



A Complete
Beginner's
Guide

Principles of **AGRICULTURAL ECONOMICS**



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LECTURE NOTES

Course No. AECO 141

Principles of Agricultural Economics

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Lecture no.1**Economics – Meaning, Definitions, Subject matter of Economics – Traditional approach – consumption, production, exchange and distribution****ECONOMICS**

Economics is popularly known as the “Queen of Social Sciences”. It studies economic activities of a man living in a society. Economic activities are those activities, which are concerned with the efficient use of scarce means that can satisfy the wants of man. After the basic needs viz., food, shelter and clothing have been satisfied, the priorities shift towards other wants. Human wants are unlimited, in the sense, that as soon as one want is satisfied another crops up. Most of the means of satisfying these wants are limited, because their supply is less than demand. These means have alternative uses; there emerge a problem of choice. Resources being scarce in nature ought to be utilized productively within the available means to derive maximum satisfaction. The knowledge of economics guides us in making effective decisions. The subject matter of economics is concerned with wants, efforts and satisfaction. In other words, it deals with decisions regarding the commodities and services to be produced in the economy, how to produce them most economically and how to provide for the growth of the economy.

Subject matter of economics

Economics has subject matter of its own. Economics tells how a man utilises his limited resources for the satisfaction of unlimited wants. Man has limited amount of time and money. He should spend time and money in such away that he derives maximum satisfaction. A man wants food, clothing and shelter. To get these things he must have money. For getting money he must make an effort. Effort leads to satisfaction. Thus, wants- efforts- satisfaction sums up the subject matter of economics initially in a primitive society where the connection between wants efforts and satisfaction is direct.

Divisions of Economics

The subject matter of economics can be explained under two approaches viz., Traditional approach and Modern approach.

Traditional Approach

It considered economics as a science of wealth and divided it into four divisions viz., consumption, production, exchange and distribution

1. **Consumption:** It means the use of wealth to satisfy human wants. It also means the destruction of utility or use of commodities and services to satisfy human wants.
2. **Production:** It is defined as the creation of utility. It involves the processes and methods employed in transformation of tangible inputs (raw materials, semi-

finished goods, or subassemblies) and intangible inputs (ideas, information, know-how) into goods or services.

3. **Exchange:** It implies the transfer of goods from one person to the other. It may occur among individuals or countries. The exchange of goods leads to an increase in the welfare of the individuals through creation of higher utilities for goods and services.
4. **Distribution:** Distribution refers to sharing of wealth that is produced among the different factors of production. It refers to personal distribution and functional distribution of income. Personal distribution relates to the forces governing the distribution of income and wealth among the various individuals of a country. Functional distribution or factor share distribution explains the share of total income received by each factor of production viz., land, labour, capital and organisation.

Lecture No.2

Modern Approach – Microeconomics and macroeconomics - Methods of economic investigation – Deduction & , Induction

Modern Approach :

This approach divides subject matter of economics into two divisions i.e., micro economics and macro economics. The terms ‘micro-‘ and ‘macro-‘ economics were first coined and used by Ragnar Frisch in 1933.

1. Micro-Economics or Price Theory:

The term ‘micro-economics’ is derived from the Greek word ‘micro’, which means small or a millionth part. It is also known as ‘price theory’. It is an analysis of the behaviour of small decision-making unit, such as a firm, or an industry, or a consumer, etc. It studies only the employment in a firm or in an industry. It also studies the flow of economic resources or factors of production from the resource owners to business firms and the flow of goods and services from the business firms to households. It studies the composition of such flows and how the prices of goods and services in the flow are determined.

A noteworthy feature of micro-approach is that, while conducting economic analysis on a micro basis, generally an assumption of ‘full employment’ in the economy as a whole is made. On that assumption, the economic problem is mainly that of resource allocation or of theory of price.

Importance of Micro-Economics: Micro-economics occupies a very important place in the study of economic theory.

- **Functioning of free enterprise economy:** It explains the functioning of a free enterprise economy. It tells us how millions of consumers and producers in an economy take decisions about the allocation of productive resources among millions of goods and services.

- Distribution of goods and services: It also explains how through market mechanism goods and services produced in the economy are distributed.
- Determination of prices: It also explains the determination of the relative prices of various products and productive services.
- Efficiency in consumption and production: It explains the conditions of efficiency both in consumption and production. Formulation of economic policies: It helps in the formulation of economic policies calculated to promote efficiency in production and the welfare of the masses.

Limitations of Micro-Economics: Micro-economic analysis suffers from certain limitations:

- It does not give an idea of the functioning of the economy as a whole. It fails to analyse the aggregate employment level of the economy, aggregate demand, inflation, gross domestic product, etc.
- It assumes the existence of ‘full employment’ in the whole economy, which is practically impossible.

2. **Macro-Economics or Theory of Income and Employment:**

The term ‘macro-economics’ is derived from the Greek word ‘macro’, which means “large”. Macro-economics is an analysis of aggregates and averages pertaining to the entire economy, such as national income, gross domestic product, total employment, total output, total consumption, aggregate demand, aggregate supply, etc. Macro-economics looks to the nation's total economic activity to determine economic policy and promote economic progress.

Importance of Macro-Economics:

- It is helpful in understanding the functioning of a complicated economic system. It also studies the functioning of global economy. With growth of globalisation and WTO regime, the study of macro-economics has become more important.
- It is very important in the formulation of useful economic policies for the nation to remove the problems of unemployment, inflation, rising prices and poverty.
- Through macro-economics, the national income can be estimated and regulated. The per capita income and the people’s living standard are also estimated through macro-economic study.

Limitations of Macro-Economics:

- Individual is ignored altogether. For example, in macro-economics national saving is increased through increasing tax on consumption, which directly affects the consumer welfare.
- The macro-economic analysis overlooks individual differences. For instance, the general price level may be stable, but the prices of food grains may have gone up which ruin the poor. A steep rise in manufactured articles may conceal a calamitous

fall in agricultural prices, while the average prices were steady. The agriculturists may be ruined.

DEFINITIONS OF ECONOMICS

The word economics has been derived from the Greek Word “OIKONOMICAS” with “OIKOS” meaning a **household** and “NOMOS” meaning **management**. Kautilya, the great Indian statesman, named his book on state crafts as ‘Arthashastra’.

WEALTH DEFINITION OF ECONOMICS : Adam Smith defined Economics as “An enquiry into the nature and causes of wealth of nations” in his book, entitled ‘Wealth of Nations’. He is regarded as the “Father of Economics”.

Criticisms of Adam Smith definition:

WELFARE DEFINITION OF ECONOMICS : Alfred Marshall in his book “Principles of Economics” defined “Political Economy or Economics as a study of mankind in the ordinary business of life, it examines that part of individual and social action which is most closely connected with the attainment and with the use of the material requisites of well-being. Thus it is on the one side a study of wealth, and on the other, and more important side, a part of the study of man.

Criticisms of Alfred Marshall definition:

SCARCITY DEFINITION OF ECONOMICS: In his publication ‘Nature and Significance of Economic Science’ Lionel Robbins formulated his conception of Economics based on the scarcity concept. “Economics is the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses.

GROWTH DEFINITION OF ECONOMICS: John Maynard Keynes is known as the Father of Modern Economics. He defined economics as “the study of the administration of scarce resources and of the determinants of employment and income”.

In the words of Nobel prize winner Prof. Samuelson, “Economics is the study of how people and society end up choosing with or without the use of money, to employ scarce productive resources that could have alternative uses, it produces various commodities over time and distributes them for consumption, now or in the future, among various persons and groups in society. It analyses costs and benefits of improving patterns of resources allocation.”

Importance

Economics analyses the economic problems of the society. It plays a major role in the economic development of the country by proposing the optimum allocation of resources.

Knowledge of economics is useful in understanding various national and international events and trends.

Amarthya Sen, Bharat Ratna recipient was awarded Nobel Prize for Economics.

Methods of Economics Investigation :

There are two methods of economic investigation that are used in economic theory i.e., 1) Deductive method and 2) Inductive Method

1. Deductive Method: This method involves reasoning or inference from the general to the particular or from the universal to the individuals. It is also known as the abstract, analytical, hypothetical or apriori method.

Deduction involves four steps:

- (1) Selecting the problems
- (2) Formulating the assumptions
- (3) Formulating the hypothesis through the process of logical reasoning whereby inferences are drawn and
- (4) Verifying the hypothesis.

2. Inductive Method: This method is also known as Concrete method, historical method or realistic method. It involves reasoning from particulars to the general or from the individual to the universal. This method derives economic generalisations on the basis of experiments and observations. In this method detailed data are collected on certain economic phenomenon and effort is then made to arrive at certain generalizations which follow from the observations collected.

Is Economics a Science or an Art

Science is a systematized body of knowledge in which the facts are so arranged that they speak for themselves. Judged by this standard, economics is certainly a science.

Economics is also an art because it lays down precepts or formulas to guide people to reach their goals.

Economics therefore is a science as well as an art.

Economics – A Social Science

Economics deal with the activities of people living in an organized community or society, in such activities which relate to the earning and use of wealth or with the problems of scarcity, choice and exchange. Hence it called a social science.

Positive Economics and Normative Economics:

1. Positive economics is concerned with 'what is' whereas Normative economics is concerned with 'what ought to be'.
2. Positive economics describe economic behaviours without any value judgment while normative economics evaluate them with moral judgment.
3. Positive economics is objective while normative economics is subjective.
4. The statement, " Price rise as demand increase" is related to positive economics, whereas the statement, " Rising prices is a social evil" is related to normative economics.

Lecture No.3

Agricultural Economics – Definitions, Meaning, Importance of Agricultural Economics – Branches of agricultural economics

AGRICULTURAL ECONOMICS

Introduction

A study of economic principles, with emphasis on their application to the solution of farm, agribusiness, and agricultural industry problems in relationship to other sectors is known as Agricultural Economics. In other words, it applies principles of economics to issues of agricultural production, natural resources, and rural development. It mainly focuses on principles of microeconomics.

Agricultural economics began in the 19th century as a way to apply economic principles and research methods to crop production and livestock management. The roots of the discipline, however, can be found in the writings of the classical economists like Adam Smith.

The word, agriculture comes from the Latin word *ager*, referring to the soil and *cultura*, to its cultivation. Agriculture, in its widest sense can be defined as the cultivation and /or production of crop plants or livestock products. It is synonymous with farming: the field or field –dependent production of food, fodder and industrial organic materials.

Having known the meaning of agriculture, let us know what economics is. Economics is the science that studies as to how people choose to use scarce productive

resources to produce various goods and to distribute these goods to various members of society for their consumption. Now having defined agriculture and economics, we look into the field of agricultural economics.

Definition

Agricultural economics is an applied field of economics in which the principles of choice are applied in the use of scarce resources such as land, labour, capital and management in farming and allied activities. It deals with the principles that help the farmer in the efficient use of land, labour and capital. Its role is evident in offering practicable solutions in using scarce resources of the farmers for maximization of income.

Prof. Gray has defined agricultural economics as “The science in which the principles and methods of economics are applied to the special conditions of agricultural industry”

According to **Prof. Hibbard**, “Agricultural economics is the study of relationships arising from the wealth-getting and wealth-using activity of man in agriculture”

Snodgras and Wallace defined agricultural economics as “an applied phase of social science of economics in which attention is given to all aspects of problems related to agriculture.”

Importance of agricultural economics

Akin to economics, the field of agricultural economics finds to seek relevance between cause and effect using the most advanced methods viz, production functions and programming models. It uses theoretical concepts of economics to provide answers to the problems of agriculture and agribusiness. Initially earnest efforts were made by the economists to use the economic theory to agricultural problems. Now the subject matters of agricultural economics is enriched in many directions and fields taking the relevant tools of sciences particularly mathematics and statistics. Agricultural depression which occurred in last quarter of 19th century and middle of 20th century brought about increased attention and concern to find out plausible cause and solutions for world agricultural depression. Here in this context the contribution made by agronomists, economists, horticulturists, etc., is noteworthy. Agriculture is the integral part of the world food system, having the foundation links between crops and animal production system. Agricultural economists here have to play a major role in understanding the intricacies involved in the foundation systems. Knowledge regarding problems in production, finance, marketing and government policies and their impact on production and distribution is very essential to find out suitable solutions for the farm problems. Students of agricultural economics are taught the subject disciplines viz.,

microeconomics, macroeconomics, agricultural production economics, farm management, agricultural marketing etc., to fulfill the requirements.

Lecture No.4.

Agricultural production economics- Meaning- Definitions- Subject matter – Objectives - Farm Management – Meaning – scope – Definitions- Objectives

Agricultural production economics

Agricultural production economics is a field of specialization within the subject of Agricultural Economics. It is concerned with the selection of production pattern and resource use efficiency in order to optimize the objective function of farming community or the nation within a framework of limited resources. The goals of agricultural production economics are:

- (1) To provide guidance to individual farmers in using their resources most efficiently and
- (2) To facilitate the most efficient use of resources from the standpoint of economy.

Definition

Agricultural production economics is an applied field of science wherein the principles of choice are applied to the use of capital, labour, land and management resources in the farming industry.

Subject matter

Agricultural production economics involves analysis of production relationships and principles of rational decisions in order to optimize the use of farm resources on individual farms and to rationalize the use of inputs from the nation's point of view. The primary interest is applying economic logic to problems that occur in agriculture.

Agricultural production economics is concerned with the productivity of inputs. As a study of resource productivity, it deals with resource use efficiency, resource combination, resource allocation, resource management and resource administration.

The subject matter of production economics involves topics like factor-product relationship, factor-factor relationship and product-product relationship, size of farm, returns to scale, credit and risk and uncertainty, etc.

Objectives:

1. To determine and outline the conditions which give the optimum use of capital, labour, land and management resources in the production of crops and livestock.
2. To determine the extent to which the existing use of resources deviates from the optimum use.
3. To analyse the forces which condition existing production pattern and resource use.
4. To explain means and methods in getting from the existing use to optimum use of resources.

Farm management

In the context of increased accent on commercialization there is a greater need to improve the managerial abilities of the farmers. So far the managers in general have responded admirably to technological changes that occurred in Indian agriculture. But response of some of the farmers is not in line with needed direction. We can always differentiate those farmers performing against those not performing. Hence, it is of paramount importance for the farm managers to identify the changes that take place and respond suitably, for any lapse on his part does not help him to survive in the changing economy. This speaks of the need for the managers to sharpen the skills to tackle varying problems that crop up from time to time in the organization of farm business.

The role of farm management, therefore, is to supply the information from the farmers for sound planning. All farm management tools are helpful to the farmers in solving their managerial problems for successful operation of the farm business.

Scope

Farm management is considered to fall in the field of microeconomics. It treats every farm as separate unit because of differences in the ability of resources, problems and potentiality. The main concern of farm management is the farm as a unit. Farm management deals with the allocation of inputs at the level of individual farms. The objective of farm management is to maximize returns from the farm as a whole. It is interested in the profitability along with practicability. What crops, livestock enterprises and their combination to grow, what amount of resources to be applied, how the various farm activity to be performed, etc., all these fall within the scope of farm management.

Definitions

Farm management is defined as the science that deals with organization and operation of the farm in the context of efficiency and continuous profits **(J. N.Efferson)**

Farm management is defined as the art of managing a farm successfully as measured by the test of profitableness **(Gray)**

Farm management is a branch of agricultural economics, which deals with wealth earning and wealth spending activities of farmer in relation to the organization and operation of

the individual farm unit for securing maximum possible net income (**Bradford and Jhonson**)

Objectives

1. To examine production pattern and resource use on the farm.
2. To identify the factors responsible for the present production pattern and resource use on the farm.
3. To determine the conditions of optimality in the resource use and the production pattern on the farm.
4. To analyse the extent of sub optimality in the resource use on the farm, and
5. To suggest ways and means in getting the present use of resources to optimality on the farm.

