the borrowings of state governments from foreign sources.

21.6 REDEMPTION OF PUBLIC DEBT

While debt management is preoccupied with the obligations of servicing and annual repayment of principal debt amount, redemption of debt deals with the repayment of the whole debt or terminating the debt obligation permanently by repaying it on the date of maturity or even earlier. It becomes inevitable for any government to redeem the internal and external debts after sometime or the other along with interest payments. To reduce the burden of public debt on the revenue resources it is necessary for the government to redeem the debt as early as possible. Reduction in the burden of public debt facilitates the easy management of public debt.

21.6.1 CONSIDERATIONS FOR THE REDEMPTION OF PUBLIC DEBT

All government borrowings are to be repaid promptly. Redemption of public debt regularly by the government induces the confidence of the people to lend funds to the government. There are three considerations relating to the redemption of public debt. Firstly, equity consideration influences the debt redemption policy of the government. This consideration relates to the distribution of debt burden equally among the generations that enjoy the benefits of public debt. It means the burden of debt servicing and repayment is to be less on the generation in the initial stages of projects financed by debt and the burden of debt servicing and repayment is to be more on the generation that enjoys the benefits of projects financed by the debt.

Secondly, the consideration that influences the debt redemption policy is diminishing marginal utility of debt burden. This is based on the principle of minimising the aggregate sacrifice in allocating the tax – burden. As long as debt finance contributes for the sustainable rise in national income, debt policy need not aim at debt redemption. Lastly, the fact that any debt is to be redeemed after certain time period, becomes an obligation on the part of the government. This obligation makes the government to repay the whole debt by mobilising the resources.

21.6.2 METHODS OF DEBT REDEMPTION

Debt redemption means repayment of the an after or before maturity. Repayment of debt helps to maintain the confidence of lending agencies and also enables the government to float new loans. It saves the burden on the posterity. Redemption of debt releases pressure on the debt management policy. Reduction of public debt may divert investable funds into private sector. However, public debt is to be paid along with the interest amount within the fixed time period. There are different methods that may be adopted by the government to redeem the public debt permanently or temporarily.

21.6.2.1 Sinking Fund Method

This is a method in which government maintains a "sinking fund" from which the debt repayment is made. Certain amount of government revenue is deposited every year. According to Taylor, every year sinking fund is a fund for retirement (repayment) of funded debt.. Properly managed sinking fund provides orderly repayment of debt. It is a systematic and useful method of debt redemption.

This method was first adopted in England and many countries are following it including India. At present, sinking fund maintained by the government is of two forms. A) Certain sinking fund is the form of fund into which government credits a fixed amount every year. B) Uncertain sinking fund is the form of fund into which government credits the funds when the government secures surplus revenues in the budget.

Originally, sinking fund was allowed to accumulate sufficiently to repay the interest and debt amounts on maturity. But now-a-days funds are earmarked for the repayment of some part of debt in the same year. This method was said to be a slow method of redeeming the debt. Dalton says that sinking fund should be made out of current revenues of the treasury but not out of loans. Many governments are not maintaining the sinking fund and are using this fund for purposes other than repayment of debts also.

26.6.2.2 Budget Surplus Method

A policy of surplus budget was followed earlier to clear off a part of the debt every year. Since deficit budget has become the practice every year, arrangements have been made to repay a part of the debt from budget revenues. This method made the government to sacrifice the xpenditure on capital assets the extent to which revenues are earmarked for debt repayment.

26.6.2.3 Terminal Annuities Method

In this method government pays a part of the debt every year to reduce the burden of debt year after year. This method of terminating a part of the debt annually is similar to the repayment of debt in equal annual instilments. The burden of debt goes on diminishing annually and by the time of maturity it is already paid off.

26.6.2.4 Capital Levy Method

Capital levy refers to a very heavy tax on property and wealth. It is "all at once" tax on capital value possessions of the people. This method was advocated by Dalton, Pigou, Edge worth etc. This method affects the capacity and willingness to work and save. Hicks and shirr has opposed this method of debt redemption as it is difficult to asses and value the property and wealth of the people.

26.6.2.5 Refunding Method

Refunding is a method by which the maturing bonds are replaced by the issue of new bonds sometime, bonds may also be redeemed before the maturity date. Generally, government raises new loans at lower interest rates to repay the old loans with higher rate of interest. This method is adopted by the government at a time when the debt burden is too heavy and when the scope for raising funds from the sources is limited. There is a danger that government may be tempted to postpone the debt repayment for long time which may increase the total burden of the debt.

26.6.2.6 Conversion Method

This is a method in which new debt replaces the old debt. In fact, this is not method of debt redemption but is a method of changing the form of debt. In this method a debt of higher interest rate is converted into a debt of lower interest rate. It only helps to reduce the interest obligations and hence requires efficient debt management. According to Daiton debt conversion does not really relax the debt burden. A reduction to the interest rate reduces the ability of the bond holders to pay taxes there by reducing the revenues of the government and its capacity to redeem the debt.

26.6.2.7 Repudiation Method

Repudiation relates to the refusal or denial of repayment of the debt by the government. This is not a method of redeeming the debt but only an extreme step taken by the government to repay the interest and debt amount. This destroys the confidence of the people and financial institutions that lend money to the government. In the past, Soviet Government repudiated the debts held by czars in 1917 and some states in U.S.A. repudiated the debts owned by English - citizens during 1861-65. However, this is not a practice followed by any responsible government.

21.7 SUMMARY

It is essential for borrowing countries to assess the effects of public debt on various sectors of the economy. Further, it is important to estimate the burden of public debt, and its viability to expand or redeem it. The nature of debt and their estimated gains and losses indicate whether a debt is to be continued or redeemed or terminated. Public debt acts a powerful tool to regulate the economy, more specifically, the capital market that channelises funds from savers to investors. Public debt affects the consumption of the people in different ways. If future generation pays the debt it is paying the time when benefits acrue to them from long gestation projects financed by national debt, it is not a burden on them.

Magnitude of debt burden enables the government to take up suitable efforts to manage the debt and also to formulate and design a debt policy. The role of debt management depends upon the level and structure of money and capital markets that need well organised network. The management of public debt has to plan the debt structure in such away that the interest obligation of the government has to be kept at the minimum possible level.

The objective of debt policy is to ensure attractive rate of return on the funds lent by the investors. The less developed and partially organised banking system fails to mobilise funds for investment in financial markets of developing nations. Public Debt policy is to be nationalised by fixing a ceiling on the size of treasury bills, a source of internal debt, through monetary policy.

The burden of debt servicing and repayment is to be less on the generation in the initial stages of projects financed by debt and the burden of debt servicing and repayment is to be more on the generation that enjoys the benefits of project financed by the debt. As long as debt finance contributes for the sustainable rise in national income, debt policy need not aim at debt redemption.

21.8 CHECK YOUR PROGRESS

I. Answer the following questions in about 4 or 5 lines each.

1. What do you mean by debt management?
2. What are the objectives of debt management?
3. List the various types of debt-redemption?
4. List the various factors that influence policy.
5. What is the debt-income ratio?
6. What is the debt-servicing ratio?

21.9 GLOSSARY

Debt – Income Ratio	:	Ratio of total public debt to National Income in any time period.
Debt-servicing Ratio	:	Ratio of interest payments to National income.
Debt-Management	:	Borrowing and repayment of debt by the government for economic growth and stability. Debt management is related to the obligations of interest payments and principal repayment.
Redemption of Debt	:	It is related to the repayment of whole debt or termination of debt obligations.

21.10 MODEL EXAMINATION QUESTIONS

I. Answer the following questions in about 30 lines each.

1. Explain the effects of public Debt on various sectors of the economy.
2. Describe the objective of debt management in a developing country.
3. Discuss the measures to strengthen the debt policy.
4. Explain different methods of debt redemption.

II. Answer the following questions in about 15 lines each.

1. How do you measure the burden of public debt.
2. State the objective of debt policy.
3. What are the factors that influence debt policy.
4. Explain the principles of debt management.

21.11 SUGGESTED BOOKS

1. A.C.Pigou : **A Atudy in Public Finance,** Mucmillan, 1928.
2. H.Dalton : **Principles of Public Finance,** Routledge and kagon paul, 1936.
3. A.P.Lerner : **The Economies of Control,** Macmilan, Newyork, 1944.
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5. R.J.Chelliah : **Growth of Indian Public Debt,** Viking, 1992.
6. R.K.Chowdhuri : **Public Finance and Fiscal Policy,** Kalyani Publishers, Ludhiana, 1998.
7. A.R.Prest : **Public Finance in Theory and Practice,** English Language book society, 1960.
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- Prof. K. Nageswara Rao

BLOCK – VII : FEDERAL AND FUNCTIONAL FINANCE

This last block deals with the principles governing the allocation of financial resources to the federal as well as State Governments and flow. The government uses the finances to the day to day changing priorities of the economy. It also discusses the Centre-state financial relations in India and the various finance commissions starting from standing to the date and trends the Fiscal Policy the developing countries to achieve the desirable economic growth.

This block contains the following 3 units.

UNIT – 22 : PRINCIPLESOF FEDERAL FINANCE

Contents

22.0 OBJECTIVIES

The purpose of this unit is to understand the principles governing the allocation of financial resources to the federal as well as State Government with special reference to India.

After reading the unit, you will be able to

- explain the term, 'federal finance';
- identify the fiscal imbalances federal finance;
- analyze the principles of federal finance, and
- apply these principles to India.