Lecture No.5

Agricultural finance – Meaning – Definitions – micro vs macro finance –need for agricultural finance-Agricultural marketing – meaning, definition , importance of agricultural marketing

Agricultural finance

Agricultural finance generally means studying, examining and analyzing the financial aspects pertaining to farm business, which is the core sector of the country. The financial aspects include money matters relating to production of agricultural products and their disposal.

According to Murray (1953), “It is an economic study of borrowing funds by farmers; of the organization and operation of farm lending agencies, and of society’s interest in credit for agriculture.”

According to Tandon and Dhandyal (1962), “as a branch of agricultural economics, which deals with the provision, and management of bank services and financial resources related to individual farm units”

Micro Vs Macro finance

Agricultural finance is viewed both at macro level and micro level. Macro finance deals with the different sources of raising funds for agriculture as a whole in the economy and it is also concern with the lending procedures, rules, regulations, monitoring and

controlling procedures of different agricultural institutions. Thus, macro finance pertains to financial agriculture at the aggregate.

Micro finance deals with financing the individual farm business units and it is concern with the study as to how the individual farmer considers various sources of credit to be borrowed from each source and how he allocates the same among the alternative uses within the farm.

Need for agricultural finance

Given the requirement of finance in agricultural sector, very few farmers will have capital of their own to invest in agriculture. Therefore, a need arises to provide credit to all those farmers who require it. Even if we look into the expenditure pattern of the farm families, they have hardly any savings to fall back on. Therefore, credit enables the farmers to advantageously use seeds, fertilizers, irrigation, machinery, etc. Farmer has to invariably search for a source which supplies adequate farm credit. Above all, small and marginal farmers constitute majority of the farming community.

Agricultural Marketing

The term, agricultural marketing implies selling of goods and services by the farmers and ranchers. It includes various functions viz., assembling, transportation, storing, buying, selling, standardization, grading, processing, sales promotion, etc.

According to Thomsen, “agricultural marketing comprises all the operations, and the agencies conducting them involved in the movement of farm produced foods, raw materials and their derivatives, such as textiles, from the farms to the final consumer and effects of such operations on farmers, middlemen and consumers.”

Importance of agricultural marketing

Marketing gives signals to increase production and thereby ensures the availability of goods, and services. If the marketing activity is developed, demand for goods increases as a result, production of goods also increases. Due to increased production, the demand for inputs increases i.e., demand for input is derived from the increase in demand for the output. To distribute the required input to the farm sector, the input marketing has to be strengthened.

Lecture No.6

Basic terms and concepts in economics – Goods & Services – free and economic goods, Utility – Cardinal and Ordinal approaches. Characteristics of utility - Forms of utility.

BASIC TERMS AND CONCEPTS IN ECONOMICS

GOODS and SERVICES

Economics is concerned with the production and distribution of goods and services.

Goods: It is defined as anything that satisfies human wants or needs.

Characteristic features of goods:

1. They are tangible in nature
2. They are the material outcome of production

Example: Foodgrains, Machinery, Seeds, Fertilizers etc.,

Services would be the performance of any duties or work for another or professional activity. .

Characteristic Features of Services:

1. They are intangible
2. Non- Materialistic
3. Inseparable
4. Variable
5. Perishable

Example: Services rendered by agricultural labourers, doctors, teachers etc.,

Classification of Goods

The goods are classified based on supply, durability, consumption and transferability.

1) Based on Supply: The goods are categorized as economic goods and free goods based on the supply criteria

Free goods are those goods that exist in lenty that can be used as much as we like. They are gifts of nature and used without payment Example: Air, sunshine etc.

The economic goods, on the other hand, are scarce and can be had only on payment. They are limited and generally man- made and hence those can be available only on payment. In Economics, we are concerned with economic goods only. Economic goods mean wealth.

Thus there would have been no science of economics if all goods had been free goods. The distinction between free goods and economic goods, of course is not permanent, for instance air is a free good but when we receive it under fan it is an economic good.

2) Based on Consumption: The Goods are categorized as Consumer goods and Producer Goods.

Consumer goods are those which yield, satisfaction directly. They are used by consumer directly to satisfy the wants Example: food, clothing, etc. These goods are known as the Goods of First order.

Producer goods are these goods which help us to produce other goods. They give satisfaction indirectly by producing other goods which will yield final satisfaction. Example: machinery, tools etc. They are also termed goods of the second order.

.3) Based on Durability: This classification emphasized on the nature of the goods and their usage.

Mono Period Goods are those goods which can be used only once in the production and consumption process. Example: Seeds, Fertilizers, food etc.,

Poly Period Goods are those which can be used repeatedly during the production and consumption process over several periods. Example: refrigerator machinery, implements etc.,

4) Based on Transferability:

External Material Transferable good. Example: Land, Buildings etc.,

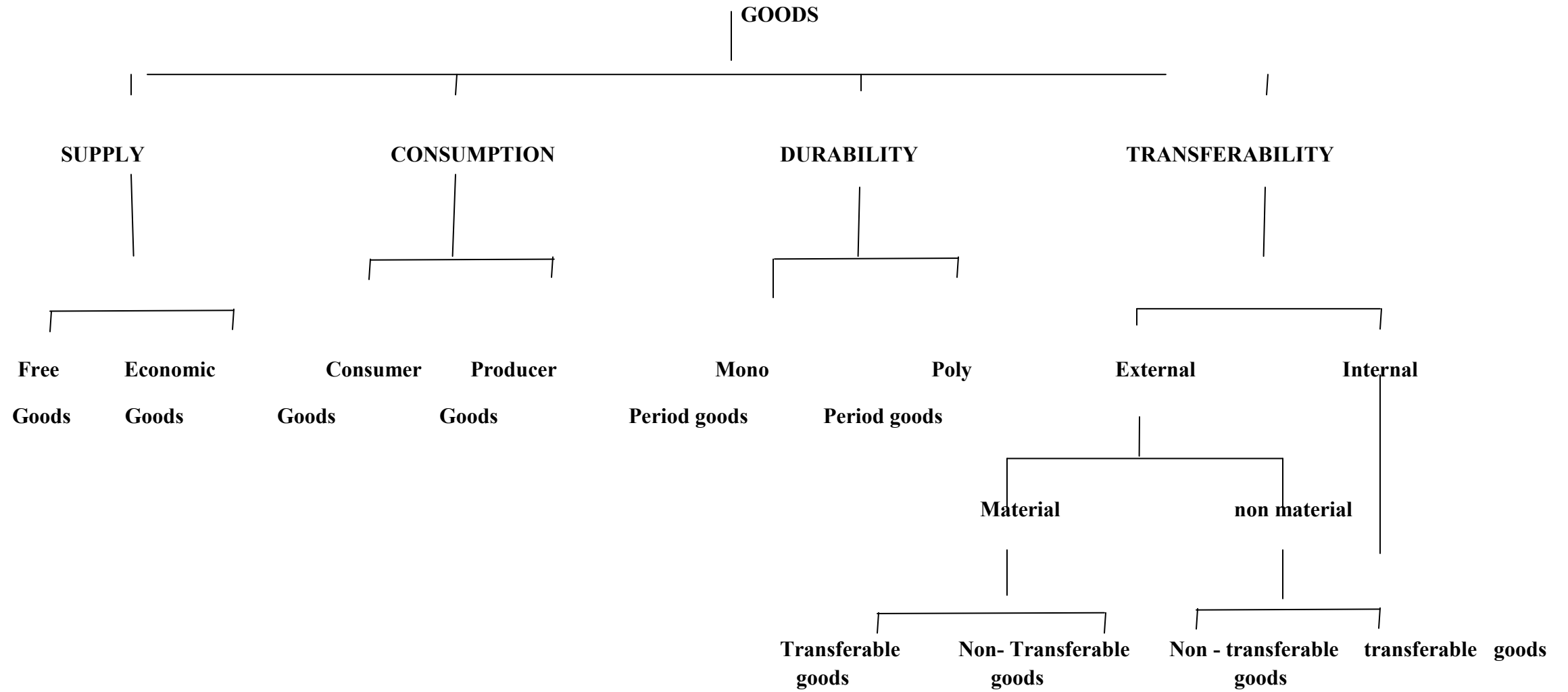
External material non-Transferable good. Example: Degree Certificate, PAN Card etc.,

External non material transferable good. Example: Goodwill of a business

External non material Non-transferable good. Example: Friendship, light

Internal non material Non-Transferable good. Example: Intelligence Quotient ,ability ,cruelty etc.,

CLASSIFICATION OF GOODS



UTILITY

The basis of consumer behaviour is that people tend to choose those goods and services they value high. Based on this premise economists developed the notion of utility to describe the consumption patterns adopted by the consumers.

Definition: Utility means the power to satisfy a human want. Any commodity or service which can satisfy a human want is said to have utility

Characteristics of Utility :

1. Utility is subjective: Utility varies from person to person, for Eg:- A high yielding variety seed gives more utility to the farmer. The same seed provided to a cloth merchant gives zero utility.
2. Utility varies with purpose : For Eg:- Coconut oil is used as cooking oil or hair oil or as lubricant.
3. Utility varies with time : The Intensity of a person's desire for a commodity is different at various time periods, for Eg:- Labour requirement for paddy is peak during transplantation harvesting and threshing period than other operations taken up in paddy cultivation.
4. Utility varies with ownership : Ownership of a good creates greater utility from a good than when it is hired Eg:- owning a tractor gives more utility than hiring it.
5. Utility need not be synonymous with pleasure: For Eg:- A sick man has to consume medicines for getting cured. He does not get pleasure during the process.
6. Utility does not mean satisfaction: utility is distinct from satisfaction. It implies potentiality of satisfaction in a given commodity. But the satisfaction is the end result of consumption. Satisfaction is what we get and the utility is the quality in a good which gives satisfaction.

KINDS OR TYPES OF UTILITY

The kinds or types of utilities are 1) Form utility 2) Place utility 3) Time utility and 4) Possession utility.

1. Form Utility : The Change in the form offers greater utility to the good than in its original form. For example: Processing of paddy into rice. Rice, fetches superior price than paddy because of processing.
2. Place Utility : The utility obtained by spatial movement of the goods is termed as place utility. Transportation aids in place utility i.e., through the transfer of goods from surplus production area to deficit or slack areas. Example: Shimla apples are transported to all parts of the country thereby increasing the utility of apples.

3. Time utility: Storing the commodity at the times of surplus production and make them available during scarcity creates time utility. Storage aids in creation of time utility by the supply of seasonal products during off season as per the consumers requirements.

4. Possession Utility: The Utility obtained due to possession or transfer of ownership of the commodity is called possession utility. Buying and selling creates possession utility. For Eg:- Agriculture land sold to real estate for plots would increase the utility for the same piece of land.

Cardinal and Ordinal Utility

Cardinal utility : This is based on the premise that utility could be measured and can be aggregated across individuals. It *quantitatively* measures the preference of an individual towards a certain commodity. Numbers assigned to different goods or services can be compared. A utility of 100 units towards a cup of coffee is twice as desirable as a cup of tea with a utility level of 50 units. The only limitation is its subjectivity.

Ordinal utility: this is the ordinal measurement of utility. According to this utility can not be quantified. For Example: If the utility is 100 units towards a cup of coffee and 50 units for a cup of tea, the conclusion drawn is that Coffee is preferred over tea. The ordering is important rather than the magnitude of the numerical values like 100 and 50 in the given instance. This approach faces the limitation of utilities not being compared.

Lecture No.7

Value – Definition – Characteristics; Price – Meaning, Wealth – Meaning Attributes of wealth, Types of wealth, Distinction between wealth and welfare.

Value and wealth

Value

The word “Value” in economics conveys value-in-exchange. It does not include free goods which have only value-in-use. In other words, value of a commodity refers to those goods that can be obtained in exchange for itself or purchasing power of a commodity in terms of other commodities and services. Value can be referred to as the capacity of a good to command other things in exchange.

Characteristics of Value.

1. It must possess utility
2. It must be scarce and
3. It must be transferable and marketable.

Price

In Pre historic times, people did not know money and they had a barter system in which goods are exchanged with goods. Therefore, in those days value and price were used synonymously. But now days, goods are exchanged for money. Therefore, Value expressed in monetary terms is Price

Wealth

In ordinary language, “Wealth” conveys an idea of prosperity and abundance. A man of wealth understood as a rich person. But in Economics Wealth is synonymous with economic goods. In short, Wealth means anything which has value.

Definition: It consists of all potentially exchangeable means of satisfying human wants (J.M.Keynes)

Characteristics of wealth :

1. It should possess utility
2. It must be scarce
3. It must be transferable
4. It must be external to person

Relation between Money and Wealth : Money is a form of wealth .All money is wealth but all wealth is not money

Relation between Income and Wealth : Income is different from wealth. Wealth yields income. Therefore, Wealth is a fund whereas income is a flow

Types of Wealth :

1. Individual Wealth : It consists of all tangible and intangible possessions of the individuals besides loans due to them. Example: Land, bonds, deposits are tangible possessions while, intangible possessions are copyrights, patents etc.,
2. Social Wealth : It is the wealth, which is collectively used by all the people in a nation. Example: Railways, Public Parks, Government colleges etc.,
3. Representative Wealth : It is that form of wealth in the form of title deeds
4. National Wealth : It is an aggregate of all individuals wealth and social wealth of the country inclusive of loans due to people and to the nation debts have to be deducted. Example: Rivers, mountains.
5. Cosmopolitan Wealth: It is wealth of the whole world. It is a sum total wealth of all nationals.
6. Negative Wealth : It refers to the exclusive debts owed by the individuals and the nation.

Wealth and Welfare compared

Wealth	Welfare
It is the means to an end	It is the end itself
It is objective	It is subjective
It includes harmful goods	It does not include harmful goods
It does not include free goods	Free and economic goods lead to welfare

Lecture No.8**Law of Diminishing Marginal Utility – statement, assumptions of law, explanation, limitations of the law, Importance.**LAW OF DIMINISHING MARGINAL UTILITY (LDMU)

The law of diminishing marginal utility is a generalization drawn from the characteristics of human wants, H.H Gossen was the first to formulate this law in 1854.

Marshall has stated the law of diminishing marginal utility as follows “The additional benefit which a person derives from a given increase of his stock of a thing diminishes with every increase in the stock that he already has”. In other words, the law simply states that other things being equal, the marginal utility derived from successive units of a given commodity goes on decreasing. Hence the more we have of a thing; the less we want of it, because every successive unit gives less and less satisfaction.

Marginal Utility: The addition to the total utility by the consumption of the last unit considered just worthwhile.

Total utility : The sum total of utilities obtained by the consumer from consumption of different units of a commodity

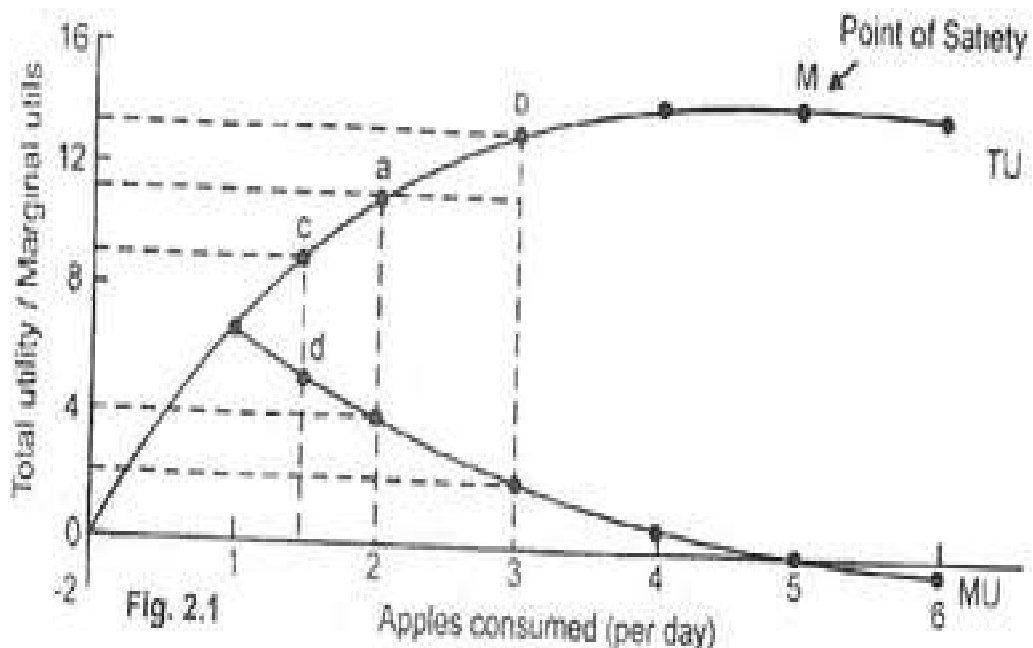
ASSUMPTIONS :

1. There should be a single commodity with homogeneous units wanted by an individual consumer
2. There should not be any change in the taste, habit, custom, fashion and income of the consumer
3. There should be continuity in the consumption of the commodity
4. Units of the commodity should be of a suitable size
5. Prices of the different units of the commodity and of the substitutes of the commodity should remain the same
6. The commodity should be divisible
7. The consumer should be an economic man who acts rationally
8. Goods should be normal goods.

Schedule showing marginal utility and total utility

Units of apples consumed	Total utility in utils	Marginal utility in utils
1	7	7
2	11	4 (11 - 7)
3	13	2 (13 - 11)
4	14	1 (14 - 13)
5	14	0 (14 - 14)
6	13	-1 (13 - 14)

The above table shows that when a person consumes no apples, he gets no satisfaction. His total utility is zero. In case he consumes one apple, he gains seven units of satisfaction. His total utility is 7 and his marginal utility is also 7. In case he consumes second apple, he gains extra 4 utils (MU). Thus given him a total utility of 11 utils from two apples. His marginal utility has gone down from 7 utils to 4 utils because he has a less craving for the second apple. Same is the case with the consumption of third apple. The marginal utility has now fallen to 2 utils while the total utility of three apples has increased to 13 utils (7 + 4 + 2). In case the consumer takes fifth apple, his marginal utility falls to zero utils and if he consumes sixth apple also, the total utility starts declining and marginal utility becomes negative. Total utility and marginal utility from the successive units of the commodity are plotted in the figure below:



- i. The total utility curves starts at the origin as zero consumption of apples yield zero utility.
- ii. The TU curve reaches at its maximum or a peak at M when MU is zero.

- iii. The MU curve falls throughout the graph. A special point occurs when the consumer consumes fifth apple. He gains no marginal utility from it. After this point, marginal utility becomes negative.

$$MU_a = TU_a - TU_{(a-1)}$$

Importance of the Law:

1. The law of diminishing marginal utility is the basic law of consumption. The law of demand, the law of equimarginal utility and the concept of consumers surplus are based on it.
2. The law helps in bringing variety in consumption and production.
3. The law helps to explain the phenomenon in the value theory that the price of a commodity falls when its supply increases. It is because with the increase in the stock of a commodity its marginal utility diminishes.
4. The famous diamond –water paradox of Smith can be explained with the help of this law. Diamonds are scarce and hence possess high marginal utility and hence higher price. On the otherhand, water is relatively abundant because of which it possess low marginal utility and low price even though its total utility is high
5. The principle of progressive taxation is based on this law. As a person 's income increases, the rate of tax rises because the marginal utility of money to him falls with the rise in his income. The law underlines the socialist plea for an equitable distribution of wealth.

Exceptions to LDMU are as follows:

1. Hobbies: In case of certain hobbies like stamp collection or old coins, every additional unit gives more pleasure. MU goes on increasing with the acquisition of every unit.
2. Drunkards: It is believed that every dose of liquor Increases the utility of a drunkard.
3. Miser: In the case of miser, greed increases with the acquisition of every additional unit of money.
4. Reading: The habit of reading of more books gives more knowledge and in turn greater satisfactions.

Lecture No.9**Law of Equi-marginal Utility – Meaning, Assumptions, Explanation of the Law, Practical Importance, Limitations.**LAW OF EQUI MARGINAL UTILITY

The principle of equal marginal utility occupies an important place in the cardinal utility analysis. According to this, a consumer is in equilibrium when he distributes his given money income among various goods in such a way that marginal utility derived from the last rupee spent on each good is the same. The Marshallian approach to consumer's equilibrium is based on the following assumptions.

Assumptions

The main assumptions of the law of equi-marginal utility are as under:

- (1) Independent utilities. The marginal utilities of different commodities are independent of each other and diminishes with more and more purchases.
- (2) Constant marginal utility of money. The marginal utility of money remains constant to the consumer as he spends more and more of it on the purchases of goods.
- (3) Utility is cardinally measurable.
- (4) Every consumer is rational in the purchase of goods.
- (5) Limited money income. A consumer has limited amount of money income to spend.

Definition and explanation of the law:

The law of equi-marginal utility is simply an extension of the law of diminishing marginal utility to two or more than two commodities. The law of equi-marginal, is known, by various names. It is named as the Law of Substitution, the Law of Maximum Satisfaction, the Law of Indifference, the Proportionate Rule and the Gossen's Second Law. In cardinal utility analysis, this law is stated by Lipsey in the following words. "The household maximizing the utility will so allocate the expenditure between commodities that the utility of the last penny spent on each item is equal". As we know, every consumer has unlimited wants. However, the income at his disposal at any time is limited. The consumer is therefore, faced with a choice among many commodities that he can and would like to pay. He therefore, consciously or unconsciously compares the satisfaction which he obtains from the purchase of the commodity and the price which he pays for it. If he thinks the utility of the commodity is greater than the utility of money, he buys that commodity. As he buys more and more of that commodity, the utility of the successive units begins to diminish. He stops further purchase of the commodity at a point where the marginal utility of the commodity and its price are just equal. If he

pushes the purchase further from his point of equilibrium, then the marginal utility of the commodity will be less than that of price and the household will be a loser. A consumer will be in equilibrium with a single commodity symbolically when: $MU^x = P^x$

Consumer's equilibrium with two or more than two goods purchased. A prudent consumer in order to get the maximum satisfaction from his limited means compares not only the utility of a particular commodity and the price but also the utility of the other commodities which he can buy with his scarce resources. If he finds that a particular expenditure in one use is yielding less utility than that of other, he will try to transfer a unit of expenditure from the commodity yielding less marginal utility to commodity yielding higher marginal utility. The consumer will reach his equilibrium position when it will not be possible for him to increase the total utility by transferring expenditure from less advantageous uses to more advantageous uses.

The consumer will maximize total utility from his given income when the utility from the last rupee spent on each good is the same. Algebraically, this is

when; $\frac{MU_a}{P_a} = \frac{MU_b}{P_b} = \frac{MU_c}{P_c} = \dots = \frac{MU_n}{P_n}$ Here (a), (b), (c), ... n are large number goods consumed.

It may here be noted that when a consumer is in equilibrium there is no way to increase utility by reallocating his given money income.

The doctrine of equi-marginal utility can be explained by taking an example. Suppose a person has Rs.5 with him which he wishes to spend on two commodities, Pencil and Erasers. The marginal utility derived from both these commodities is as under:

Units of Money	MU of Pencils	MU of Erasers
1	10	12
2	8	10
3	6	8
4	4	6
5	2	3
Rs.5	Total Utility = 30	Total Utility = 39

A rational consumer would like to get maximum satisfaction from Rs. 5.00. He can spend this money in three ways.

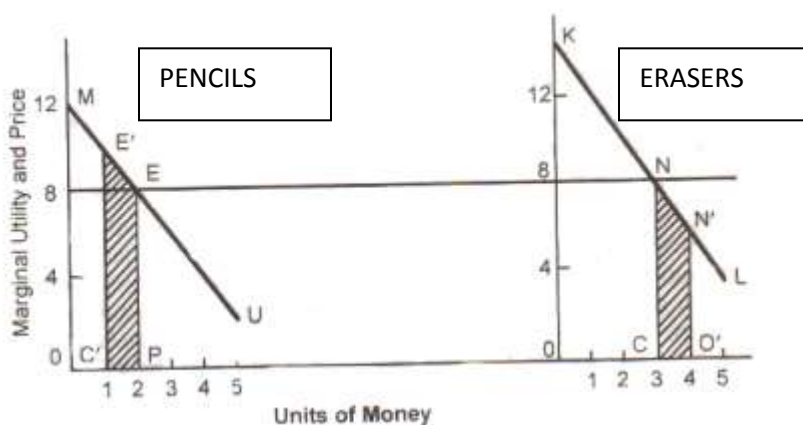
- (1) Rs. 5.00 may be spent on Pencils only
- (2) Rs. 5.00 may be utilized for the purchase of Erasers only.
- (3) Some rupees may be spent on the purchase of Pencils and some on the purchase of Erasers.

If the prudent consumer spends Rs. 5.00 on the purchase of Pencils, he gets 30 utility. If he spends Rs. 5.00 on the purchase of Erasers, the total utility derived is 39 which is higher than Pencils. In order to make the best of the limited resources, he adjusts his expenditure.

- (1) By spending Rs. 4.00 on Pencils and Rs. 1.00 on Erasers, he gets 40 utility ($10+8+6+4+12=40$).
- (2) By spending Rs. 3.00 on Pencils and Rs. 2.00 on Erasers, he derives 46 Utility ($10+8+6+12+10=46$).
- (3) By spending Rs. 2.00 on Pencils and RPs. 3.00 on Erasers, he gets 48 utility ($10+8+12+10+8=48$).
- (4) By spending Rs. 1.00 on Pencils and Rs. 4.00 on Erasers, he gets 46 utility ($10+12+10+8+6=46$).

The sensible consumer will spend Rs. 2.00 on Pencils and Rs. 3.00 on Erasers and will get the maximum satisfaction. When he spends Rs. 2.00 on Pencils and Rs. 3.00 on Erasers, the marginal utility derived from both these commodities is equal to 8. When the marginal utilities of the two commodities are equalized, the total utility is then maximum i.e., 48 as is clear from the schedule given above.

The law of equi-marginal utility can be explained with the help the diagrams.



In the diagram, MU is the marginal utility curve for Pencils and KL of Erasers. When a consumer spends OP amount (Rs.2) on Pencils and OC (Rs.3) on Erasers, the marginal utility derived from the consumption of both the items (Pencils and Erasers) is equal to 8

units ($EP=NC$). The consumer gets the maximum utility when he spends Rs. 2.00 on Pencils and Rs. 3.00 on Erasers and by no other alteration in the expenditure.

We now assume that the consumer spends Rs. 1.00 on Pencils (OC' amount) and Rs. 4.00 (OQ') on erasers. If CQ' more amount is spent on erasers, the added utility is equal to the area $CQ'N'N$. On the other hand, the expenditure on Pencils falls from OP amount (Rs.2) to OC' amount (Rs. 1.00). There is a loss of utility equal to the area $C'PEE'$. The loss in utility (Pencils) is greater than that of its gain in erasers. The consumer is not deriving maximum satisfaction except the combination of expenditure of Rs. 2.00 on Pencils and Rs. 3.00 on erasers.

This law is known as the Law of Maximum Satisfaction because a consumer tries to get the maximum satisfaction from his limited resources by so planning his expenditure that the marginal utility of a rupee spent in one use is the same as the marginal utility of a rupee spent on another use. It is known as the Law of Substitution because consumer continues substituting one good for another till he gets the maximum satisfaction. It is called the Law of Indifference because the maximum satisfaction has been achieved by equating the marginal utility in all the uses. The consumer then becomes indifferent to read just his expenditure unless some change takes place in his income or the prices of the commodities, etc.

Limitations of the Law

- (i) Effect of fashions and customs. The law of equi-marginal utility may become inoperative if people forced by fashions and customs spend money on the purchase of those commodities which they clearly know yield less utility but they cannot transfer the unit of money from the less advantageous uses to the more advantageous uses because they are forced by the customs of the country.
- (ii) Ignorance or Carelessness. Sometimes people due to their ignorance of price or carelessness to weigh the utility of the purchased commodity do not obtain the maximum advantage by equating the marginal utility in all the uses.
- (iii) Indivisible Units. If the unit of expenditure is not divisible, then again the law may become inoperative.
- (iv) Freedom to Choose. If there is no perfect freedom between various alternatives, the operation of law may be impeded;

Practical Importance of Law of LEMU:

1. Consumption: A wise consumer acts on this law while arranging his expenditure and obtains maximum satisfaction.
2. Production: To obtain maximum net profit, he must substitute one factor of producing to another so as to have most economical combination.

3. Exchange: Exchange implies substitution of one thing to another and hence this law is important.
4. Distribution: It is on the principle of the marginal productivity that the share of each factor of production is determined.
5. Public finance: The Government is also guided by this law in public expenditure by allocation of revenue (money) in such a way that it will secure maximum welfare of the people.

Lecture No.10

Consumer's Surplus – Meaning, Assumptions, Explanation, Difficulties in measuring Consumer's Surplus, Importance.

CONSUMER'S SURPLUS

Importance:

The concept of consumers surplus is based on the theory of demand. It was introduced by marshal in 1895 in his publication 'principles of economics.'

According to marshal consumer's surplus is "the excess of the price which he would be willing to pay rather than go without the thing, over that which he actually does pay, is the economic measure of this surplus satisfaction". In brief, consumers surplus is the difference between what the consumer is willing to pay and what he actually pays.

Assumptions:

1. Marginal utility of money for the consumer is assumed to be the same through out the process of exchange.
2. Commodity does not have substitutes
3. In the market at the given point of time, there are no differences of income, tastes, preferences and fashions among the consumers and
4. Each commodity is considered independent of others.

Explanation:

To illustrate let us suppose that a consumer is willing to buy jamun if it price were Rs.1/-, 2 jamun if the price were 75 paise. 3 jamun at 50 paise and 4 at 25 paise. Suppose the market price is 25 paise per jamun. At this price the consumer will buy 4 jamun and enjoy a surplus of Rs.1.50 (0.75 +0. 50 + 0.25). This is shown in table.