22.1 INTRODUCTION

A federation involves two levels of governments viz., the federal government and the state or regional governments. A federal form of government, therefore, requires division of public functions and financial resources between these two levels of government. The operational efficiency of particular level of government in relation to a particular public function depends on the allocation of public functions to these two levels of government. For performing effectively the public functions allocated to a level of government the financial resources of the government have to be divided between those two levels of government. There are certain principles concerning the allocation of financial resources between the federal government and the federating units, namely, the states. The present unit is devoted to examine these principles and their relevance to India.

22.2 MEANING OF FEDERAL FINANCE

"Federal Finance" refers to the finances of the federal as well as the state governments and the fiscal relationship between these two levels of governments. In a federation, both the federal and state governments derive their powers directly from the Constitution of the country. The constitutions against each level of government specific functions and powers over which the other level of government does not usually have any control.

22.3 FISCAL IMBALANCES IN FEDERAL FINANCES

Imbalances in the allocation of functional responsibility and financial resources between the federal and state governments characterize all federations. In a federations two types of fiscal imbalances are present. The first is the 'verified fiscal imbalances' which occuing when there is an imbalance between tax revenues and expenditure needs among different levels of government (Federal – state or state – local).

The second is the "horizontal fiscal balances' which occurs when there is an imbalance between tax revenues and expenditure needs among differed states. Differences in the district between of income and wealth resources endowments, and the Lon segment, differences in their income earnings abilities result is horizontal fiscal imbalance among the different states in a federation.

In India, we find both vertical and horizontal fiscal imbalances. These fiscal imbalances are aggraded by developments we both taxation and public expenditure. Out one hand, with the progressive integration of economy, the more productive and elastic sources have increasing by because sustable for exploitation at the nation level from the, view point of resource allocation as well as that of efficiency in administration. On other hand, the gradnal evolution from a state mankind by Lasissezparire into a welfare state or a welfare state to market state, has forced the Union and state government particularly the state governments, to under take the wide range of costly public services such as education and public health. Thus government unit most suited to the provision of a particular public service may not necessarily be the best for raising the necessary financing resources. More over, the problem has become complicated by marked disparities in inter-state distribution of income and wealth defence, the need for redressing the fiscal imbalances in India is great.

22.4 JUSTIFICATION FOR FEDERAL SET UP

The federal set up has been a controversial issue since its inception. There have been a number of debates for and against the federalism. However, the problem has its own important place in the economic systems. Let us examine how far the federal setup is justified to balance the financial functions of the federal system between two layers of governments.

22.4.1 CREATES FINANCIAL DICIPLINE

Some states frame been raising loans for themselves and some completely depend up on the central governments for seeking the financial help. Some states which were at the position of ruin, finds very differently to discharge the functions. In order to make the Central – state Governments function on sound lines, there must be more financial discipline between Central – State Governments and therefore the more financial discipline has to be fixed up on the financial resources and their functions. Thus, the federal setup helps to create more financial resources due to discipline and co-ordination of the governments.

22.4.2 EFFICIENCY

It is well known fact that the modern governments are to operate within the socio-economic framework of the fast changing society. There are some duties that Central Government can discharge efficiently while some other duties can be discharged by the state or local governments efficiently. For example, there are certain services to the defence, communications, trade and commerce and inter - state transport that the central government are attending for better efficiency of the system. On other hand there are some public services have specific importance only in a specific regions and they differ from one area to other. -

These are medical and sanitation which are not being attended by state governments in efficient manager. In order that the state-central governments handle these sources in efficient and manner, there must be clear and demarcations of functions between central and state government. Thus the federal set up is required to discharge the functions efficiently.

22.4.3 AVOIDS DOUBLE TAXATION

When the financial resources of state and central government are not clearly demarcated. There is every likelihood for double taxation on sources that would certainly injure the society. Therefore, a clearent – distinction between the two layers of Government avoids confusions in respect of raising the funds. For example, the central government imposes the income-tax which the state government, imposes the sales tax, then avoiding the duplication of taxation.

22.4.4 SOLVES THE REGIONAL PROBLEMS

Each state or region has its own resources and potentiality as well as problems. Each region differs from others in respect of problems and resources. Some parts of a country suffers from floods while others face the problem of drought. There are a wide range of regional disparities among the different regions of the country. In order to solve these problems on the regional basis. The federal systems of government is required to suit to the needs of the different groups of people with the different economic and cultural situations in the different region of the country.

22.4.5 FREE FLOW OF INTER-STATE TRADE

The financial powers between the union and state government should be allocated in such a manner that they may not resort to tax competition just to attract the outside capital due to tax deduction competition, it always tamper the inter-state trade. In order to conduct the frarmonious flow of inter-state trade, it is essential to curb such practices, therefore the federal structure of the economy is necessary.

22.5 PRINCIPLES OF FEDERAL FINANCE

There are differences of opinion by many economists on the various principles of federal finances which some times clash with each other. Therefore, it is necessary for you to understand the important principles of federal finance put forward by the different economists.

22.5.1 EFFICIENCY

According to the principle of efficiency, the central, state and local governments should be able to handle efficiently in order to collect the public revenue from the different slources in their respective areas. For instance, the Central government is supposed to collect the taxes like wealth, income, gift taxes, excise duty, customs duty while the State Governments collect the sales taxes, expenditure taxes and local governments collect the professional taxes, electricity duties, water charges in efficient manner. The specific area of operation among the differend layers of governments in respect of collection of taxes would develop the efficient manner of handling the public revenue without any difficulty.

22.5.2 UNIFORMITY

The principle of uniformity means that the union government should perform its responsibility that all the state governments in a federal setup get equal treatment in respect of obtaining the grant-in-aid, sharing of tax burden or obtaining the benefits provided to them. No state should be putup with the higher burden of tax and no state should be discrimated for any thing. All the states should follow the equi-treatment in respect of taxes collection and pattern of expenditure.

22.5.3 ECONOMY

According to the principle of economy, the Central-state governments should as much as economise in respect of allocating resources, tax-collections between two layers of government. The central-state government should so design the certain devices to spend the least and collect the maximum revenue. By doing this exercise, the tax evasion will be minimized and administrative delays would also be least.

22.5.4 AUTONOMY

According to this principle, the central-state governments should be reasonable autonomous in a federal setup, so as to operate the internal financial matters. It means that the state government should have an adequate sources of revenue and also have reasonable freedom to spend more asper the requirements of the people and also collect the revenue more asper requirements of budget. Each government shold be independent to raise its own resources and spend the money accounting to its own choice without looking for other neighbouring states for financial help. In a federal set up, the state governments anrght to discharge some duties entrusted by the central government observing the central code of conduct. However, the state government have to implement certain Central sponsored schemes for which the Central Government provides grant-in-aid. The state governments should not interfere with the central government as far as their functions are concerned. The two layers of governments should have perfect understanding at their sphere of operations.

22.5.5 SELF-SUFFICIENCY

According to the principle of self-sufficiency, in a federal set up, the central-state governments should have the fiscal competence in respect of allocating the financial resources. The financial powers are to be so demarcated among the different layers of government in such a way that adequate resources are made available for these governments so as to perform their functions efficiently. If the government are not self-sufficient in resources, they will not handle the administration in appropriate manner, finally leading to instability and stagnation.

22.5.6 FLEXIBILITY

According to the principle of flexibility, in a federal set up, the government should be flexible enough to meet the fast changing requirements of the economy and the people. The governments should not only be the principle of fiscal competence or self-sufficient but also flexible in the matter of allocating the resources among the different layers of governments keeping the changes and requirements in view.

22.5.7 ECONOMIC REGULATIONS

In accordance with the principle of economic regulations, in a federal set up, the government should allocate the financial resources in a manner that the economic system remain stable, government should not only adopt a policy of mobilizing the additional resources but also stabilize the inflation and deflation without giving scope for resorting the economic disparities among the different sections of the society.

22.5.8 TRANSFER OF RESOURCES

According to the principle of transfer of resources, in a federal governments. These must be a provision to transfer the resources from one state to the other. Some states are which in resources while some are poor in resources, and thereby there will be imbalances between two regions. In a federal system of government, it is only possible to transfer the resources from the states which are rich in resources to the resources deficit states in order to achieve a balance growth of development.

22.5.9 ADEQUACY AND ELASTICITY

According to the principle of adequacy and elasticity, the resources allocated to each level of government should be adequate for the dischange of duties entrusted to it, such adequancy should to not only the present needs but also the future requirements of economy. In a federal up, it has been observed that the state governments function with the day to day increased expenditure. In view of certain financial crisis, break out of wins, the governments should possess the quality of elasticity to expend its activities or contract the pattern of expenditure.

22.5.10 INTEGRATION AND CO-ORDINATION

According to the principle of integration and co-ordination, the central-state governments ought to integrate and co-ordinate with each other in respect of distributing resources between two layers of governments as it may lead to promote the economic development. These government ought to follow the principle of co-ordinate not only in the matter of taxation but also in very financial activities i.e. budget, creation of operation of various activities.

Agent from the principles stated above, the central-state governments should adhere to the other principles of equity, anountability and fiscal access to ensure the ideal balance of financial powers, needs and available resources among the states.

22.6 APPLICABILITY OF THE PRINCIPLES TO INDIA

In India, the principles of Independence and responsibility is partially followed because the Indian constitution provides for only a partial reparation of revenue between the union and state governments.

The central and state government have been clearly allocated certain taxes as per the constitution. They have exclusive powers to levy taxes and income the expenditure within their respective areas. But in respect of borrowings, the pwer of the state governments completely entailed as the union governments enjoys a virtual monopoly in this respect.