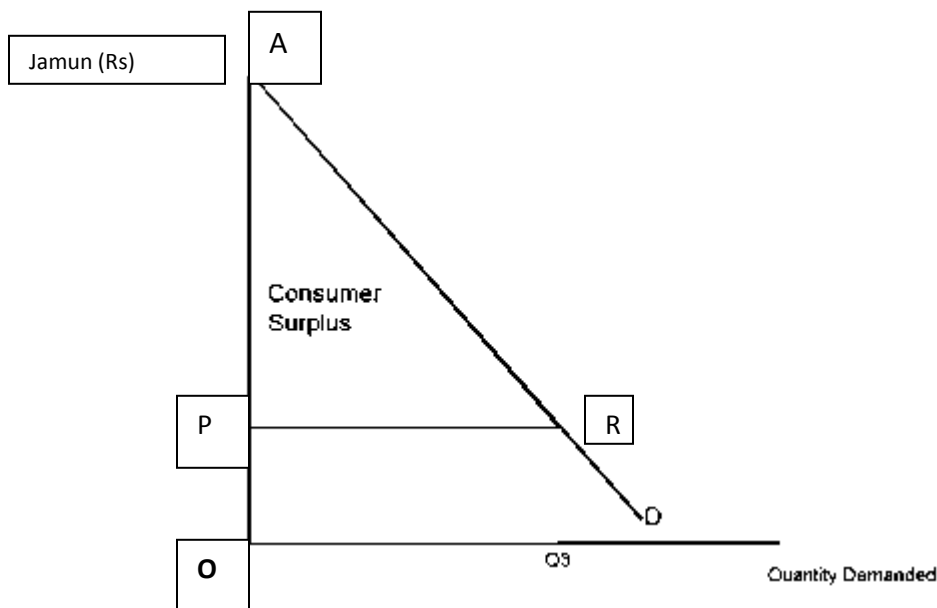
Units of Jamun	Marginal Utility (Price willing to pay)	Actual Price	Consumer Surplus
1	1.00	0.25	0.75
2.	0.75	0.25	0.50
3.	0.50	0.25	0.25
4.	0.25	0.25	--

Our hypothetical consumer is prepared to pay Rs.2.50/-(Rs.1.00 + 0.75 + 0.50 + 0.25) for four jamuns but actually pays Rs.1/- and therefore derives a surplus of Rs.1.50/- (Rs.2.50/- - Rs.1.00/-). It can also be expressed as

$$CS = \text{Total utility} - \text{Marginal Utility}$$

$$CS = TU - (\text{Price} \times \text{NO. Of units of the commodity})$$

Consumer's surplus is represented diagrammatically



Price per units is OQ. At this price, the consumer will demand OQ quantity of commodity, he will get total satisfaction equal to the area OQRA, and thus gets a surplus satisfaction equal to PRA (OQRA – OQRP). Thus surplus satisfaction has been defined as consumer's surplus.

Difficulties in measuring Consumer's Surplus:

1. The cardinal measurement of utility is difficult because it is close to impossible for a consumer to say that the first unit of commodity gave him 10 units of satisfaction and the second unit of commodity gave him 5 units of satisfaction.
2. Marginal utility for the same commodity is different to different consumers. Marginal utility for a particular commodity varies from person to person depending upon their income, tastes and preferences.
3. Existences of substitutes: In the real world a number of substitutes for a commodity exist, thus making the work of measuring consumer's surplus a complicated task.
4. Marginal utility of money is not constant: Marshall based his concept of consumer's surplus on the simplifying assumption that the marginal utility of money is constant. As the consumer buys more and more units of a commodity x, the amount of money with him diminished, in this case, the marginal utility of money is bound to increase rather than remain constant.
5. Lack of awareness of different price: It is not possible for a consumer to be aware of the entire demand schedule.

Importance of Consumers Surplus

1. Conjunctural Importance : When the people enjoy larger consumer's surplus, it does not indicate that they are better off. Thus it serves as an index of economic betterment.
2. Useful to the Monopolist : The monopolist can freely raise the price of the goods if they bring in higher consumer's surplus, without any fear of foregoing the sales.
3. Helps in Public Finance and Taxation : More taxes can be imposed by the government to get more revenue, on those goods for which consumer's surplus is high
4. Helps to measure benefits from International Trade: International trade implies transaction of commodities across the frontiers. Generally, those commodities which happen to be cheaper in the foreign markets are imported thereby resulting in higher consumer's surplus of satisfaction for the commodity.

Lecture No.11&12

Demand – Meaning, Definition, Types of demand - income demand, price demand, cross demand- Demand Schedule, demand curve, Law of demand – contraction and extension, increase and decrease in demand

DEMAND

Meaning of Demand

Demand in economics means a desire to possess a good supported by willingness and ability to pay for it. If you have a desire to buy a certain commodity, say, a tractor, but do not have the adequate means to pay for it, it will simply be a wish, a desire or a want and not demand. Demand is an effective desire, i.e., a desire which is backed by willingness and ability to pay for a commodity in order to obtain it. In the words, "Demand means the various quantities of a good that would be purchased per unit of time at different prices in a given market. There are thus three main characteristics of demand in economics.

- i. Willingness and ability to pay. Demand is the amount of a commodity for which a consumer has the willingness and also the ability to buy.
- ii. Demand is always at a price. If we talk of demand without reference to price, it will be meaningless. The consumer must know both the price and the commodity. He will then be able to tell the quantity demanded by him.
- iii. Demand is always per unit of time. The time may be a day, a week, a month, or a year.

Individual's Demand for a commodity:

The individual's demand for a commodity is the amount of a commodity which the consumer is willing to purchase at any given price over a specified period of time. The individual's demand for a commodity varies inversely with price *ceteris paribus*. As the price of a good rises, other things remaining the same, the quantity demanded decreases and as the price falls, the quantity demanded increases. Price (p) is here an independent variable and quantity (q) dependent variable.

The Market Demand for a Commodity:

The market demand for a commodity is obtained by adding up the total quantity demanded at various prices by all the individuals over a specified period of time in the market. It is described as the horizontal summation of the individuals' demand for a commodity at various possible prices in market.

In a market, there are a number of buyers for a commodity at each price. In order to avoid a lengthy addition process, we assume here that there are only four buyers for a commodity who purchase different amounts of the commodity at each price. The

horizontal summation of individuals' demand for a commodity will be the market demand for a commodity as is illustrated in the following schedule:

Demand Schedule

Demand schedule is a tabular representation of the quantity demanded of a commodity at various prices. For instance, there are four buyers of apples in the market, namely A, B, C and D.

Demand schedule for apples

PRICE (Rs. per dozen)	Buyer A (demand in dozen)	Buyer B (demand in dozen)	Buyer C (demand in dozen)	Buyer D (demand in dozen)	Market Demand (dozens)
10	1	0	3	0	4
9	3	1	6	4	14
8	7	2	9	7	25
7	11	4	12	10	37
6	13	6	14	12	45

The demand by buyers A, B, C and D are individual demands. Total demand by the four buyers is market demand. Therefore, the total market demand is derived by summing up the quantity demanded of a commodity by all buyers at each price.

Demand Curve

Demand curve is a diagrammatic representation of demand schedule. It is a graphical representation of price- quantity relationship. Individual demand curve shows the highest price which an individual is willing to pay for different quantities of the commodity. While, each point on the market demand curve depicts the maximum quantity of the commodity which all consumers taken together would be willing to buy at each level of price, under given demand conditions.

1) Derived demand.

Derived demand refers to demand for goods which are needed for further production. It is the demand for producer's goods like industrial raw material, machine tools and equipments.

2) Autonomous demand

Autonomous demand is independent of the other product or main product. It's not linked or tie-up with the other goods or commodity.eg: food articles,clothes.

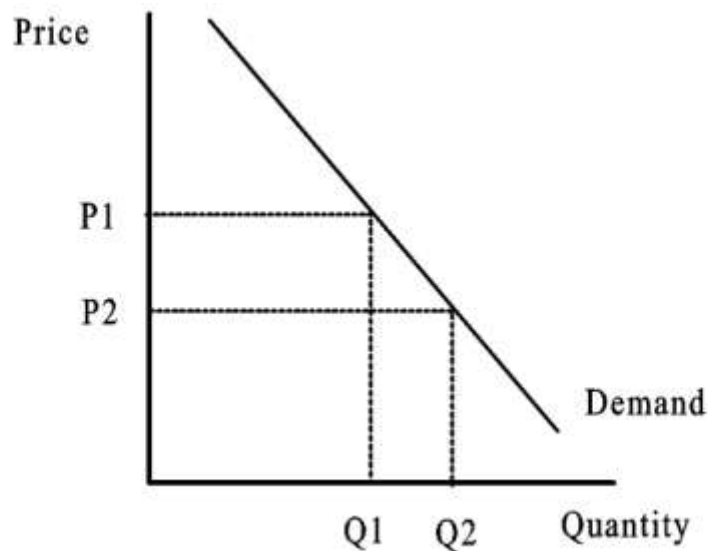
Price Demand: It refers to various quantities of a good or service that a consumer would be willing to purchase at all possible prices in a given market at a given point in time, *ceteris paribus*.

Income Demand: It refers to various quantities of a good or service that a consumer would be willing to purchase at different levels of income, *ceteris paribus*.

Cross Demand : It refers to various quantities of a good or service that a consumer would be willing to purchase not due to changes in the price of the commodity under consideration but due to changes in the price of related commodity. For example: Demand for tea is more not because price of tea has fallen but because price of coffee has risen. Thus demand for substitutes take the form of cross demand.

Law of Demand

1. The law of demand states that as price increases (decreases) consumers will purchase less (more) of the specific commodity. Demand varies inversely with price.



As price falls from P1 to P2 the quantity demanded increases from Q1 to Q2. This is a negative relation between price and quantity, hence the negative slope of the demand schedule; as predicted by the law of demand.

Demand curve has a negative slope, i.e, it slopes downwards from left to right depicting that with increase in price, quantity demanded falls and vice versa. The reasons for a downward sloping demand curve can be explained as follows-

1. **Income effect-** With the fall in price of a commodity, the purchasing power of consumer increases. Thus, he can buy same quantity of commodity with less money or he can purchase greater quantities of same commodity with same money. Similarly, if the price of a commodity rises, it is equivalent to decrease in income of the consumer as now he has to spend more for buying the same quantity as before. This change in purchasing power due to price change is known as income effect.

2. Substitution effect- When price of a commodity falls, it becomes relatively cheaper compared to other commodities whose prices have not changed. Thus, the consumer tend to consume more of the commodity whose price has fallen ,i.e, they tend to substitute that commodity for other commodities which have now become relatively dear.

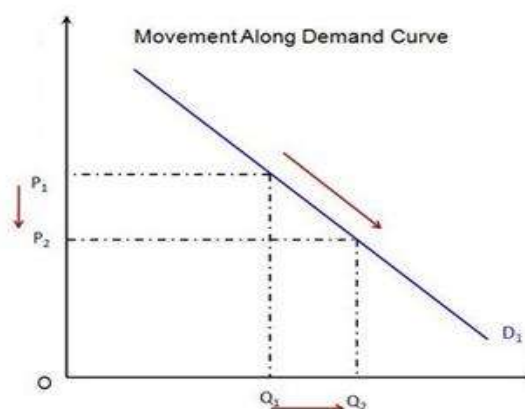
3. Law of diminishing marginal utility– It is the basic cause of the law of demand. The law of diminishing marginal utility states that as an individual consumes more and more units of a commodity, the utility derived from it goes on decreasing. So as to get maximum satisfaction, an individual purchases in such a manner that the marginal utility of the commodity is equal to the price of the commodity. When the price of commodity falls, a rational consumer purchases more so as to equate the marginal utility and the price level. Thus, if a consumer wants to purchase larger quantities, then the price must be lowered. This is what the law of demand also states.

Changes in demand for a commodity can be shown through the demand curve in two ways: (1) Movement along the demand curve(Extension and contraction) and (2) Shifts of the demand curve(Increase and decrease).

(1) Movement along the Demand Curve:

Demand is a multivariable function. If income and other determinants of demand such as tastes of the consumers, changes in prices of related goods, income distribution etc remain constant and there is a change only in price of the commodity, then we move along the same demand curve, In this case, the demand curve remains unchanged. When, as a result of change in price, the quantity demanded increases or decreases, it is technically called extension and contraction in demand.

A movement along a demand curve is defined as a change in the quantity demanded due to changes in the price of a good will result in a movement along the demand curve. For instance, a fall in the price of apples from P_1 to P_2 causes an increase in the quantity demanded from Q_1 to Q_2



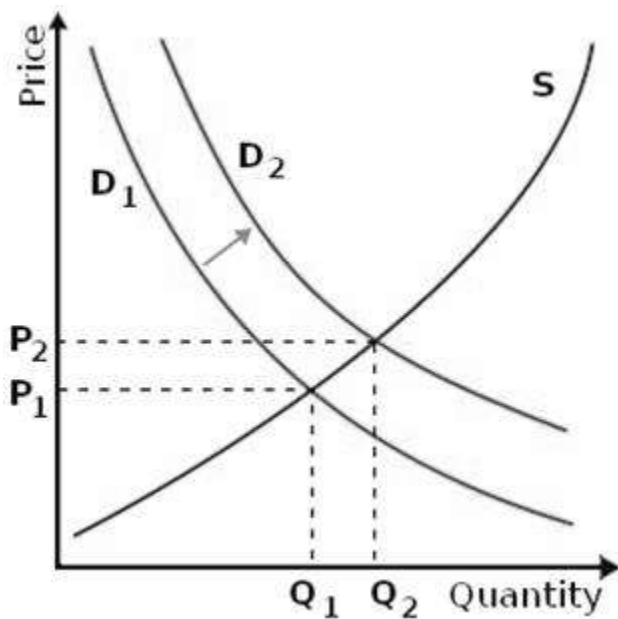
Shifts in the demand curve

A shift of the demand curve is referred to as a change in demand due any factor other than price. A demand curve will shift if any of these occurs:

1. Change in the price of other goods (complements and substitutes); leading to increase / decrease of real income

2. Change in the income level
3. Change in consumers' tastes and preferences

Each of these factors tends the demand curve to shift downwards to the left or upwards to the right. While downward shift signifies decrease in demand, an upward shift of the demand curve shows an increase in the demand. As shown in the figure the demand curve will shift to D2 from D1 and accordingly the price and quantity demanded will change.



Movements along a demand curve is the result of increase or decrease of the price of the good, while the demand curve shifts when any demand determinant other than price changes

Determinants of demand

Various factors affect the quantity demanded by a consumer of a good or service. The key determinants of demand are as follows

1. Price of the good: This is the most important determinant of demand. The relationship between price of the good and quantity demanded is generally inverse as we will see later while studying law of demand
2. Price of related goods:
 - Substitutes: If the price of a substitute goes down than the quantity demanded of the good also goes down and vice versa.
 - Complementary goods: If the price of gasoline goes up the quantity demanded of automobiles will go down. Thus the price of complements have an inverse relationship with the demand of a good
3. Income: Higher the income of the consumer the more will be quantity demanded of the good. The only exception to this will be inferior goods whose demand decreases with an increase in income level

4. Individual tastes and preferences: a preference for a particular good may affect the consumer's choice and he / she may continue to demand the same even in rising prices scenario
5. Expectations about future prices & income: If the consumer expects prices to rise in future he / she may continue to demand higher quantities even in a rising price scenario and vice versa

Exceptions to the law of demand

Unlike other laws, law of demand also has few exceptions i.e. there is no inverse relationship between price and quantity demanded for these goods. Few of them are as follows:

1. Giffen goods: These are those inferior goods whose quantity demanded decreases with decrease in price of the good. This can be explained using the concept of income effect and substitution effect
2. Commodities which are regarded as status symbols: Expensive commodities like jewellery, AC cars, etc., are used to define status and to display one's wealth. These goods doesn't follow the law of demand and quantity demanded increases with price rise as more expensive these goods become, more will be their worth as a status symbol.
3. Expectation of change in the price of the goods in future: if a consumer expects the price of a good to increase in future, it may start accumulating greater amount of the goods for future consumption even at the presently increased price. The same holds true vice versa

Lecture No.13&14

Elasticity of demand – Meaning, elastic and inelastic demand, kinds of elasticity of demand, perfectly elastic, perfectly inelastic, relatively elastic, relatively inelastic, unitary elastic demand-types of elasticity of demand-price elasticity of demand-income elasticity-cross elasticity of demand-factors affecting elasticity of demand-practical importance of elasticity of demand

Elasticity of Demand:

The elasticity of demand measures the responsiveness of quantity demanded to a change in any one of the above factors by keeping other factors constant. When the relative responsiveness or sensitiveness of the quantity demanded is measured to changes in its price, the elasticity is said to be price elasticity of demand.