The principle of adequacy and elasticity is observed to a lesser extent than the other in the India federal financial system. Owing to the increased integration of the economy and day-to-day developments in transport, commerce and trade, but centralisation of resources and decentralisation of functional responsibilities have become the evitable.

The states are not able to mobilize adequate resources from their own taxes, consequently they have to depend upon the union government for assistance. After adoption of economic planning in the country, the responsibility of the state governments have also increased to the larger extent and thus the dependence on the union government have increased for assistance.

In India, the scheme of allocation of financial resources is largely based on the principle of operational efficiency and administrative economy. Since the union government is best suited to exploit many productive resources and elastic taxes, the states are left with only few taxes which are comparatively less elastic and less productive in nature. The states are burdened with several expensive and expansive responsibilities, especially social services. In view of this, considerable volume of revenue transfer from union government to the states has become increasing necessary. Realising this, the framers of the Indian constitution have included a ten compensation powers to fill in the state revenue gap.

Besides allocating specific taxes to both the union and the state governments, the Indian constitution provides for other kind of tax revenue transfers for the union governments to the state governments. They are set forth here under.

a) Duties or taxes levied and collected by union government but net proceeds are or may be shared between the union and state governments regarding personal income tax and union excise duties.

b) Taxes levied and collected by the union government but the entire net products of which are assigned to the states, e.g. Estate duty.

c) Duties levied by the union government which are collected and retained by the state Government eg. Central sales tax.

The Indian constitution has provided for the appointment of the finance commission in view of the possible emergence of vertical as well as horizontal fiscal imbalances in the federal financial system.

22.7 SUMMARY

Fiscal imbalance in the allocation of functional responsibilities and financial resources is a characteristic feature of all federations. In order to ensure vertical and horizontal fiscal equity, allocation of resources to the federal and state government should be made in such a way that there is correspondence between functional responsibilities and financial resources at each level of government. However among the principles laid down by economist for allocation of financial resources between the federal and state governments, the principle of operational efficiency and administrative economy(or the principle of suitability) along is considered practicable in many federations including India.

22.8 CHECK YOUR PROGRESS

I. Answer the following questions in about 4 or 5 lines each.

1. What is federal finance?
2. What is vertical fiscal imbalance.
3. What is horizontal fiscal imbalance.
4. What are the principles of federal finance.
5. What is justification for federal setup.

22.9 MODEL EXAMINATION QUESTIONS

I. Answer the following questions in about 30 lines each.

1. Discuss the fiscal imbalances in federal finance.
2. Explain the principles of federal finance and their relevance to India.

II. Answer the following questions in about 15 lines each

1. State the problem of federal finance.
2. Examine the principle of "Independence and responsibility"
3. Explain the " Principle of Suitability".

22.10 SUGGESTED BOOKS

1. B.P.Thyagi : **Public Finance**
2. H.L.Bhatia : **Public Finance**
3. U.K.Hicks & Others : **Federalism and Economic Growth**
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5. Wilfred David (ed) : **Public Finance, Planning and Economic Development** (Essays in Honour of UK Hicks)
6. Raja J. Chelliah Associates : **Trends and Issues in Indian federal Finance.**

- Prof. Md. Iqbal Ali

UNIT – 23 : CENTRE-STATE FINANCIAL RELATIONS IN INDIA – FINANCE COMMISSIONS

Contents

23.0 OBJECTIVES

The main objective of this unit is to explain the central – state financial relations.

After reading this unit, you will be able to:

- analyse how healthy the central-state relations;
- examine the problems of central-state financial relations in India;
- understand the mechanism of fiscal transfers between central-state governments; and
- assess the role of Finance Commissions.

23.1 INTRODUCTION

India is a country with federal structure, center-state fiscal relations are recognized as very important in almost all the federations.

It may be noted that the central government plays an important and key role in achieving economic development in countries with federal structure in modern times. India was formed into a federation after its independence. Provisions, thus necessary were incorporated in the Indian Constitution. The division of revenues and functions, which is inevitable in a federation, is provided in the constitution. The Centre-State financial relations which are necessary for the existence of a federation are governed by federal fiscal relations. It is pertinent to note that provisions are made in the Indian constitution to set up a Finance Commission to channelise and also to monitor fiscal transfers. But it may be noted that Planning Commission, which was established with the initiative of the government, besides the statutory Finance Commission have been playing a significant role with regard to Centre-State financial relations. Therefore, it is necessary to know elaborately the financial transfers which make fiscal adjustment between the centre and states.

23.2 CONSTITUTIONAL DIVISION OF POWERS AND FUNCTIONS

The powers and functions between the Centre and States are not very clear and unambiguous. However, in this division while more revenue powers are given to the Centre, States have been given more expensive and expansive functional responsibilities. Let us known about those aspects in more detail below.

23.2.1 THE UNION LIST

The constitution contains 3 lists with regard to division of various subjects – The Union List – 97 subjects, (2) State List containing 66 subjects and the 46 subjects included in the Concurrent List which are included in the Seventh Schedule of the Constitution. As per the constitutional division, the following are the tax powers of the Union Government.

1. Income Tax on Non-agriculture income
2. Corporation Tax
3. Excise Duties on tobacco and other goods manufactured or produced in India except Alcoholic liquids for human consumption, opium, Indian hemp and other narcotic drugs and narcotics.
4. Estate Duty on non-agriculture lands.
5. Taxes on capital values.
6. Taxes other than stamp duties on transactions in stock exchanges and future markets.
7. Rates of stamp duty in respect of bills of exchange, cheques, promissory notes, bills of landing etc.
8. Taxes on sale or purchase of news papers and on advertisements therein.
9. Terminal taxes on goods or passengers carried by railway, sea, or air; taxes on railway passenger fares and freights.
10. Taxes on the sale and purchase of goods other than news papers, where such sale or purchase takes place in course of interstate trade or commerce.
11. Taxes on the consignment of goods where such consignment takes place in course of inter-state trade and commerce.
12. Customs Duty.

Functions of the Centre: The functional responsibilities are also divided between the center and states just like the revenue powers. Those function which have an inter-state character are entrusted to the center while functions having regional or local interests are allocated to the states. Following are the important functions that are allocated to the Centre as follows:

1. Defence
2. External Affairs
3. Commerce
4. Posts and Telegraphs
5. Railways
6. Shipping
7. Internal Communications

The tax powers which are not enumerated either in the Union List or State List are to be imposed by the Centre according to the Indian Constitution. This shows the supremacy of the Central Government.

Functions of the State Government:

1. Education
2. Medical
3. Public Health
4. Irrigation
5. Road Transport
6. State Electricity Boards
7. Social Welfare Schemes
8. Agriculture

Some subjects which are not included either in the Union List and State List are included in the Concurrent List. The powers and functions which are not included in any of these three lists are known as Residuary Powers on which the Central Government has legislative powers. As a consequence of this division of powers and functions fiscal imbalances emerged, which are very common in a federation and which were visualised by the constitutional makers. This is mainly because most of the productive and elastic resources or revenue powers are provided to the centre while in elastic and unproductive tax powers are entrusted to the states. Besides the states are provided with expensive and expansive functions. As a result, both vertical and horizontal federal fiscal imbalances exists in the Indian federation. For example, in 1950-51 out of the combined revenues of centre and states, while the center accounts for 65 per cent the states are left with 35 per cent. More or less, similar trend is continued till now. The constitutional made several provisions to make fiscal adjustment through fiscal transfers in order to ensure healthy financial relations between the centre and states in India.

This is because fiscal imbalances are not only quite normal as opined by Maxwell, there can be no final solutions to fiscal problems in a federation. So fiscal balance is to be attained by making fiscal transfers. This is because it is not rational to make fresh division of powers and functions in order to reduce fiscal imbalance. Through the division of powers and functions are divided between the Centre and States in India adopting scientific and economic principles of B.P. Adarkar, fiscal imbalances have emerged out. In order to reduce these fiscal imbalances, fiscal transfers have been made by the Centre to States right from 1950 onwords through the following channels.

Central Finance Commission | Planning Commission | Discretionary Transfers through Central Government Department

As explained above, fiscal transfers are being made by the Finance Commission, Planning Commission and various Union Central ministries for several schemes as:

23.2.2 STATES' LIST OF TAX POWERS

1. Land Revenue
2. Taxes on sale and purchase of goods excluding news papers
3. Agriculture Income Tax
4. Taxes on property and buildings
5. Estate duty on agricultural lands
6. Excise duties on goods containing alcoholic liquors for human consumption, opium, Indian hemp and other narcotic drugs and narcotics
7. Taxes on the entry of goods into local area
8. Taxes on mineral right
9. Taxes on consumption or sale of electricity
10. Taxes on animals and boats and vehicles
11. Rates of stamp duty in respect of documents other than those specified in the Union List.
12. Terminal taxes on goods or passengers carried by railway, sea, or air; taxes on railway passenger fares and freights.
13. Taxes on luxuries including taxes on entertainments, amusements, betting and gambling
14. Tolls
15. Taxes on professions, trades, callings and employment
16. Capitation taxes
17. Taxes on advertisements other than advertisements published in news papers and on advertisements broadcast by radio and television recommended by the Planning Commission. It is necessary to know the type and volume of fiscal transfers channeled through these institutions in order to analyse and understand and analyse the centre – state financial relations in India. Let us know first the fiscal transfers made through the Finance Commission.

23.3 FINANCE COMMISSION

A Finance Commission is to be set up under Article 280 of the Constitution, by the president of India for every five years or earlier if the president of India feels it necessary. Unlike in the USA, Canada and Australia, the Indian Finance Commission was given constitutional states. Constitutional provisions are made for an unbiased, legal and statutory Finance Commission by which the financial autonomy of the states and financial stake of the centre can be preserved. So far 12 Finance Commissions have been appointed since 1951. The Finance Commission consists of five members including the chairman appointed for a term. According to the constitution, the Finance Commission is required to make recommendations relating to fiscal transfers. Moreover, the president of India may refer any item to the Finance Commission for its recommendations in the interest of sound finance. The details of the Finance Commissions and its chairman can be known by the following Table – 23.1.

Table – 1 : Central Finance Commission – Chairmen

Finance Commission	Name of the Chairman	Year of Appointment
First Finance Commission	Sri K. C. Neogy	1951
Second Finance Commission	Sri K. Santhanam	1656
Third Finance Commission	Dr. A.K. Chanda	1960
Fourth Finance Commission	Sri P.V. Rajamannar	1964
Fifth Finance Commission	Sri Mahavir Thyagi	1968
Sixth Finance Commission	Sri Kasu Brahmananda Reddy	1972
Seven Finance Commission	Sri J.M. Shelath	1977
Eight Finance Commission	Sri Y.B. Chavan	1982
Ninth Finance Commission	Sri N.K.P. Salve	1987
Tenth Finance Commission	Sri K.C. Panth	1992
Eleventh Finance Commission	Dr. A.M. Khusro	1998
Twelth Finance Commission	Dr. C. Rangarajan	2002

According to Table – 23.1, it may be noted that so far eleven Finance Commissions have made recommendations relating to fiscal transfers between the Centre and States and are also implemented by the Government. The Twelfth Finance Commission has been appointed by the Government only recently under the chairmanship of Dr. C. Rangarajan, former Governor of Andhra Pradesh.

23.3.1 Finance Commission – Functions

The Finance Commission has to make recommendations to the President of India relating to the following aspects under Article 280 (3) of the constitution.

a) To determine the States' share of the shareable taxes, both of obligatory sharing and optional sharing taxes, and the principles that govern the inter – state distribution of the net process set apart of states' purpose.

b) To determine the Quantum of grants-in-aid to be made from the Consolidated Fund of India under Article 275(1) to those States which are in need of revenues and to evolve the principles that govern the eligibility of states to get grants-in-aid.

c) Any other matter referred to the commission by the president of India in the interest of sound finance.

The functions detailed above can be divided into three categories. 1. To distribute the tax revenue from the shareable taxes, 2) to recommend grants-in-aid to the states in need of revenues, 3) other recommendations. It has been customary to accept the recommendations by the parliament, except in few cases, though the constitution has not specified anywhere that the commission's recommendations would be accepted in toto. The fiscal transfers through the Finance Commission, the Planning Commission and through the Central Ministries of the Union Government. The first category is the share from the net proceeds from shareable taxes while the second is the grants-in-aid (Plan and Non-plan) and the third being loans for different purposes. The fiscal transfers from the Centre to States between First Five Year Plan and 2000-2001 may be seen in Table – 23.2.

Table – 23.2: Fiscal Transfers from the Centre to States

(Rs. In crores)

Period/Year	Shared Tax Revenue	Grants-in-aid	Gross Central Loans	Total
First Five Year Plan	344 (24.0)	288 (20.1)	799 (55.9)	1431 (100.00)
Second Five Year Plan	688 (23.8)	789 (27.3)	1411 (48.9)	2888 (100.00)
Third Five Year Plan	1196 (21.4)	1304 (23.3)	3100 (55.3)	5600 (100.00)
Fourth Five Year Plan	4562 (30.2)	3831 (25.4)	6708 (44.4)	15101 (100.00)
Fifth Five Year Plan	8268 (32.5)	8198 (32.2)	8978 (53.3)	25444 (100.00)
Sixth Five Year Plan	23728 (36.3)	17941 (27.4)	23722 (36.3)	65391 (100.00)
Seven Five Year Plan	49465 (35.2)	42005 (29.9)	48945 (34.9)	140415 (100.00)
Eight Five Year Plan	131950 (40.8)	103151 (31.9)	88460 (27.3)	323561 (100.00)
2000-2001 (B.E)	52060 (45.8)	40546 (35.6)	21195 (18.6)	113801 (100.00)

Source: India 2001, PP 310-311
Note: Figures in brackets are percentages to the total.

It may be noted from Table – 2 that the fiscal transfers have increased from Rs. 1431 crores during First Five Year Plan to Rs. 3,23,561 crores during the Eighth Five Year Plan. These transfers were estimated to be Rs. 1,13,801 crores in 2000-2001. A favorable trend to the States may be noticed in the above Table. The proportion of loans in the total fiscal transfers has been declining in between First and Eighth Five Year Plan period which is good to the States. However, all these transfers are not made through the statutory Finance Commission. So let us known the role of the Finance Commission more elaborately.

Shared tax revenue is the most important fiscal transfers among the fiscal transfers made through it Finance Commission.

23.4 SHARED TAX REVENUE

Provisions have been made in the constitution to transfer a share from the central taxes to states. According to Article 270 of the Constitution, the centre has to give a share from Income Tax net proceeds. Similarly a share from the net proceeds from Union Excise Duties under Article 272 may be given to the States if the Parliament thus decides. So it means while a share from the net proceeds from Income Tax shall be given compulsorily to states, a share from Union Excise Duties may be given to the states. However, almost all the Finance Commissions recommended share from these two shareable taxes and the government also accepted the recommendations. It may be noted that the above constitutional arrangement has been in practice until the 80the Constitutional Amendment. According to the 80th Constitutional Amendment. According to the 80th Constitutional Amendment a share from all the taxes of the Central government instead of only from Income Tax and Union Excise Duty. This arrangement is known as Gobal Sharing. According the 10th and 11th Finance Commissions recommended 29 per cent and 29.5 per cent of the net proceeds from all the taxes (including Additional Excise Duty).

Table – 23.3 : Finance Commissions – Income Tax and Union Excise Duty Revenue States' Share

In percentages

Finance Commission	States' Share in Income Tax	States' share in Union Excise Duties	
1st Finance Commission	50-55	40	From Tobacco, Matches and Veg. products
2nd Finance Commission	55-60	25	8 goods (tobacco, matches, veg. Products, sugar, coffee, tea, paper and veg. Products)
3rd Finance Commission	60-66 2/3	20	All commodities
4th Finance Commission	66 2/3-75	20	All commodities
5th Finance Commission	75-no change	20	All commodities
6th Finance Commission	75-80	20	All commodities
7th Finance Commission	80-85	40	All commodities
8th Finance Commission	85-no change	45	All commodities (5% for deficit states only)
9th Finance Commission	85-no change	45	All commodities
10th Finance Commission	85-77.5	47.5	All commodities (7.5% for deficit states only)

Table – 23.3 explains the percentage shares of Income Tax and Union Excise Duty net proceeds as recommended by successive Finance Commissions. For instance the Income Tax share has increased to 85 per cent by the Eighth Finance Commission. The Ninth Finance Commission retained the States' share while it was reduced to 77.5 per cent by the 10th Finance Commission. It may be noted that the Finance Commission for the first time, has reduced the existing share from Income Tax. The alternative scheme recommended by the 10th Finance Commission, which was subsequently accepted by the 11th Finance Commission was implemented by the Government through a Constitutional Amendment. So the earstwhile sharing of Income Tax and Union Excise Duties net proceeds lost its importance. The First Finance Commission recommended 40 per cent of Union Excise Duties on three commodities of tobacco, matches and vegetable products while the Second Finance Commission extended the sharing to 8 commodities such as sugar, coffee, tea, paper, vegetable oils including the above three commodities reducing the States' share to 25 per cent. The Third Finance Commission reduced the States' share to 20 per cent extended the coverage of excise duty to all commodities which was, more or less, continued till the Seventh Finance Commission. The Seventh Finance Commission recommended States' share to 40 per cent with a view to increase the resources at the States level. The Eight Finance Commission increased the States' share to 45 per cent. However, it recommended that the increased 5 per centage revenue should be distributed only among those states having budgetary deficits on their non-plan revenue account. While the States' share was rationed by the Ninth Finance Commission at the 45 per cent the 10th Finance Commission recommended 47.5 per cent with the condition that the 7.5 percentage share be distributed among States with revenue deficits.

It may be noted that the revenue from tax sharing channelled through the Finance Commissions has increased substantially. For example, the revenue from shared tax revenue has increased from Rs. 344 crores during First Five Year Plan to Rs. 1,31,950 crores during 8th Five Year Plan.

23.4.1 ADDITIONAL EXCISE DUTIES

The states withdrew their sales tax on tobacco, sugar and mill-made textiles since 1957-58 onwards. Instead, the centre has been levying Additional Excise Duties on these commodities and the revenue thus accrued has been distributed among the states. The successive Finance Commissions have been entrusted the responsibility to evolve principles to distribute the net proceeds from these duties and determine the percentage share to each state. But the 10th and 11th Finance Commission in their alternative scheme of devolution recommended 3 per cent and 1.5 per cent respectively from the centre's tax revenue in lien of Additional Excise Duties where Sales Tax on these three commodities is not imposed.