Types of Elasticity of Demand

The quantity of a commodity demanded per unit of time depends upon various factors such as the price of a commodity, the money income of the consumer and prices of related goods, the tastes of the people, etc. Whenever there is a change in any of the variables stated above, it brings about a change in the quantity of the commodity purchased over a specified period of time. The three main types of elasticity are now discussed in brief.

(1) Price Elasticity of Demand:

The concept of price elasticity of demand is commonly used in economic literature. Price elasticity of demand is the degree of responsiveness of quantity demanded of a good to a change in its price. Precisely, it is defined as the ratio of proportionate change in the quantity demanded of a good caused by a given proportionate change in price. The formula for measuring price elasticity of demand is:

$$\text{Price Elasticity} = \frac{\text{Percentage change in quantity demanded}}{\text{Percentage change in price}}$$

$$= \Delta q / q \div \Delta P / P$$

Example. Let us suppose that price of a good falls from Rs.10 per unit to Rs.9 per unit in a day. The decline in price causes the quantity of the good demanded to increase from 125 units to 150 units per day, The price elasticity using the simplified formula will be:

$$E_p = \Delta q / \Delta P \times P / q$$

$$\Delta q = 150 - 125 = 25$$

$$\Delta P = 10 - 9 = 1$$

$$\text{Original quantity} = 125$$

$$\text{Original price} = 10$$

$E_p = 25 / 1 \times 10 / 125 = 2$. The elasticity coefficient is greater than one.

Therefore the demand for the good is elastic.

(2) Income Elasticity of Demand:

Income is an important variable affecting the demand for a good. When there is a change in the level of income of a consumer, there is a change in the quantity demanded of a good, other factors remaining the same. The degree of change or responsiveness of quantity demanded of a good to a change in the income of a consumer is called income elasticity of demand. Income elasticity of demand can be defined as the ratio of percentage change in the quantity of a good purchased, per unit of time to a percentage change in the income of a consumer.

$$E_y = \frac{\text{Percentage change in demand}}{\text{Percentage change in income}}$$

$$E_y = \Delta q / \Delta y \times y / q$$

Let us assume that the income of a person is Rs.4000 per month and he purchases six CDs per month. Let us assume that the monthly income of the consumer increases to Rs.6000 and the quantity demanded of CD's per month rises to eight .The elasticity of demand for CDs will be calculated as under:

$$\Delta q = 8 - 6 = 2$$

$$\Delta y = 6000 - 4000 = 2000$$

Original quantity demanded = 6 Original income 4000

$$E_y = \Delta q / \Delta y \times y / q = 2 / 200 \times 4000 / 6 = 0.66$$

The income elasticity is 0.66 which is less than one.

(3) Cross Elasticity of Demand:

The concept of cross elasticity of demand is used for measuring the responsiveness of quantity demanded of a good to changes in the price of related goods. Cross elasticity of demand is defined as the percentage change in the demand of one good as a result of the percentage change in the price of another good.. The formula for measuring cross elasticity of demand is:

$$E_{xy} = \frac{\% \text{ change quantity demanded of good X}}{\% \text{ change in price of good Y}}$$

The numerical value of cross elasticity depends on whether the two goods in question are substitutes, complements or unrelated.

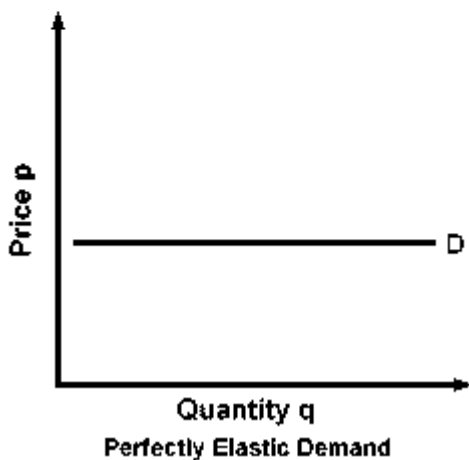
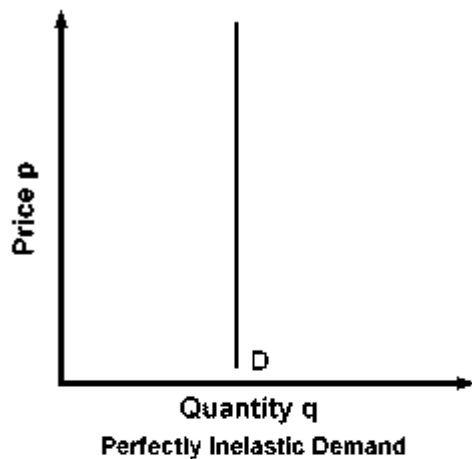
For example: Coke and Pepsi

Degrees of Price Elasticity of Demand:

The economists grouped various degrees of elasticity of demand into five categories. (1) Infinitely elastic, (2) Perfectly inelastic, (3) Unit elasticity, (4) Relatively elastic, and (5) Relatively inelastic demand.

(1) Perfectly inelastic demand: When the quantity demanded of a good does not change at all to whatever change in price, the demand is said to be perfectly inelastic or the elasticity of demand is zero.

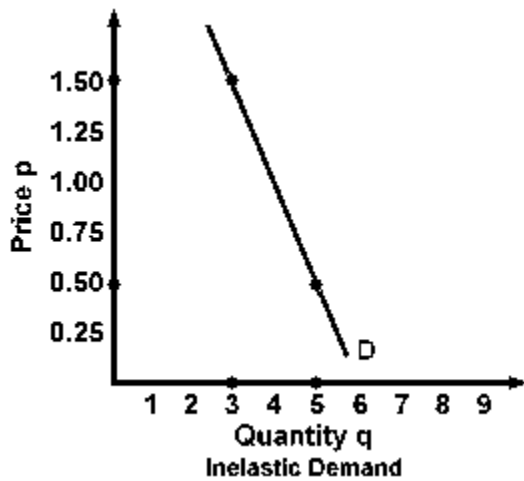
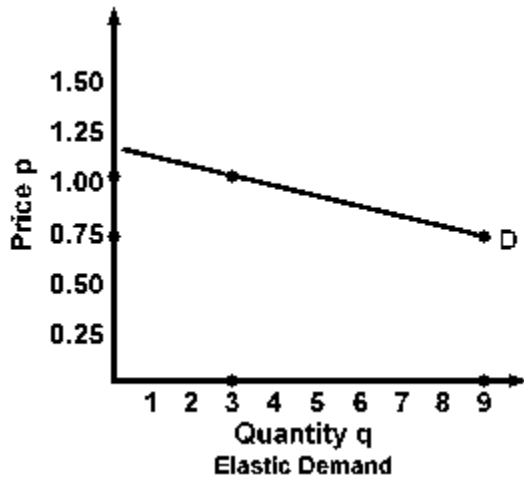
(2) Perfectly elastic demand: A perfectly elastic demand curve DD' is a horizontal line which indicates that the quantity demanded is extremely (infinitely) responsive to price. Even a slight rise in price drops the quantity demanded of a good to zero. The curve DD' is infinitely elastic. This elasticity of demand as such is equal to infinity.



(3) Unitary elastic demand: When the quantity demanded of a good changes by exactly the same percentage as price, the demand is said to be unitary elastic.

(4) Relatively elastic demand: If a given proportionate change in price causes relatively a greater proportionate change in quantity demanded of a good, the demand is said to be relatively elastic. Alternatively, we can say that the elasticity of demand is greater than 1.

(5) Relatively Inelastic demand: When a given proportionate change in price causes a relatively less proportionate change in quantity demanded, demand is said to be inelastic. The elasticity of a good here is less than 1 or less than unity.



Factors Determining Price Elasticity of Demand:

(i) Degree of necessity: If the consumption of the commodity or commodities is essential and necessary, the demand for those commodities is said to be relatively inelastic. In developing countries of the world, the per capita income of the people is generally low. They spend a greater amount of their income on the purchase of necessities of life such as wheat, milk, coarse cloth etc. They have to purchase these commodities whatever be their price. The demand for goods of necessities is, therefore, less elastic or inelastic. The demand for luxury goods, on the other hand is greatly elastic whose consumption can be postponed. For example, refrigerators, televisions etc

(ii) Availability of substitutes. If a good has greater number of close substitutes available in the market, the demand for the good will be greatly elastic. For examples, if the price

of Coca Cola rises in the market, people will switch over to the consumption of Pepsi Cola. which is its close cheaper substitute. So the demand for Coca Cola is elastic.

(iii) Proportion of the income spent on the good: If the proportion of income spent on the purchase of a good is very small, the demand for such a good will be inelastic. For example, if the price of a box of matches or salt rises by 50%, it will not affect the consumers' demand for these goods. The demand for salt, match box therefore will be inelastic. On the other hand, if the price of a car rises from Rs.6 lakh to Rs.9 lakh and it takes a greater portion of the income of the consumers, its demand would fall. The demand for car is, therefore, elastic.

(iv) Time. The period of time plays an important role in shaping the demand curve. In the short run, when the consumption of a good cannot be postponed, its demand will be less elastic. In the long run if the rise price persists, people will find out methods to reduce the consumption of goods. For example: if the price of electricity goes up, it is very difficult to cut back its consumption in the short run than in the long run by adoption of available alternatives.

(v) Number of uses of a good. If a good can be put to a number of uses, its demand is more elastic ($E_p > 1$). For example, if the price of coal falls, its quantity demanded will rise considerably because demand will be coming from households, industries, railways etc.

Practical Importance of Elasticity of Demand:

1. Importance in taxation policy: The concept has immense importance in the sphere of government finance. When a finance minister levies a tax on a certain commodity, he has to see whether the demand for that commodity is elastic or inelastic. If the demand is inelastic, he can increase the tax and thus can collect larger revenue.
2. Price discrimination by monopolist: If the monopolist finds that the demand for his commodities is inelastic, he will at once fix the price at a higher level in order to maximize his net profit. In case of elastic demand, he will lower the price in order to increase, his sales and derive the maximum net profit.
3. Importance to businessmen: When the demand of a good is elastic, they increase sale by lowering its price. In case the demand is inelastic, they charge higher price for a commodity.
4. Help to trade unions. The trade unions can raise the wages of the labor in an industry where the demand of the product is relatively inelastic. On the other hand, if the demand, for product is relatively elastic, the trade unions cannot press for higher wages.
5. Use in international trade: The terms of trade between two countries are based on the elasticity of demand of the traded goods.
6. Determination of rate of foreign exchange: The rate of foreign exchange is also considered on the elasticity of imports and exports of a country.
7. Guideline to the producers: The concept of elasticity provides a guideline to the producers for the amount to be spent on advertisement. If the demand for a commodity is

elastic, the producers shall have to spend large sums of money on advertisements for increasing the sales.

8. Use in factor pricing: The factors of production which have inelastic demand can obtain a higher price in the market than those which have elastic demand. This concept explains the reason of variation in factor pricing.

Lecture No.15**Supply – meaning, definition, law of supply, supply schedule, supply curve****SUPPLY***Meaning of supply*

It is the amount of a commodity that sellers are able and willing to offer for sale at different prices per unit of time. In the words of Meyer “Supply is a schedule of the amount of a good that would be offered for sale at all possible prices at any period of time; e.g., a day, a week, and so on”.

Difference/Distinction between Supply and Stock:

Supply refers to that quantity of the commodity which is actually brought into the market for sale at a given price per unit of time. While Stock is meant the total quantity of a commodity this exists in a market and can be offered for sale at a short notice. The supply and stock of a commodity in the market may or may not be equal if the commodity is perishable, like vegetables, fruits, fish, etc; then the supply and stock are generally the same. But in case if a producer finds that the price of his product is low as compared to its cost of production, he tries to withhold the entire or a part of a stock. In case of a favorable price, the producer may dispose off large quantities or the entire stock of his commodity; it will all depend upon his own valuation of the commodity at that particular time.

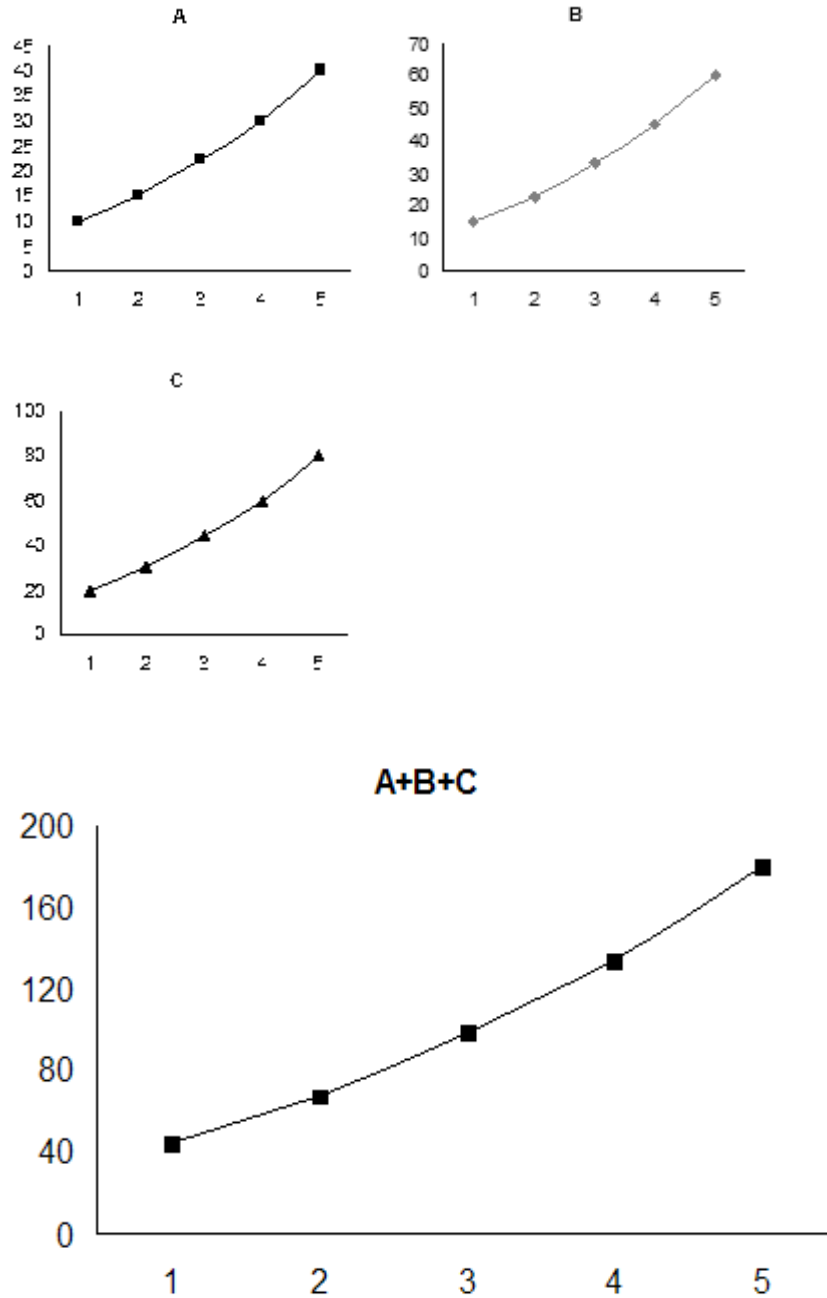
Market supply

Consider the supply schedule below:

Price	Quantity supplied by			Market Supply
	A	B	C	
Rs				A+B+C
10	40	60	80	180
8	30	45	60	135
6	22	33	44	99
4	15	23	30	68
2	10	15	20	45

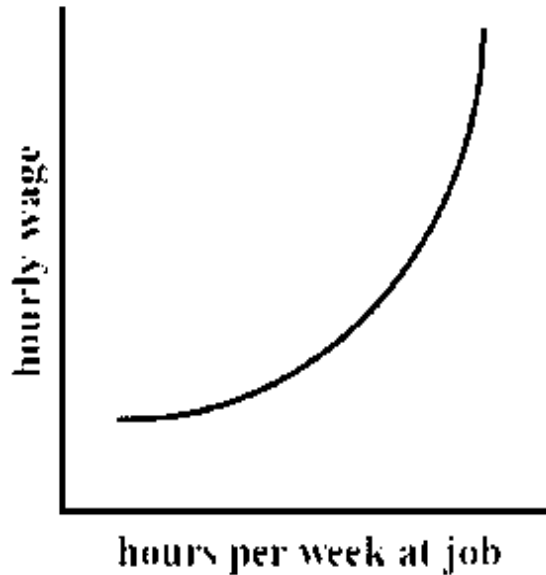
We can see in the above table, the supply schedule of three producers A, B and C for various price levels. As seen in the table above the supply of goods decreases as the price of the goods fall. Now consider that the market consists of only these three suppliers, so the market supply will be the sum of the goods supplied at various price levels all other things remaining same. The same is depicted using the charts below. The first three charts

show the individual supply curve of A, B and C as per the supply schedule above, while the chart below that depicts the market supply curve i.e. the aggregate supply of A, B and C



Law of Supply

The law of supply states that the quantity of a good offered or willing to offer by the producer/owners for sale increase with the increase in the market price of the good and falls if the market price decreases, all other things remaining unchanged. An increase in price will increase the incentive to supply which means that supply curves will slope upwards from left to right. Supply curves can be curves or straight lines. Consider the supply of labour as in the figure below:



The above supply curve shows the hours per week at job by the labour on the X axis and hourly wages on the Y axis. As we can see that as the hourly wages increase the hours spent on job also increases. Thus the supply curve is a left to right upward sloping curve

Determinants of supply

Quantity supplied of a good/ service is affected by various factors. Several key factors affecting supply are discussed as below:

- Price of the product: Since the producer always aims for maximising his returns/profit, so the quantity supplied changes with increase or decrease in the price of the good.
- Technological changes: Advanced technology can yield more quantity and at lesser costs. This may result in the producer to be willing to supply more quantity of the goods
- Resource supplies and production costs: Changes in production costs like wage costs, raw material cost and energy costs might impact the producers' production and eventually the supply. An increase in such cost might result in lesser quantities produced and thus lesser quantities supplied and vice versa
- Tax or subsidy: Since the producer aims to minimise costs and expand profit, an increase in tax will increase the total cost, thereby decreasing the supply. Similarly a subsidy might incentivize the producer to supply more of that goods in order to maximise his profits. Tax and subsidy are two important tools used by central government to control supplies of certain goods. For example an increase in tax can be used to reduce the supply of cigarettes, while increase in subsidy can be used to increase the supply of fertilizers
- Expectations of prices in future: An expectation that the prices of goods will fall in future might lead to lessen the production by the producer and thereby decrease the supply and vice-versa.

- Price of other goods: A producer might have several options to produce. Since the money to invest is limited with the producer he would decide to produce the good which offers him the maximum profit. Thus if the producer is currently producing good A and the price of good B increases than he might switch to producing good B as this would result in better returns for him.
- Number of producers in the market: This is a very important factor or determinant of supply. If there are large number of producers or sellers in the market willing to sell goods then the supply of good will increase and vice versa

Supply function

Supply function expresses the relationship between supply and the factors (the determinants of supply, as discussed above) affecting the producer/supplier to offer goods for sale.

For instance take the supply function as below

$$Q_s = f(P, P_{rg}, S)$$

where;

P = price;

P_{rg} = price of related goods; and

S = number of producers.

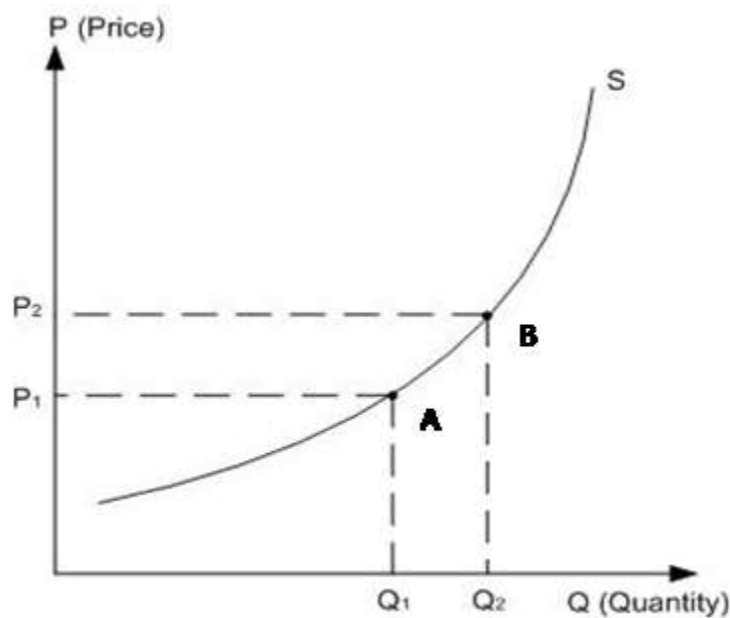
The supply curve is the graphical representation of the supply function and it shows the quantity of a good that the seller is offering or willing to offer at various prices

Lecture No.16

Increase and decrease in supply, contraction and extension of supply, factors affecting supply.

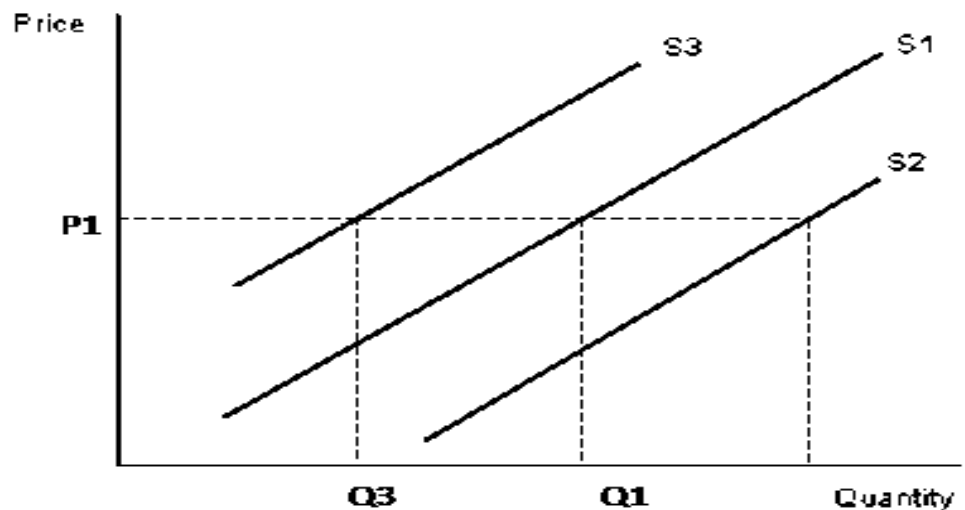
Movement along the Supply curve (Extension and contraction)

Movement along the supply curve happens due to change in the price of the good and resulting change in the quantity supplied at that price. For instance, an increase in the price of the good from P_1 to P_2 in the figure below results in an increase of quantity supplied of the good from Q_1 to Q_2 . This movement from point A to point B on the supply curve S due to change in price of the good all other factors of supply remaining unchanged is called movement along the supply curve.



Shifts in the Supply curve

Shift in the supply curve is also sometimes referred as a change in supply. This happens due to changes in factors of supply other than that of price of the good. For example, if the price of a factor or of a related good increases the supply curve shifts. Similarly changes in technology and government tools like tax and subsidy tends to shift supply curve.



The supply curve can shift to the right or left as shown in the figure. A shift towards the right i.e. from S1 to S2 curve denotes an increase in supply of the good. Similarly a shift in the supply curve from S1 to S3 denotes a decrease in supply of the good.

As seen in the figure above a rightward shift in the supply curve from S1 to S2 increases supply from Q1 to Q2 while the price of the good remains same at P1. Similarly a leftward shift from S1 to S3 decreases supply from Q1 to Q3 whilst the price remaining unchanged at P1

Factors affecting changes in supply:

The factors causing Shifts in supply curve are

- i. Changes in Factor Prices: If the prices of the various factors of production fall down, it will result in lowering the cost of production and so an increase in the supply on varying prices.
- ii. Changes in Technique: If an improvement in technique takes place in a particular industry, it will help in reducing its cost of production. This will result in greater production and so an increase in the supply of the commodity. The supply curve will shift to the right of the original supply curve.
- iii. Improvement in the Means of Transport: The supply of the commodity may also increase due to improvement in the means of communication and transport. If the means of transport are cheap and fast, then supply of the commodity can be increased at a short notice at lower price.
- iv. Climatic Changes in case of Agricultural Products: The supply of agricultural products is directly affected by the weather conditions and the use of the better methods of production. If rain is timely, plentiful, well-distributed and improved methods of cultivation are employed then other things remaining the same, there will be bumper crop. It would then be possible to increase the supply of the agricultural products.
- v. Political Changes: The increase or decrease in supply may also take place due to political disturbances in a country. If a country wages wars against another country or some kind of political disturbances take place just as we had at the time of partition, then the channels of production are disorganized. It results in the decrease of certain goods the supply curve shifts to the left of original curve.
- vi. Taxation Policy: If a government levies heavy taxes on the import of particular commodities, then the supply of these commodities is reduced at each price. The supply curve shifts to the left, conversely, if the taxes on output in the country are low and government encourages the import of foreign commodities, then the supply can be increased easily. The supply curve shifts to the right of original supply curve.
- vii. Goals of firms. If the firms expect higher profits in the future, they will take the risk and produce goods on large scale resulting in larger supply of the commodities. The supply curve shifts to the right.

Lecture No.17

Elasticity of supply, kinds of elasticity of supply – perfectly elastic, perfectly inelastic, relatively elastic, relatively inelastic and unitary elastic - factors affecting elasticity of supply.

Elasticity of Supply:

Elasticity of Supply: it is defined as the responsiveness or sensitiveness of supply to the changes in the price of the good.

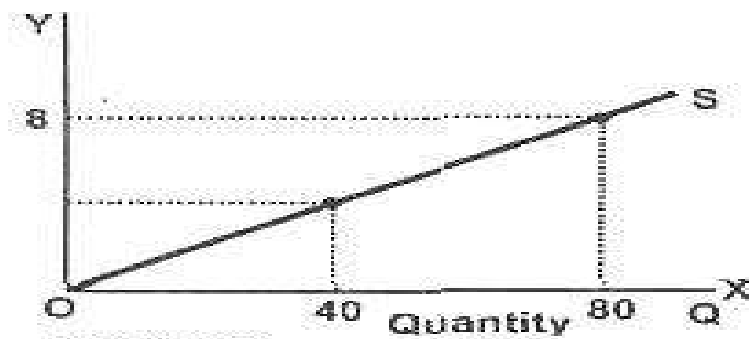
The extent to which quantity supplied of a commodity changes with the given change in the price refers to elasticity of supply.

There are five degrees of elasticity of supply. They are discussed in brief as under:

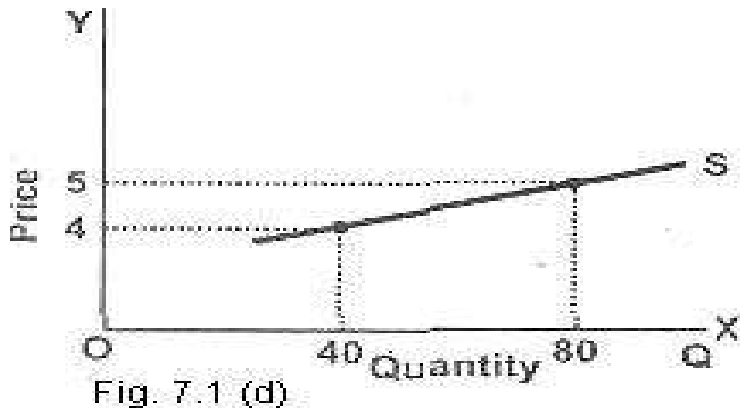
(i) Perfectly elastic supply. Supply curve in graph 7.1 (a) is perfectly elastic (horizontal). The firm will supply any amount of output at Rs.4 per unit. If the price falls below Rs.4 (say Rs.3.5) per unit, then the quantity supplied falls to zero. The price is too low to sustain any producer in the market. Elasticity of supply is infinite.

(ii) Perfect inelastic supply. A perfectly inelastic supply represents a situation in which sellers sell a fixed quantity of good for sale. The price increase from Rs.4 to Rs. 8 has not led to increase in quantity supplied. The quantity supplied is totally unresponsive to changes in price. The supply curve is vertical = $E_s = 0$.

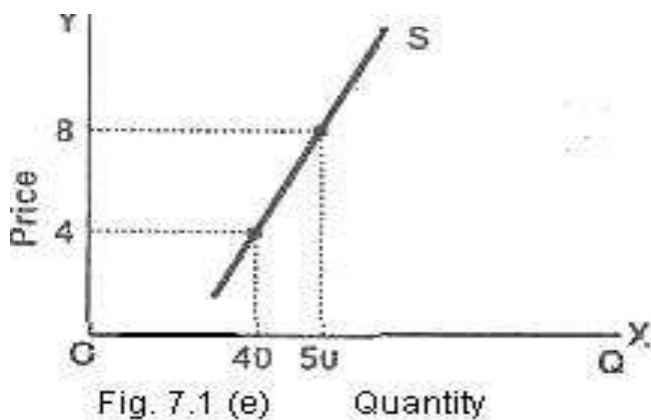
(iii) Unit elastic supply. In case of unit elasticity of supply, the percentage change in price brings about the same percentage change in quantity supplied of a good. In figure 7.1(c) doubling the price of a good from Rs.4 to Rs.8 per unit doubles the quantity supplied from 40 to 80 units $E_s = 1$.



(iv) Elastic supply. When the percentage increase in the price of a good brings about, a larger percentage increase in the supply of a good, the supply of a good said to elastic. Fig. 7.1(d) shows a 25% increase in the price of a good (Rs.4 to Rs.5), causes a 100% increase in the supply of goods (from 40 to 80 units per day) ($E_s > 1$). The supply curve has a flatter slope.



(v) Inelastic supply. When the percentage change in price of a good causes a smaller percentage in quantity supplied, the supply is said to be inelastic ($E_s < 1$). In fig. there is an 100% increase in the price of good (from Rs.4 to Rs.8) but it brings a 25% increase in-the quantity supplied (40 to 50 units per day). The supply curve is steeply sloped.