23.4.2 PRINCIPLES OR CRITERIA OF DISTRIBUTION

The shared tax revenue from Income Tax and Union Excise Duties set apart for States' purpose have been distributed on different bases or principles. The net proceeds from Income Tax until the 8th Finance Commission have been distributed 80 or 90 per cent on the basis of population and 20 or 10 per cent on the basis of collection or assessment in those states. Since the 8th Finance Commission onwards, the weightage given to population has been declining and the importance of a 'criteria of backwardness' is determined by several socio-economic factors. Therefore, the states which are really backward are benefited by such a criteria. The criteria adopted by the 11th Finance Commission is really in favour of the backward states. This is mainly because of the high importance accorded to per capita Income to see that the state with the lowest per capita Income gets the highest share.

With regard to the shared tax revenue from Union Excise Duties, the first two commissions accorded high importance to population factor while taking into account collection/assessment of the tax for inter-state distribution of the net proceeds. The third Finance Commission adopted a 'criteria of backwardness' on the basis of several factors like the road length, rail mileage, geographical area, scheduled castes and tribes population as a proportion of total population of the State, per capita Income of the State etc.

With regard to Additional Excise Duties, the States were given initially compensatory grant which is equivalent to the loss of revenue from Sales Tax on these commodities in 1956-57. The Second Finance Commission recommended an amount of Rs. 32.50 crores for distribution among all the states. In the subsequent years, the amount from Additional Excise Duties over and above the guarantied amonts have been distributed among the States on the basis of a criteria as recommended by the successive Finance Commission. The Finance

Commissions have taken factors such as the consumption of these three goods, sales tax collection, dispatches of these goods in the respective states while determining the States' share.

23.4.3 GRANTS IN LIEU OF RAILWAY PASSENGER FARES TAX

The Article 269 of the constitution empowers the Central Government to levy a tax on railway passenger fares and to collect the same but the entire net revenue goes to the States. This tax was imposed for the first time in 1957. However, the tax was wound up in 1961 due to administrative reason and agreed to compensate the loss by providing a grant of Rs. 12.50 crores per year for the period 1961-65. This compensatory grant has been increased to Rs. 23.12 crores in 1980-81 to 95 crores by the Eighth Finance Commission and to Rs. 150 crores by the Ninth Finance Commission for the period 1990-95. The annual amount of grant has been increased to Rs. 380 crores for the period 1995-2000. Successive Finance Commissions have recommended that the grant amount be distributed among States on the basis of average collection of non-suburban rail charges, route mileage etc.

23.5 CENTRAL GRANTS-IN-AID

The Central Government (with the approval of the Parliament) can award grants-in-aid under Article 275(1) to those States which are in need of revenues. The First Finance Commission recommended an annual grant of Rs. 14.43 crores for the period 1952-57 to those states which were estimated to be having revenue deficits. The Second Finance Commission recommended a total amount of Rs. 187.75 crores for the period 1955-60 while an annual grant of Rs. 52 crores and Rs. 121.89 crores respectively were recommended by the Third and Fourth Commissions. It may be noted that the Fifth, Sixth, Seventh, Eighth and Ninth Commissions recommended respectively Rs. 367.85 crores, Rs. 2509.61 crores, Rs. 1173 crores, Rs. 1513 crores and Rs. 15017 crores to those states having deficits on their non-plan revenue accounts. The Tenth Finance Commission recommended an amount of Rs. 20300 crores for different purposes for the period 1995-2000. Of this, Rs. 7582 crores were given for filling the non-plan deficit, Rs. 1362 crores for the development of services, Rs. 1246 crores for Special problems, Rs. 5380 crores for Local Bodies, and Rs. 4728 crores for financing relief expenditure that arise due to natural calamities.

The 11th Finance Commission recommended a huge amount of Rs. 58,857 crores as grants-in-aid for different purposes. Out of this an amount of Rs. 35359 crores are given for filling the non-plan revenue gap of the States. Rs. 4972 crores for the upgradation of non-developmental administrative and social services, Rs. 10,000 crores for the Local Bodies and Rs. 8255 crores for financing relief expenditure have been provided by the Commission. As a whole it has recommended a total amount of Rs. 4,34,905 crores to the States for the five year period. Besides, financial relief has been provided by several Finance Commissions to States with huge outstanding debts. It is pertinent to note that almost all Finance Commissions have taken 'Budgetary needs' as the basis for awarding the revenue-gap grants to fill the deficits on the non-plan revenue account.

23.6 GRANTS FOR UPGRADATION OF SERVICES

Finance Commissions awarded grants-in-aid for upgradation of administrative and social services (both non-developmental and developmental) to those states which are falling below the national average. The First Finance Commission recommended 9 crores to those states which requires to upgrade primary education. The Government of Andhra Pradesh got Rs. 1.2 crores for this purpose. Similarly, the Third Finance Commission awarded Rs. 36 crores for the development of road communications. Successive Finance Commissions from 6th to 11th (except 9th Finance Commission) awarded grants-in-aid for different purposes like police, education, medical, treasury, training social and administrative services etc. as shown in the Table – 23.4. The grants for upgradation of services awarded to Andhra Pradesh may also be seen in the following table.

Table – 23.4 : Financial Commissions – Grants for Upgradation of Administrative and Social Services

(In crores of rupees)

Financial Commission	Grants-in-Aid (Total)	Share of Andhra Pradesh
1st Finance Commission	9	1.2
3rd Finance Commission	36	2
6th Finance Commission	838	5.3
7th Finance Commission	437	20
8th Finance Commission	915	80
10th Finance Commission	2608	154
11th Finance Commission	4973	285

Source: Reports of the Finance Commission.

23.7 GRANTS FOR FINANCING OF RELIEF EXPENDITURE

The state governments should undertake relief operations whenever natural calamities (floods, cyclones, earthquakes, fire accidents and drought) occur. The centre extends its help and assistance in order to enable the states to withstand these calamitous situation. The Ninth Finance Commission took a very important decision in this regard. Until then, the Central Team, which used to visit the state on request, used to recommend central assistance to states after assessing the loss sustained due to the natural calamities. Such assistance used to be given after inordinate delays and also was attributed to be discriminatory. So the Ninth Finance Commission recommended for the establishment of Calamity Relief Fund (CRF) in each state which is to be operated under the purview of the Chief Secretary of the State. The total fund amount is to be decided on the basis of certain approved norms which are applied uniformly to all states. Out of the total fund amount 75 per cent is to be contributed by the center while the state contributes 25 per cent from its own revenues. This innovative arrangement facilitates immediate relief by the states whenever a natural calamity occurs. The Ninth Finance Commission recommended a total amount of Rs. 4000 crores towards the Fund for all states and recommended Rs. 3000 crores as its share of the 75 per cent of the Fund. The remaining was contributed by the states from their own revenues. The Tenth Finance Commossion recommended an amount of Rs. 4728 crores while the Eleventh Finance Commission recommended Rs. 8256 crores as its 75 per cent share. Moreover, the Eleventh Finance Commission recommended for setting up of a National Calamity Contingency Fund to provide relief to a state whenever a severe National Calamity occurs. According to the Commission, a special levy may be imposed for the purpose of the Fund, the resources of which are to be spent at times of natural calamities. This facilitates relief operations on a continuous and permanent basis.

23.8 DEBT RELIEF OF THE STATES

The President of India has been asking the successive Finance Commissions, especially after the Second Finance Commission, to make recommendations relating to debt relief of the States. The Finance Commission recommended cancellation of debts, rescheduling of debts, waiving of interest payments and grants-in-aid for debt relief taking into account huge amount of debt burden, interest payments, financial situation of the State and fiscal discipline etc. However, the Finance Commissions used to provide grants-in-aid or relief measures only after assessing the non-plan capital gap of the states. The Sixth Financial Commission recommended Rs. 1969.62 crores as grants-in-aid for debt relief while Rs. 2155.80 crores, Rs. 2285.39 crores and Rs. 2000 crores respectively were awarded by the Seventh, Eighth and Ninth Finance Commissions. The Tenth Finance Commissions recommended special relief measures to stares with fiscal distress and also to special category states taking into account the fiscal discipline of the States. The Eleventh Finance Commission also adopted, more or les, the debt relief scheme as recommended by the 10th Finance Commission while observing that any scheme of debt relief needs to encourage fiscal prudence and fiscal discipline.

23.9 GRANTS TO LOCAL BODIES

The Finance Commission can make recommendations to augment resources of the local bodies according to 73rd and 74th Constitutional Amendments. The Tenth Finance Commission, taking advantage of the provisions of the 73rd and 74th Amendment Acts, for the first time recommended an amount of Rs. 5381 crores for both Rural Local Bodies and Urban Local Bodies for the period 1996-97 and 1999-2000. The Eleventh Finance Commission also recommended Rs. 10,000 crores for the local bodies for the period 2000-05. However, the grant amount has to be spent by the local bodies for the development of basic amenities. This recommendation may be considered as a milestone and an important event in the history of local bodies.

23.10 PLAN ASSISTANCE

The Central Government make central assistance for State Plan Schemes on the basis of the Planning Commission. Funds are made available for plan purposes on the basis of Article 282. Moreover, the Centre provides assistance through the Central Ministries for central sector and Centrally Sponsored Schemes. The Centre used to provide assistance to the State Plan Schemes according to its discretion to the State Plan Schems according to its discretion until 1968-69. But in the light of States'demand, central assistance for State Plan Schemes since the Fourth Plan period has been distributed among the States on the basis of an objective and uniforam formula known as 'Gadgil Formula as shown in Table – 23.5. Several changes have been made to the Gadgil Formula subsequently. The main aim of Gadgil Formula was to reduce the bias and discretion of the government in provision and distribution of central assistance among the states. According to Gadgil Formula, the Loan-grant ratio of the Central Plan essistance to states, both developed and developing, is 70:30. Currently the plan assistance is being distributed by a formula as shown in the following Table. Apart from this assistance, the Centre has been providing assistance through the central sector and centrally sponsored schemes. It is estimated that at the time of launching the 10th Five Year Plan, there are about 200 such schemes. Several States have been demanding that these schemes do not

Table – 23.5: Criteria of Distribution of Central Assistance for State Plan Schemes

Gadgil Formula		New Formula	
Basis/Factors	Weightage (percentage)	Basis/Factors	Weightage (Percentage)
1. Population (1971)	60	Population (1971)	60
2. Expenditure commitments of irrigation projects	10	Per capita income	25

3.	Per capita income	10	Special problems	7.5
4.	Tax effort	10	Performance of the states in select fields	
5.	Special problems	10	d) Tax effort e) Fiscal management f) Progress in some sectors of national priorities	

suit their needs and priorities, so the number of these schemes should be reduced substantially. The resources thus saved should be transferred to the states as part of plan assistance for State Plan Schemes. The assistance for such schemes was Rs. 781 crores during the Fourth Five Year Plan which increased to Rs. 33816 crores during the Eighth Plan. It may be noted that during 1970-71 to 1994-95, out of the total fiscal transfers almost 55 per cent of them have been channeled through the Planning Commission while the remaining 45 per cent has been channeled through the Finance Commission. This indicates the role played by the Planning Commission, a non-statutory body, in transferring the total transfers.

Eventhough the fiscal transfers, which govern the Centre-State financial relations, have increased by so many hundreds of times and even to-day almost one third of the revenue expenditure of the states is being met by central fiscal transfers, still there exist several financial problems between the Centre and the States. Important financial problems that exist in between the Centre and States are discussed below.

23.11 IMPORTANT PROBLEMS IN CENTRE – STATE FINANCIAL RELATIONS

There should be healthy financial relations between the centre and states to ensure prolonged existence of a federation. There have been difference of opinion and problems between the centre and the states right from the implementation of the constitution. The states strongly believe that the divisions of revenue powers and functions are in favour of the Centre. Moreover, several states objected the increasing and important role of the Planning Commission in transferring the reaources compared to the Finance Commission which is a statutory body. The states argue vehemently that the Finance Commission should be made a permanent body. Moreover, the redefinition of Income Tax by the Central Government excluded the states of a share from Company Income Tax. The states have been demanding that the surcharge imposed by the centre from time to time should be abolished, the Sales Tax power of the states on Sugar, Tobacco and Textiles be restored, to expedite the collection of tax revenue from taxes under Article 268 and 269, to change the loan: grant ratio relating to central assistance for State Plan Schemes in favour of backward states.

It has also been demanded to reduce the size of Central Sector and Centrally Sponsored Schemes and also to increase the assistance provided for relief expenditure that arise due to natural calamities. The states also criticize that the non-statutory fiscal transfers are relatively larger than the statutory fiscal transfers. However, most of the above mentioned problems are automatically solved due to the 'Alternative Scheme' of fiscal transfers as recommended by the 10th Commission and paved the way for new fiscal relations. It is pertinent to note that the states feel that the following issues are very important to improve the Centre-State fiscal relations in India. The issue are:

1. To make the Central Finance Commission a permanent body.
2. To make the loan: Grant ratio of Plan Assistance as 50:50.
3. To empower the States to impose Service Tax on specified services.
4. To augment more revenues from taxes enumerated under Article 268 and 269.
5. To abolish the upper ceiling imposed by the 11th Finance Commission on the total fiscal transfers from the Centre.
6. To increase the volume of fiscal transfers in view of the expensive and expansive states' responsibilities.
7. To reduce the size or number of Centrally Sponsored Schemes.

While the States demand the above issues to be solved in their favour, the center holds that states depend on the center for fiscal resources without exploiting their own revenue sources. It may be noted that both the centre and the states need to solve the fiscal problems with mutual and better understanding, cooperating each other without suspecting each other. Then only it would be possible to have a cooperative federalism in India.

13.12 SUMMARY

The Centre-State fiscal relations are very important in the Indian federation. We have learnt how far constitutional division of powers and functions are in favour of the center and the basic reasons for the emergence of fiscal imbalances? We have also learnt the various methods of fiscal adjustment provided in the constitution, the role of the Finance and Planning Commission and various types of fiscal transfers from the Centre. There have been several fiscal problems between the Centre and the States eventhough the fiscal transfers have increased by so many times in the last five decades. The issues or measures, as viewed by the States, to improve the Centre-State fiscal relations are also explained. There is a need for evolving cooperative federalism by initiating necessary measures in India.

23.13 CHECK YOUR PROGRESS

I. Answer the following questions in about 4 or 5 lines each.

1. What are the tax powers of the Central Government?
2. What are the functions of the Central Finance Commission?
3. Explain the alternative scheme.
4. Explain the Calamity Relief Fund.

23.14 MODEL EXAMINATION QUESTIONS

I. Answers the following questions in about 30 lines each.

1. Explain briefly the Centre-State financial relations in India.
2. Explain the major recommendations of the Central Finance Commissions.

II. Answer the following questions in about 15 lines each.

1. Explain the role of the Planning Commission.
2. Discuss the Grants-in-aid made by the Central Government.

23.15 SUGGESTED BOOKS

1. B.P. Tyagi : **Public Finance**
2. R. Sudarsana Rao : **Federal Fiscal Transfers in India**
3. H.L. Bhatia : **Public Finance**
4. R. Canvery and Others : **Public Finance (Fiscal Policy)**

- Prof. R. Sudarsana Rao

UNIT - 24 : FISCAL POLICY AND DEVELOPING COUNTRIES

Contents

24.0 OBJECTIVES

The main purpose of this unit is to explain the meaning and the role of fiscal policy in developed economics and developing economy like India based on macro – economic analysis and also traces the evolution of fiscal theory. It also tried to explain the problems of fiscal policy being faced by the developing countries.

After reading the unit, you will be able to

- discuss the evolution of fiscal policy;
- identify the major objective and instruments of fiscal policy in developed and countries;
- identify the problems of Indian fiscal policy.

24.1 INTRODUCTION

In the last three blocks, we have discussed about introduction to public finance, public revenue and taxation and public expenditure and public debt. In this unit, let us try to learn about the fiscal policy in India and developing countries the role of fiscal policy has lot of significance in the sense that every country is anxious to gear up public finance in pursuit of the twinaims of stability and growth.

24.2 MEANING OF FISCAL POLICY

Fiscal Policy is essentially concerned with the "Overall" effects of government's fiscal operations, namely, its total expenditure and taxation on macro economic aggregates of national income, output, price stability, etc. What distinguishes fiscal policy from other aspects of public finance is its central concern, as stated above with the aggregate variables. An individual tax or an item of government expenditure has, generally speaking, a specific and narrow objective such as raising government revenue, or reduction or increase in consumption. One may argue that the aggregate taxation or government expenditure is arrived at by the addition of individual items. To certain extent this is true, but they need to be separated for analytical purposes as well as for policy making. The boundary between fiscal policy and other aspects of public finance, no doubt is rather thin and, in ultimate analysis, remains arbitrary. In fact, decisions about the "over-all" variables are made up of decisions about particulars. Any decision that has over-all effects will also exercise particular effects on particular individuals, enterprises or sectors of the economy.

It is also useful to make a distinction between fiscal policy and monetary policy, the two policies which are inter-connected in several ways. Monetary policy is generally defined as a policy with respect to quantity of money, while fiscal policy is a policy with respect to all government free sources and uses of funds and their composition. Arthur Smithies defines fiscal policy as "a policy, under which the government uses its expenditure and revenue programmers to produce desirable effects and avoid undesirable effects on the national income, production and employment".

In other words, fiscal policy denotes the use of budgetary instruments (taxation, public borrowing and credit creation and public spending) for advancement of the socio-economic goals of a country. Thus seen, Dirk J. Wolfson aptly describes fiscal policy as comprising "all measures to increase the general welfare through the public control of resources by means of public spending, resouce mobilization, and rate setting in public and semipublic enterprises". As we would discuss later, Wolfson's definition is especially relevant for a developing country, situation such as India's.

24.3 EVOLUTION OF FISCAL POLICY

Classicals' View,

The modern-day concept of fiscal policy, as an active instrument: to promote over all economic objectives, is only a little half-a-century old. Prior to 1930s (classical) economists emphatically belived that the scope of fiscal activities of the governtment was very restricted. Except to the extent that certain collective wants, such as maintenance of law and order, national defence and provision for some essential services, have to be satisfied through public spending, such economists argues, government ought not to interfere with of economy. Neither fiscal theory nor fiscal practice before the 1930s was concerned, in any essential way, with maintaining high level of employment and stabilizing the rate of growth of total national output: it was believed that in the long run the economy would tend to produce at a rate determined by "real" factors- the supply of labour and capital and the state of technology. Prices and wage rates, under this system, would adjust to changes in total money expenditure for goods and services and thus would leave real output unchanged. Thus, if any adjustment were needed, they could be effectively carried out through monetary policy, following the famous quantity theory of money.