Note: The category of elasticity of supply at any point on the supply curve can be judged by drawing a tangent to the point of the curve under consideration. If the tangent meets the vertical axis, then supply is elastic at that point and its value will be between one and infinity.. In case it touches, the horizontal axis, then the supply of the good is inelastic at that point and its value will lie between zero and one. Any straight line supply curve through the origin will have unitary elastic.

Determinants of Price Elasticity of Supply:

The main factors which determine the degree of price elasticity of supply are as under:

- (i) Time period. Time is the most significant factor which affects the elasticity of supply. If the price of a commodity rises and the producers have enough time to make adjustment in the level of output, the elasticity of supply will be more elastic. If the time period is short and the supply cannot be expanded after a price increase, the supply is relatively inelastic.
- (ii) Ability to store output. The goods which can be safely stored have relatively elastic supply over the goods which are perishable and do not have storage facilities.

(iii) Factor mobility. If the factors of production can be easily moved from one use to another, it will affect elasticity of supply. The higher the mobility of factors, the greater is the elasticity of supply of the good and vice versa.

(iv) Changes in marginal cost of production. If with the expansion of output, marginal cost increases and marginal return declines, the price elasticity of supply will be less elastic to that extent.

(v) Excess supply. When there is excess capacity and the producer can increase output easily to take advantage of the rising prices, the supply is more elastic. In case the production is already up to the maximum from the existing resources, the rising prices will not affect supply in the short period. The supply will be more inelastic.

(vi) Availability of infrastructure facilities. If infrastructure facilities are available for expanding output of a particular good in response to the rise in prices, the elasticity of supply will be relatively more elastic.

(vii) Agricultural or industrial products. In agriculture, time is required to increase output in response to rise in prices of goods. The supply of agricultural goods is fairly inelastic. As regards the supply of manufactured consumer goods, it is comparatively easy to increase production in a short period. Therefore, the supply of consumer goods is fairly more elastic; In case of supply of aero planes or any other heavy machinery, the supply is relatively inelastic as it takes time to manufacture heavy machinery.

Lecture no:18

Price determination – equilibrium price and quantity – determination of market price

PRICE DETERMINATION UNDER PERFECT COMPETITION

Having studied the demand and supply, we know that market demand curve is the horizontal summation of the individual demand curves, and similarly the horizontal summation of the individual supply curves become market supply curve.

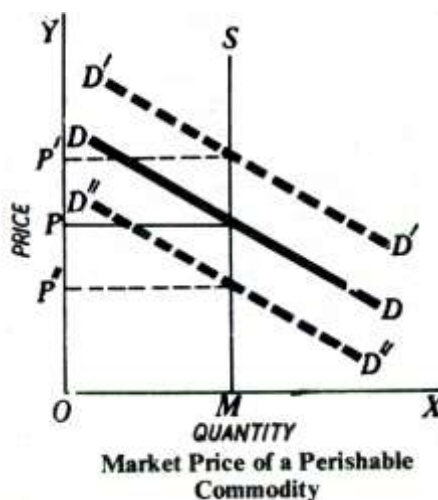
The intersection of market demand curve and the market supply curve indicates the equality of quantity demanded by the consumers and that supplied by the producers. This equality of quantity demanded and quantity supplied is called equilibrium quantity and the price that occurs at this balancing point is called equilibrium price where the quantity demanded is equal to quantity supplied. When such condition prevails in the market, the market is said to be in equilibrium, because there are neither shortages nor surpluses of commodity.

DETERMINATION OF MARKET PRICE

Market price is determined by the equilibrium between demand and supply in market period or very short run. This market period may be an hour, a day or a few days or even a few weeks depending upon the nature of the product. The period being short, stock is limited and cannot be produced to meet the increase in demand. Therefore, the sellers have to confine to the produce available with them. Example: Perishable commodities like fish. The nature of supply curve in a market period under the two situations of perishable and non-perishable goods are discussed

Market Price of a Perishable Commodity

The graphical representation for the market price of Perishable Commodity like fish is presented in Figure . The supply is limited by the available quantity on that day, and it cannot be kept back for the next period and therefore, the whole of it must be sold away on the same day at prevailing prices.



The supply curve of fish is a vertical straight line MS, when OM is the quantity of fish available on that day. DD is the market demand curve. With perfect competition between buyers and sellers, an equilibrium price OP will be determined at which the quantity demanded is equal to the available supply. That is, equilibrium price will be established at the point where downward sloping demand curve DD intersects the vertical supply curve MS.

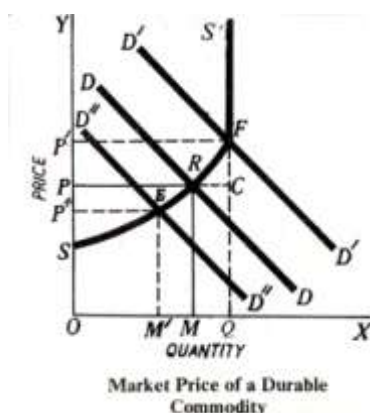
Now suppose that there is a sudden increase in demand from DD to D'D' with the supply of fish remaining unchanged, the larger demand will raise the market price sharply from OP to OP'. On the contrary, if there is a decrease in demand from DD to D'' D'' the price will fall and the quantity sold will remain the same.

Market Price of Non-Perishable and Reproducible Goods

In case of non-perishable but reproducible goods, supply curve cannot be a vertical straight line and the seller rough out its length, because some of the goods can be preserved or kept back from the market and carried over to the next market period. There will then be two critical price levels. The first, if price is very high the seller will be prepared to sell the whole stock. The second level is set by a low price at which the seller would not sell any amount in the present market period, but will hold back the whole stock of some better time. The price below which the seller will refuse to sell is called the Reserve Price.

Given the two price levels, one at which the seller is prepared to sell the whole stock and the other at which he will refuse to sell at all, the amount which he will offer for sale will vary with price. Given his anticipations of future price and intensity of his need for cash, etc., he will be prepared to supply more at a higher price than at a lower one. The supply curve of a seller will, therefore, slope upward to the right. Beyond a price at which he is prepared to sell the whole stock, the supply curve will be a vertical straight line whatever the price.

In Figure SRFS' is the supply curve of the durable goods while OQ is the total amount of the stock of the goods. Up to price OP', the quantity



Supplied varies with price so that at a higher price more is supplied than at a lower one. At the price OS, nothing is sold, the whole stock being held back. Therefore, SF portion of the supply curve slopes upwards from left to right. At price OP' the whole of the stock is offered for sale, and beyond the price OP' the quantity supplied remains the same what

ever the price. Therefore, beyond the price OP' , the market supply curve will be vertical straight line (FS'). DD is the demand curve which slope downwards from left to right. Market price comes to settle at OP , because at this price the quantity demanded is equal to the quantity supplied. At this equilibrium price OP , OM amount from the stock is sold, while the rest of the stock i.e., $MQ (=RC)$ is held back from the market.

Suppose now the demand increases from DD to $D'D'$, the price will rise to OP' , and the whole stock OQ will be sold. If now the demand, further increase

from $D'D'$ to some higher level, the quantity supplied or sold will remain the same, i.e., equal to OQ , and only the price will rise so that, at the new equilibrium level, the quantity demanded is equal to the available supply. If the demand decreases from DD to $D'D''$, the price will be fall to OP'' , and the amount sold will decrease to OM' .

Since, in a perfectly competitive market, the product is homogeneous and no buyer has any preference for a particular seller, therefore, a single uniform market price will be established in the market. Once the market price is determined, an individual seller in the market will take the price as given and constant. Thus, the demand curve which is downward slopping for all sellers is for a single seller a horizontal straight line, i.e., perfectly elastic at the level of the ruling market price.

One important conclusion that follows from the above analysis of price determination in the market period is that costs of production do not enter into the calculation of the seller, and therefore, have little influence on the market price.

Lecture No.19

Markets – definition, essentials of market, classification of market structure – perfect and imperfect markets

MARKET

The word market has been derived from the Latin word ‘marcatus’ which means merchandise or trade.

Definitions:

- A market is any place where the sellers of a particular good or service can meet with the buyers of that goods and service where there is a potential for a transaction to take place. The buyers must have something they can offer in exchange for there to be a potential transaction.
- A market is the sphere within which price determining forces operate.
- A market is the area within which the forces of demand and supply converge to establish a single price.
- Economists understand by the market not any particular market place in which things are bought and sold but the whole of any region in which buyers and sellers are in such free contact with one another that the prices of the same goods tend to equality easily and quickly.

Essentials of a Market :

They may also be termed as the components of a market.

1. The existence of a good or commodity for transactions.
2. The existence of buyers and sellers
3. Business relationship or intercourse between buyers and sellers
4. Demarcation of area such as place, region, country or the whole world.

Market Structure : It refers to the size and design of the market. It relates to those organizational characteristics of a market which influence the nature of competition and pricing and affect the conduct of business firms.

Monopsony is a market structure in which there is only one buyer instead of one seller.

Oligopsony is a market structure in which there are only few buyers.

Bilateral monopoly is a market structure in which a single seller faces a single buyers

Markets are classified based on the degree of competition as perfect and imperfect market

Perfect market : A market is said to be perfect when all the potential sellers and buyers are promptly aware of the prices at which transaction take place and all the offers made by other sellers, and buyers, and when any buyer can purchase from any seller and conversely. Under such a condition, the price of a commodity will tend to be the same (after allowing for cost of transport including import duties) all over the market.

Imperfect market : A market is said to be imperfect when some buyers or sellers or both are not aware of the offers being made by others. Different prices prevail for the same commodity at the same time.

Comparative Characteristics of Markets

	Perfect Competition	Monopolistic Competition	Oligopoly	Monopoly
Number & Nature of Sellers	<ul style="list-style-type: none"> • Many (small sellers) • Independent 	Many (small to medium)	<ul style="list-style-type: none"> • Few (large) • Inter - dependent 	One
Price	No control	Some control	Considerable control	Absolute control
Nature of Product	Homogeneous (no differentiation)	Some differentiation	Sometimes but not always	No substitutes
Barriers to entry	None	Low	Considerable	Entry is blocked
Profit Potential	Normal Profits in LR	Some profits in SR & LR	Considerable Profits in SR & LR	Large Profits in SR & LR
Product Promotion & Advertising	None or minimal	Considerable	Heavy	Some but not directed to competition, but to increase sales

PERFECT COMPETITIVE MARKET

Perfect competition market is the world of price-takers. A perfectly competitive firm sells a homogeneous product [one identical to the product sold by others in the industry]. It is so small relative to its market that it cannot affect the market price; it simply takes the price as given.

Perfect competition market is a market under which no buyer or seller can affect unilaterally

Characteristics of Perfect Competition Market:

The main characteristics of perfect competition market are as follows:

01. Large Number of Buyers and sellers:

One condition of perfect competition is that there should be operating in the market a large number of buyers and sellers. If that is so, no single seller or purchaser will be able to influence the market price, because the output of any single firm is only a small proportion of the total output and of the total demand.

02. Homogeneous Product:

The second condition is that the commodity produced by all firms should be standardized or identical

03. Free Entry or Exit:

There should be no restrictions, legal or otherwise, on the firms' entry into, or exit from, the industry. In this situation, all the firms will be making just normal profit. If the profit is more than normal, new firms will enter and extra profit will be competed away; and if, on the other hand, profit is less than normal, some firms will quit, raising the profits for the remaining firms. But if there are restrictions on the entry of new firms, the existing firms may continue to enjoy supernormal profit. Only when there are no restrictions on entry or exit, the firms will earn normal profit.

04. Perfect Knowledge: Another assumption of perfect competition is that the purchasers and sellers should be fully aware of the prices that are being offered and accepted. In case there is ignorance among the dealers, the same price cannot rule in the market for the same commodity. When the producers and the customers have full knowledge of the prevailing price, nobody will offer more and none will accept less, and the same price will rule throughout the market. The producers can sell at that price as much as they like and the buyers also can buy as much as they like

05. Absence of Transport Costs: If the same price is to rule in a market, it is necessary that no cost of transport has to be incurred. If the cost of transport is there, the prices must differ to that extent in different sectors of the market.

06. Demand Curve of Perfect Competition Market is Completely Horizontal:

Figure-01: Demand curve looks horizontal to a perfect competitor.

The industry demand curve has inelastic demand at the market equilibrium. However, the demand curve for the perfectly competitive firm is horizontal (i.e. completely elastic).

07. No Government Regulation: Government does not intervene in the marketing functions.

Pure competition differs from perfect competition in the sense that it excludes the features of Perfect mobility of resources and Perfect knowledge.

Lecture No.20

Characteristics of monopolistic competition, monopoly, oligopoly

Monopolistic Competition, Monopoly and Oligopoly

Chamberlin is associated with Monopolistic Competition

Characteristic features of Monopolistic Competition:

- i) Large Number of firms:** The number of firms operating under monopolistic competition is sufficiently large. Moreover there is freedom of entry. There are no quantitative restrictions or differences in market conditions. However, each firm differs from its rivals in some qualitative respect.
- ii) Close Substitutes:** Under monopolistic competition firms produce very close substitutes. Chocolates of one company may serve a similar purpose as that of some other firm. The only difference may be of some variation in the quality of the product.
- iii) Group:** Firms under monopolistic competition together form a group. They cannot be called an industry. This is because their products are somewhat dissimilar and not homogenous as under competitive industry.
- iv) Product Differentiation:** Under monopolistic competition products are differentiated. This is the outstanding feature of this form of market. Otherwise monopolistic competition closely resembles perfect competition. The fundamental difference between the two is that products are no more homogenous. Goods produced are deliberately differentiated by trade name or brand name or salesmanship or quality etc.
- (v) Selling (Advertising) Cost:** Selling Cost i.e., advertisement expenditure and Product Differentiation together enable the producer to maintain some control over market conditions and influence the shape of the demand curve. Whenever a *product* is *differentiated* it is necessary to inform buyers; and advertisement is the only medium through which buyers can be told about superiority of that product.

Features of Monopoly: Monopoly is another traditional form of market. It is an extreme form, opposed to a competitive market structure. As against this, a competitive market is one with a large number of firms or producers.

1. Monopoly is a case where there is only a single seller in the market. This, however, is a theoretical concept.
2. Absence of substitutes: for the goods produced and sold by the monopolists. Buyers have no other option except to purchase goods from the monopolist at whatever price he charges. This results in a situation in which the monopolist has complete control over market conditions. He can decide his own price and earn profits without any fear of

competition from his rivals. The Cross Elasticity of Demand is negligible or very low. Yet a monopolist has certain constraints arising out of demand and technical conditions.

3. There is no distinction between the firm and industry in monopoly market situation.

4. There is complete negation of competition.

Oligopoly

The word **OLIGOPOLY** is derived from the Greek words ‘olig’ means a few and ‘poly’ which means sellers.

Oligopolistic Market refers to a market characterized by the presence of a small number of producers who often act together to control the supply of a particular good and its market price.