However, it will be misleading to conclude that for the classical economists (or even earlier, in the tradition of scholastic economic thought), there was no concern for fiscal policy. So long there has been governments, there has been a fiscal policy. The need to provide for collective want satisfaction, through what came to be known as "public goods", was well recognised. For instance, Adam Smith, apart from emphasizing external and security as "primary" tasks for any government, advocated certain economic and social ends: "erecting and maintaining those public institutions and works, which though they may be in the highest degree advantageous to a great society, could never repay the expense to any individual". In modern idioms, this statement could be regarded as an advocacy for social capital formation by the state. However, it remains true that the earlier economists' justification for resource allocation to satisfy certain collective wants and the burden distribution of its financing (namely, taxation) was primarily based on moral and humanitarian grounds, and not on economic ground. If we were to sum-up the basic principles of classical (and to a large extent, neoclassical also) fiscal policy, the following would emerge as its key-stones:

Basic Principles or Classical Fiscal Policy

i) Government expenditure beyond what is required to maintain essential services, including public works, should be avoided.

ii) Government should not in any case, undertake spending beyond the revenues that can be raised through taxation. 'Balanced budget' must guide the Fiscal Policy as a "fundamental article of financial faith". Any budgetary deficit would lead only to inflationary price increase, under the classical assumption of full employment.

iii) As a corollory to (h) above, public borrowing should be avoided as it will withdraw resources from productive employment

iv) Taxes should be kept as low as possible. The distribution of tax burden should be 'fair' and 'just'. Hence, "public expenditure was required only to secure the collective consumption of certain goods and service and that taxation was a contribution to defray the costs incurred for this purposes". It was premised that the government should pay its way just like an individual or firm.

Keynesian view

The above thinking about the nature and role of fiscal policy underwent a radical and fundamental change with the advent of Keynesian economic analysis in the 1930s. John Maynard Keynes effectively argued that the government finances could be manipulated to influence the level off effective demand. For achieving full employment, it is crucial that available resources (1which may be considered as fixed in -short-run) ought tube matched probable demand or aggregate (money) expenditure. Arranged in terms of integrated national income accounts, one can estimate : (A) total resources available, and (B) probable demand (consumption and investment spending of both the public and private sectors). If A>B. there is a 'gap' which must be filled in by fiscal/public policy measures. Such a gap may also arise if A.B, which should also be adjusted by fiscal measures.

This is infact, the well-known Keynesian equation : $Y = C+I+G$. The question of filling-this gap through the use of fiscal instruments (government spending, taxation, and defict financing) has been conceptualized under the term" contemporary finance". (associated with the contribution of A>H. Hansen).

A.P. Lerner's Functional Finance

However, Keynesian Fiscal theory was further refined and fuller culmination in A.P. Learner's "Functional finance" as enunciated in his famous book, *Economics of Control*. This approach to Fiscal Policy, as assumed up by Jesse Burkhead, "views government revenue and expenditure and government debt solely as instruments for the control of aggregate community expenditure. These are the tools and the goal is maintenance of stable employment at constant prices. "Under this scheme, taxes for instance should not be viewed as sources of raising revenue, but essentially as instruments for affecting private consumption and investment expenditure. These views are obviously in complete contrast to the views of classical or pre-Keynesian economists, as discussed earlier.

The major Implications of the Functional Finance approach are :

i) Government finances be dealt on a 'functional' basis, and revenue and expenditure should not be considered solely by the requirements of securing collective consumption.

ii) The budget need not always be balanced. It is, in fact, less desirable (to balance the budget) under conditions economic recession.

iii) Similarly, public expenditure (or for that matter, taxation) should not be considered for its direct benefits, but for, the sake of indirect impact it produces in the form of raising effective demand.

With some knowledge of macroeconomic analysis, it is not difficult to comprehend as to how such a fiscal policy functions. Returning to the equation : $Y = C+I+G$, or allowing for nation's exports and imports : $Y = C+I+G+X-M$, the public spending can be directly controlled by the government, while other variable can be indirectly affected through taxation and other fiscal measures. The Keynesian analysis, thus brings the fiscal policy into the mainstream of economic analysis.

24.4 FISCAL POLICY FOR GROWTH AND DEVELOPMENT

Ms. U.K. Hicks rightly observes

"Now that fiscal policy has been developed as an established economic function of the government, every country is anxious to gear its public finances in pursuit of tile twin aims of stability and growth; but their relative importance is very differently regarded from one country to another. A poor and backward country will strive to put most of the emphasis on growth, especially if... its population is expanding rapidly". In the context of this statement, one can examine the role of fiscal policy in a developing country like ours.

In spite of its revolutionary impact on economic theory , ' compensatory' fiscal policy has little relevance for present-day developing countries. Compensatory finance was evolved in the context of cyclical fluctuations and is primarily suited to the conditions of advanced capitalist economies. In a developing country, the actual constraint to a steady growth of income and output is certainly no the lack of effective demand, but the structural bottlenecks (on supply side) – reflected in the form of paucity of resources (social overhead capital, in particular) and the low levels of productivity of the available resources. Resource development of growth, in this sense, is dependent on (a) the size of capital formation of savings, and (b) productivity of capital including the human capital. (The logic of this statement is based on Harrod – Domar growth model). Therefore, the primary task of fiscal policy for a developing country like ours is additional resource mobilisation. However, any consideration of such resource mobilization without sufficient reference to the strategy of development adopted by the country would be meaningless. The pattern of resources to the strategy of development adopted by the country would be meaningless. The pattern of resource mobilization, its use and effectiveness (all basic questions of fiscal policy) are directly linked to the development strategy. India, as we know, has adopted the strategy of planned development wherein public sector had been assigned a key role. As much as 60 per cent of our investments (although the exact proportion varies from plant-to plan) has been allocated to the public sector. Other development outlays of the plan also significantly contribute to the national development. In order to finance this large volume of public sector outlays as well as to promote private sector investment, especially in a democratic society, there is no alternative to fiscal policy. Fiscal policy, says R.J. Chelliah, " is the most powerful and the least undesirable weapon of control which the state can employ to promote economic development.

Fiscal policy for a developing economy, in the light of the above, should aim at raising the incremental saving ratio". It means that an increasingly higher proportion of additional income should be saved and not allowed to be used for consumption. Further-more, extreme inequalities of income and wealth are, in several ways, detrimental to the cause of development. Inequalities of this nature germinate serious socio-economical crises. For instance, while there are surplus stocks of food grains, there is little of purchasing power or incomes with the vast multitude of the poor to buy them. Again, on welfare grounds, government's spends the poor to buy them. Again, on welfare grounds.. Government's spending programmes will be required to meet the special needs of backward regions. And depressed social sections of the population. Lastly a reasonable degree of price stability is essential of economic growth and development continuously raising price level may jeoparadize our development efforts. However the question of fiscal measures for price stability is indeed a tricky one, since a certain degree of price increase is not only inevitable but has been found desirable for expanding economic activity.

24.5 OBJECTIVES OF FISCAL POLICY – DEVELOPED AND DEVELOPING COUNTRIES

Fiscal policy has different objectives in developed countries and underdeveloped countries as the problems differ in different countries.

Fiscal Policy and Developed Countries

The following are the objectives of fiscal policy in the developed countries.

1. To maintain economic stability
2. To maintain full employment
3. To control inflation and deflation
4. To maintain a high rate of economic growth.

FISCAL POLICY AND DEVELOPING COUNTRIES

Keynesian analysis of fiscal policy is applicable to advanced economies. Fiscal policy in a developing country both in respect of its objectives and content. In a developing economy, the government has to play an increasing role in promoting economic development, which is the primary aim of its economic policy. Fiscal policy becomes an important instrument for achieving the above aim. There are four essential objectives of fiscal policy in a developing country.

a) Promotion and acceleration of capital formation in the public and the private sector.

b) Mobilization of real of finical resource for the public sector without hampering the expansion of resources for the private sector.

c) Promotion and maintenance of reasonable degree of stability in the economy in keeping with the requirement of economic development.

d) Accelerating economic growth by suitable fiscal policy measures.

e) Redistribution of national income so as to promote distributive justice

Some times, there may be a clash between one aim and the other. Efficient management of finance, therefore, involves affecting a suitable harmony among all these aims.

1. Capital Formation

Fiscal policy can be used as an instrument of capital formation in two ways.

a) by expanding investment in public and private sectors.
b) by directing the flow of resources from socially less desirable to more desirable investment channels.

Increases in public sector investment on overheads such as transport, communication, power and irrigation etc is very important for development. Private sector does not come forward in these areas.

Fiscal policy can stimulate investment in private sector by giving concession in taxation, provision of finance, subsidies. Fiscal incentives are also used to divert productive resources from socially less desirable to more desirable direction. It may also be used for large-scale investment expenditure on public health and education, which leads to human capital formation.

2. Mobilisation of Resources

In developing countries, the propensity to consume is high and the propensity to save is low mainly on account of low levels of income. Even when incomes rise, people spend a large part of their incomes on luxury consumption. Fiscal policy plays an important role in mobilizing resources for development. The following methods can be used to mobilise resources.

1. Fiscal policy can used to stimulate private savings,

2. Taxation may be used as a source of development funds,

3. Profits from public enterprises may be used as surplus for reinvestment.

4. Utilisation of surplus labour for development by providing suitable employment.

5. Deficit financing can be used as instrument of development.

3. Economic stability

Economic instability in developing countries normally caused by instability in developed countries. The exports of the developing countries usually consist of primary products which are particularly sensitive to fluctuations of demand abroad. These fluctuations are more in prices than in output. As a consequence, there will be fluctuations in foreign exchange earnings. Fiscal policies can help to a great extent in maintaining stability in prices and earnings etc.

4. Accelerating Economic growth

Achieving higher rate of economic growth is one of the important objectives of economic policy in underdeveloped countries. In accelerating the rate of growth through public expenditure and taxation policies, fiscal policy plays an important role. Fiscal policy also helps in improving the savings and investment which in turn would lead to rapid economic growth.

5. Achievement of distributive Justice

Developing countries suffer from marked inequalities in incomes and wealth. A mere increase in per capita income does not necessarily lead to an increase in the welfare of all sections of the people, unless an equitable distribution o f the rising national product is assured. It has been rightly pointed out by some economists that expansion in inequalities in income and wealth are detrimental to economic development in so far as they reduce the nutritional, health and living standards of the people, create excessive demand for imported luxury consumption goods etc., Besides, extreme inequalities create political and social discontentment which lead to economic instability. Through redistributive public expenditure and tax policy, we can reduce inequalities in income and wealth.

24.6 FISCAL INSTRUMENTS AND THEIR TASKS IN A DEVELOPING COUNTRY

How various fiscal instruments and fiscal choices can be used to achieve objectives? In this regard, Table – 24.1 specifies the major fiscal instruments or areas of activity and their tasks.

Table - 24.1: Fiscal Instruments and Their Tasks in a Developing Economy

Policy Instruments	Tasks/Activity
1. Public Expenditure	a) Direct spending on public sector capital formation, especially on social overheads. b) Indirect expenditure on promoting private investment, including R & D. c) Priority to anti-poverty programmers and desirable welfare expenditure (for instance, family welfare, literacy, and public wealth).
2. Taxes and Subsidies	a) Heavy taxes on undesirable consumption. b) Special tax concession/subsidies for (i) promoting savings, (ii) affecting changes in sectoral/regional distribution of investment. c) Progressive taxation to curb concentration of income and wealth.
3. Choice of Revenue adjustment	Source of government finance varying consequential effects on price stability and other object. For instance, an increase in general or overall prices would different in terms of its magnitude, social implication and time-path of change while the same amount of revenue is raised by indirect taxes, deficit finance, or upward price-revision of public sector produced input goods (energy,steel, etc.). Hence a 'least cost' solution has to be strived for in terms of resource mobilization through the alternative revenue sources.
4. Loan Finance and Debt Management	a) Public borrowing, primarily, at technique for transferring savings from private to the public sector.

	b) Minimum, use of borrowing from the central banks and commercial banks. c) Debt management related to the needs of developing the financial infrastructure and the regulation of overall liquidity conditions.
5. Fiscal Co-ordination	a) Economic planning and fiscal policy coordination b) Need for coordination budgetary policies of the Central and State governments. c) Coordination among the various aspects of fiscal policy.

24.7 PROBLEMS OF INDIAN FISCAL POLICY

Let us now discuss some of the areas of Indian fiscal policy, of late, especially since the mid-70s, the government fiscal operations have shown strains and new pressures. Below is a brief summary of such issue.

24.7.1 DISEQUILIBRIUM BETWEEN REVENUE AND EXPENDITURE

There has been a tendency towards persistent dis-equilibrium between the government revenues and current expenditure. As observed from the combined revenue budgets of central-state governments over the period, it was found that desequilibrium between revenue and expenditure has been showing an increasing trend, thus eroded the capacity of government to generate the surplus that are necessary to expand the essential management.

24.7.2 NOT SO BUOYANT AND RESPONSIVE

The tendency of non-plan current outlay to expand much faster than the tax revenues suggest that "expenditures are more responsive to inflation than as revenues". This means that the Indian tax structure has not been sufficiently buoyant and responsive to growth in income.

24.7.3 BLACK OR UNACCOUNTED MONDY

The conclusion under (b) above is also demonstrated by the fact that the share of direct taxes (on income and wealth) in the total tax revenue, as well as percentage of GNP, has declined in the recent years, despite economic expansion. This obviously means a serious failure of the tax structure in terms of both tapping additional income as well as to reduce concentration of income and wealth. Perhaps a major part of the problem arises on account of the existence and growth of black or unaccounted money incomes which escape the tax net. The tax evasion remains the major menace to India's fiscal policy.

24.7.4 LOW RETURNS ON PUBLIC INVESTMENT

Added to the problem of lack of buoyancy of the tax system, there is the question of low returns of public investment. But it is well known that a vast majority of these enterprises have incurred huge losses and the overall return on public investment has been quite low. This means that no surplus funds could be available from the public sector for further expansion and growth. The argument that public enterprises have been established for certain 'social' objective and not for profits, has an obvious limit too.

24.7.5 DEFICIT FINANCING

As a natural corollary to the above developments, government had to resort to deficit financing on an in creasing scale leading to serious inflationary prices increase along with con-commitant socio-economic repercussions. This constitutes a serious fiscal hazard to economic stability. Furthermore, governmental fiscal management of budgetary deficits (overall) has been hardly efficient. Over the recent years, the Central and State Government have preferred to resort to hikes in administered price (of input goods produced or controlled by the public sector) as against additional taxation and direct deficit financing. The choice has not been made in terms of any strict economic rationality (such as least inflationary inpact) but largely as a matter of political convenience. This further aggravated the inflationary situation, resulting in a variety of distortions in resource use.

24.7.6 LACK OF EFFECTIVE PUBLIC EXPENDITURE POLICY

Yet another area of critical importance to fiscal policy relates to lack of effective public expenditure policy. The existing procedures for scrutiny of public expenditure, especially of non-development nature, lack any meaningful orientation in terms of cost-effective analysis.

24.7.7 LACK OF FISCAL DISCIPLINE

There is an overall lack of fiscal discipline in the country, whether it be a question of tax procedures, deficit financing or expenditure control.

The above is certainly not a fully exhaustive list of fiscal problems facing our country, but it provides a gainful insight into various dimensions relating to economic growth, stability and social justice.

24.8 SUMMARY

In this unit, we have learnt the various approaches of fiscal policy through the evolution of fiscal policy like classical, Keynesian and post-Keynesian theory. The classical economists believed in least governmental interference with the economy. Here the fiscal policy plays a passive role limitary to satisfactory of limited collective wants and distributive justice. With the academy of Keynesian economic analysis an active fiscal policy has become the pass word in the modern times. The strongest expression of Keynesian fiscal policy is found in the concept of functional finance. However it is observed that much of Keynesian and post-Keynesian analysis is not relevant for the developing countries to give top priority to growth and development, rather than restrict themselves to a gap filling role for economic stability.

As the end, it can be concluded that fiscal policy alone cannot help the developing countries in achieving rapid economic development without suitable monetary and other policies. Hence fiscal policy should be used as an integral part of overall economic policies to realize the goals of country.

24.9 CHECK YOUR PROGRESS

I. Answer the following questions in about 4 or 5 lines each.

1. What are the basic principles of classical fiscal policy?
2. What is the Keynesian's view or fiscal policy?
3. What is functioned finance?

4. What are the objectives of fiscal policy in respect of developing countries?
5. List the major fiscal instruments.
6. Identify some issues of Indian fiscal policy.

24.10 MODERN EXAMINATIONS QUESTIONS

I. Answer the following questions in about 30 lines each.

1. What do you mean by fiscal policy? Briefly trace the evolution of fiscal policy.
2. Explain the classical views or fiscal policy.
3. Explain the terms "compensationery" finance and Functional finance.
4. What are the objectives of fiscal policy in developing countries?
5. Discuss the major fiscal problems in India.
6. Explain from various fiscal instructions can be used for economic policy objectives in India.

II. Answer the following questions in about 15 lines each.

1. What are the objectives of fiscal policy in the developed economies?
2. What do you mean by resource mobilization in the context of Indian Economy.
3. What do you mean by deficit financing.
4. What are the various instruments of fiscal policy.

24.11 SUGGESTED BOOKS

1. B.P. Tyagi : **Public Finance**
2. Varish and H.S. Agarwal : **Public Finance**
3. Andrey & Sundaram : **Public Finance**
4. Raja J.chellaiah : **Fiscal policy in under developed countries**

Prof .N. Linga Murthy

DR. B.R. AMBEDKAR OPEN UNIVERSITY
HYDERABAD

FACULTY OF SOCIAL SCIENCES

U.G. PROGRAMME II YEAR (3 YEARS DEGREE) EXAMINATION

SUB: MONEY, BANKING AND PUBLIC FINANCE

Time : 3 Hrs. **Max. Marks: 100**
Min. Marks: 35

SECTION – A (Marks: 4 x 15 = 60)

Instructions to the candidates

* Answer any FOUR of the following eight questions in about 30 lines each.
* Each question carries 15 marks.

1. Explain the meaning of money and its functions.
2. Explain the differences between the classical and Keynesian theory of money and prices.
3. Examine the merits and demerits of Fisher's equation.
4. What is credit control? How do the qualitative instruments work to control the price stability?
5. Examine the role and functions of commercial banks.
6. Classify the Public revenue into various categories.
7. What is inflation? How do you measure it?
8. Explain the various causes to the growth of Public Expenditure in India.

SECTION – A (Marks: 5 x 8 = 40)

Instructions to the candidates

* Answer any FIVE of the following eight questions in about 15 lines each.
* Each question carries 15 marks.

9. Explain the concept of Equity of sacrifice.
10. Answer any two of the following concepts.
    1. Stagflation
    2. Debt burden
    3. Expenditure tax
    4. Collective good
11. Answer any two of the following questions.
    1. What is priority sector?
    2. Marginal efficiency of capital.
    3. Price stability
    4. Cost Reserve Ratio
12. Compare the Quantity theory of money of Friedman and classicals
13. What are the instruments of monetary policy.
14. Explain the advantage of Direct Taxes.
15. Explain the limitations of the principle of maximum social advantage?
16. Explain the impart of public expenditure on the distribution of income.
17. Explain briefly the Centre-State financial relations in India.
18. What are the differences between public finances and private finances.