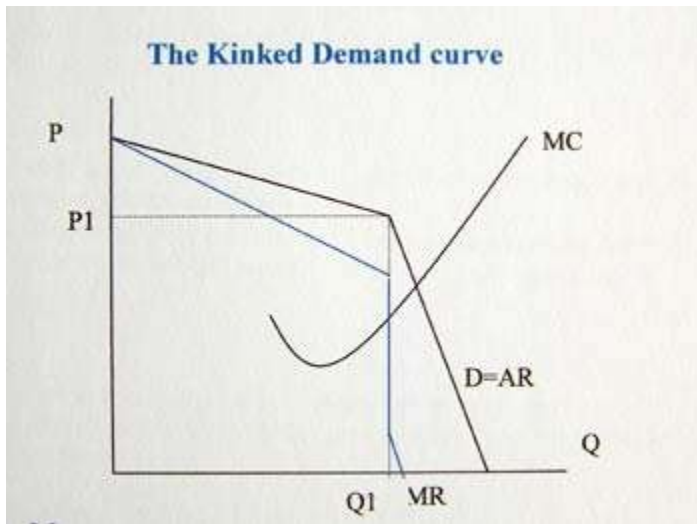
It is dominated by a few large suppliers who are interdependent on each other, before making any pricing and investment decisions. It is also explained as a market condition in which sellers are so few that an action of any one of them will materially affect price and have a measurable impact on competitors; in other words; since there are few participants in this type of market, each Oligopolist is aware of the actions of the other.

OPEC is an example of Oligopoly since few countries control the production of oil, the steel and the automobile industry in United States of America is another example.

The Key characteristics of an Oligopolistic Market are as follows: -

- It is a market dominated by a small number of participants who are able to collectively exert control over supply and market prices.
- Few firms sell branded products which are close substitutes of each other.
- Entry barriers for the other firms are high; the barriers can be due to patents, copyrights, government rules / regulations or ownership of scarce resources.
- Firms are interdependent for decision making.
- Products can be homogenous (standardized) or heterogeneous (differentiated).
- The sellers are the price makers and not price takers, since the few sellers mutually dominate the pricing decisions.
- The sellers can achieve supernormal profits in the long run.
- The sellers can achieve economies of scale; since for the large producers as the level of production rises, the cost per unit of products decreases; thus ensuring higher profits.
- There is high degree of market concentration, since the four-firm concentration ratio is often used, where the market shares of four largest firms are measured (as a percentage) since they form the major portion of the market share.

An Oligopolist faces a downward sloping demand curve; however; the price elasticity depends on the rival’s reaction to change its price, investment and output.



The Kinked Demand Curve Graph

- This assumes that firms seek to maximise profits
- If they increase price, then they will lose a large share of the market because they become uncompetitive compared to other firms, therefore demand is elastic for price increases.
- If firms cut price then they would gain a big increase in Market share, however it is unlikely that firms will allow this. Therefore other firms follow suit and cut price as well. Therefore demand will only increase by a small amount: Demand is inelastic for a price cut
- Therefore this suggests that prices will be rigid in Oligopoly

The below diagram suggests that a change in Marginal Cost still leads to the same price, because of the kinked demand curve (profit maximization occurs where $MR = MC$)

Lecture No.21

National Income –concepts of national income - Gross domestic product, gross national product, net national product, net domestic product- national income at factor cost, personal income, disposable income.

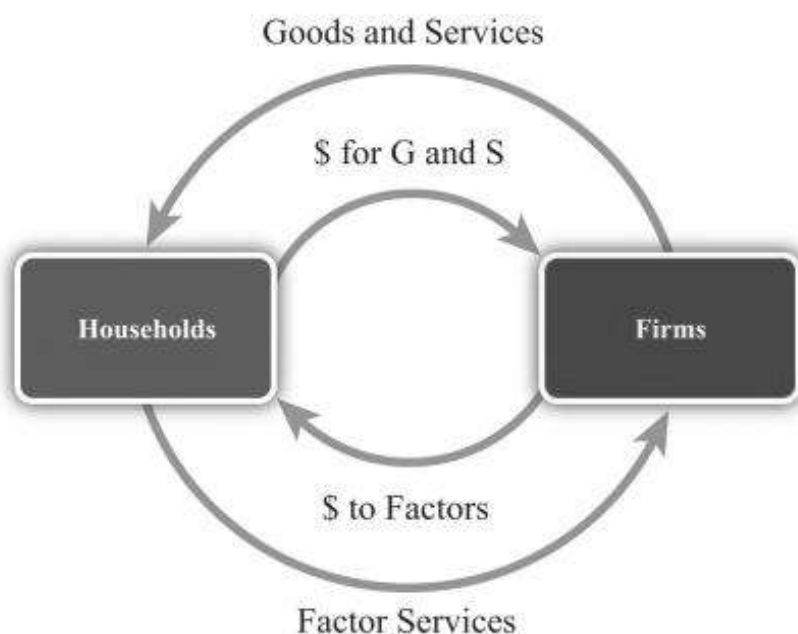
NATIONAL INCOME

Introduction

For understanding the concept of national income, it is necessary to know how an economy works. In any economy, its people are engaged in on productive activity or the other, whereby they earn income and spend their income on goods and services to satisfy their wants. The health and progress of an economy are to be judged from how much they are able to produce and spend i.e. Country's total output, income and expenditure. Those aggregates of the economy are but different aspects of its national, income.

Circular Flow: The Wheel of the Wealth

In every economy there are households on the one hand and productive enterprises or firms on the other. The function of house holds is to consume goods and services for the satisfaction of their wants. Thus the household is the basic consuming unit in the economy. The function of productive enterprises (forms) is to produce goods and services for the satisfaction of the wants of households and thus the firm or productive enterprise is the basic producing unit in the economy. The household here may be family unit while producing unit (firm) may be grocery shop, factory etc. Besides, Government is another sector which occupies an important Position. It like households, purchases goods and services and since it runs many public enterprises it act as, producing unit. Thus households, firms and government are the main components of the entire economic organization of a country which is know as an economy. Economy is the sum total of the operations of the households, firms and government.



In every economy there is always a circular flow (movement) of resource services (i.e. services of land, labour capital and enterprise) from the household to firms and the reverse movement of goods and services from the firms to the households. This is depicted in the diagram given below.

The inner circuit shows the real flows would take place only in barter economy where goods and services are exchanged for goods and services. But in the modern economy where use of money as medium of exchange is widely adopted

Households supply the resource services or factors to firms and receive in return payments in terms of money for goods and services they want. The firms sell goods and services for money and use the money so received to pay the households for their supply of resource services. Thus labour gets Wages; capital gets interest land gets rent and enterprise gets profits all in terms of money, this circular flow of money also known as **Wheel of Wealth**. This flow of money is not continuously at steady level. It may contract or expand when depression and prosperity occur, respectively in an economy. The diagram explains circular flow of closed economy where savings and role of Government is totally absent.

Definition of National Income

- 1) National Income is that part of objective income of the community, including income derived from abroad, which can be measured in money” - Pigou.
- 2) National income may be defined as the money value of the flow of commodities and services (excluding imports) reckoned at current prices less the sum of following/items, at current prices.

Money value of diminution in stocks

Money value of goods and services used up in the course of production

Money value of goods and services used to maintain intact existing capital equipments.

Receipts from indirect taxation.

Favorable balance of trade

Net increase in the country's foreign indebtedness.

In short, National Income is the aggregate factor income (i.e. earning of labour and property) which arises from the current production goods and services by the nation's economy. Here nation's economy refers to the factors of production Labour and property, supplied by the normal residents of the/ national territory. The national income has three interpretations

- 1) It represents a receipts total.
- 2) It represents expenditure total.
- 3) It represents a total value of production.

These three - fold interpretation arises out of fact that, every expenditure is at the same time a receipt and of goods and services purchased (bought) are valued at their sales prices. Thus

Value Received = Value paid = Value of goods & services

Concepts of National Income

The important concepts of National Income are:

1. Gross Domestic Product (GDP)
2. Gross National Product (GNP)
3. Net National Product (NNP) at Market Prices
4. Net National Product (NNP) at Factor Cost or National Income
5. Personal Income
6. Disposable Income

1. Gross Domestic Product (GDP): Gross Domestic Product (GDP) is the total market value of all final goods and services currently produced within the domestic territory of a country in a year.

It measures the market value of annual output of goods and services currently produced. This implies that GDP is a monetary measure. All goods and services produced in any given year must be counted only once so as to avoid double counting. It ignores the transactions involving intermediate goods.

2. Gross National Product (GNP): Gross National Product is the total market value of all final goods and services produced in a year. GNP includes net factor income from abroad whereas GDP does not. Therefore,

$GNP = GDP + \text{Net factor income from abroad.}$

Net factor income from abroad = factor income received by Indian nationals from abroad – factor income paid to foreign nationals working in India.

3. Net National Product (NNP) at Market Price: NNP is the market value of all final goods and services after providing for depreciation. That is, when charges for depreciation are deducted from the GNP we get NNP at market price. Therefore, $NNP = GNP - \text{Depreciation}$

Depreciation is the consumption of fixed capital or fall in the value of fixed capital due to wear and tear.

4. Net National Product (NNP) at Factor Cost (National Income): NNP at factor cost or National Income is the sum of wages, rent, interest and profits paid to factors for their contribution to the production of goods and services in a year. It may be noted that:

$NNP \text{ at Factor Cost} = NNP \text{ at Market Price} - \text{Indirect Taxes} + \text{Subsidies.}$

5. Personal Income: Personal income is the sum of all incomes actually received by all individuals or households during a given year. In National Income there are some income, which is earned but not actually received by households such as Social Security contributions, corporate income taxes and undistributed profits. On the other hand there are income (transfer payment), which is received but not currently earned such as old age pensions, unemployment allowances, relief payments, etc. Thus, in moving from national income to personal income, the incomes earned but not received should be deducted and add incomes received but not currently earned. Therefore,

$\text{Personal Income} = \text{National Income} - \text{Social Security contributions} - \text{corporate income taxes} - \text{undistributed corporate profits} + \text{transfer payments.}$

Disposable Income: It is the amount of money available with the private individuals to spend. From personal income if we deduct personal taxes like income taxes, personal property taxes etc. what remains is called disposable income. Thus,

$\text{Disposable Income} = \text{Personal income} - \text{personal taxes.}$

Disposable Income can either be consumed or saved. Therefore,

$\text{Disposable Income} = \text{consumption} + \text{saving.}$

Lecture No.22

Methods of measurement of NI – product method, income method and expenditure method

MEASUREMENT OF NATIONAL INCOME

Production generate incomes which are again spent on goods and services produced. Therefore, national income can be measured by three methods:

1. Output or Production method
2. Income method, and
3. Expenditure method.

Let us discuss these methods in detail.

1. Output or Production Method: This method is also called the value-added method. This method approaches national income from the output side. Under this method, the economy is divided into different sectors such as agriculture, fishing, mining, construction, manufacturing, trade and commerce, transport, communication and other services. Then, the gross product is found out by adding up the net values of all the production that has taken place in these sectors during a given year.

In order to arrive at the net value of production of a given industry, intermediate goods purchased by the producers of this industry are deducted from the gross value of production of that industry. The aggregate or net values of production of all the industry and sectors of the economy plus the net factor income from abroad will give us the GNP. If we deduct depreciation from the GNP we get NNP at market price. NNP at market price – indirect taxes + subsidies will give us NNP at factor cost or National Income.

The output method can be used where there exists a census of production for the year. The advantage of this method is that it reveals the contributions and relative importance and of the different sectors of the economy.

2. Income Method: This method approaches national income from the distribution side. According to this method, national income is obtained by summing up of the incomes of all individuals in the country. Thus, national income is calculated by adding up the rent of land, wages and salaries of employees, interest on capital, profits of entrepreneurs and income of self-employed people.

This method of estimating national income has the great advantage of indicating the distribution of national income among different income groups such as landlords, capitalists, workers, etc.

3. Expenditure Method: This method arrives at national income by adding up all the expenditure made on goods and services during a year. Thus, the national income is

found by adding up the following types of expenditure by households, private business enterprises and the government: -

(a) Expenditure on consumer goods and services by individuals and households denoted by C. This is called personal consumption expenditure denoted by C.

(b) Expenditure by private business enterprises on capital goods and on making additions to inventories or stocks in a year. This is called gross domestic private investment denoted by I.

(c) Government's expenditure on goods and services i.e. government purchases denoted by G.

(d) Expenditure made by foreigners on goods and services of the national economy over and above what this economy spends on the output of the foreign countries i.e. exports – imports denoted by

$(X - M)$. Thus,

$$\text{GDP} = C + I + G + (X - M).$$

Difficulties in the Measurement of National Income

1. Prevalence of non monetized transactions in agriculture still lot of product does not come into the market, It consumed at farm level.
2. Illiteracy - Due to illiteracy it is not possible to keep regular account.
3. Occupational specialization is incomplete.
4. Lack of adequate statistical data.
5. Estimation of value of inventories i.e. raw material is very difficult.
6. Estimation of depreciation on capital goods and avoiding double counting is too much difficult.

Use of National Income data: It is very useful to measure economic welfare, determine standard of living of a community, similarly to assess economic development and for comparison purpose the national income is must.

Lecture No.23

Public Finance – meaning, Role and importance of Public finance - functions of the government – Differences between public finance and private finance

PUBLIC FINANCE

Every Government has to perform different functions and for this purpose it requires funds. These funds however are contributed by the every citizen of the country. The contribution may be less or more but it is necessary. Thus Public Finance deals with “Why Government takes money how it gets money and where it spends money?”

Distinction between Public and Private Finance:

Individual and states are similar in that they

1. Both require resources
2. Both have to maximum results from their resources.
3. Both attempts to get the best out of all items of expenditure.

There are, however, some important differences between private and public finance:
They are

	Public Finance	Private Finance
1	State’s proposed expenditure determines its income.	Income determines its expenditure
2	A public authority can vary the amount of its income and expenditure within limits	An individual can not change his income and expenses easily.
3	A state is always repay its funds to people in services and does not save the funds.	After meeting the needs, individual prefers for saving the income.
4	State budgets are generally for one year	For individual there is no fixed period of time. The income expenditure is continuous.
5	The state budget is public	It is kept a secret.
6	State can issue paper Currency to meet its Expenditure.	It is not possible for individual

Importance of Public Finance

Every body realizes necessity of money. The importance of money is too much not only for individual but for state (Government) also. The state has to perform number of

functions for which money (funds) is required. In developing countries like India, Government is performing many important functions like education, industrial and agricultural developments but lack of funds is one of the constraints. For beginning of any function funds (finance) is must and in view of this the public finance nowadays has vital importance. Its importance can be easily understood from the **functions of the Government**. They are

- 1) Allocative Function: It refers to the process by which total resource use is divided between private and social goods by which the mix of social goods is chosen, this is done by the budgetary policy.
- 2) Distributive function: The budgetary policy also affects the distribution of income in the community. The tax and expenditure measures are adopted to modify the existing distribution with a view to reducing economic inequalities.
- 3) Stabilization function: The budgetary policy can also be used to maintain a high level employments reasonable degree of price level stability, an appropriate rate of economic growth and stability in the balance of payment.

Apart from these, public finance is important because it is an effective instrument of state control over the economy. The study of public finance is especially important for the under developed countries as management of state finances is essential to break the vicious circle of poverty.

Lecture No.24

Public revenue – meaning, major and minor sources of public revenue

PUBLIC REVENUE

The expenditure of the Government has to be met from the revenue that is accrued by the Government from various sources.

Sources of revenue

The functions of Government are very important and extensive which require heavy expenditure. Government has to undertake important functions like defense (internal and external), Social welfare, education, health, industry, agriculture. For all of these a huge amount of funds is required.

The major sources of revenue for the Government are in the form of Taxes and Prices while the minor sources are Fees, Special assessment, Escheat, Grants, gifts donations, tributes and indemnities.

Major Sources:

1. Tax: A compulsory contribution imposed on the public. (Details discussed in the next chapter)
2. Price: A price is the payment for a service of business character, for example, charges for travelling on railways. The price is different from fee. The fee is for public interest. You can escape a price by not purchasing the said service / commodity.

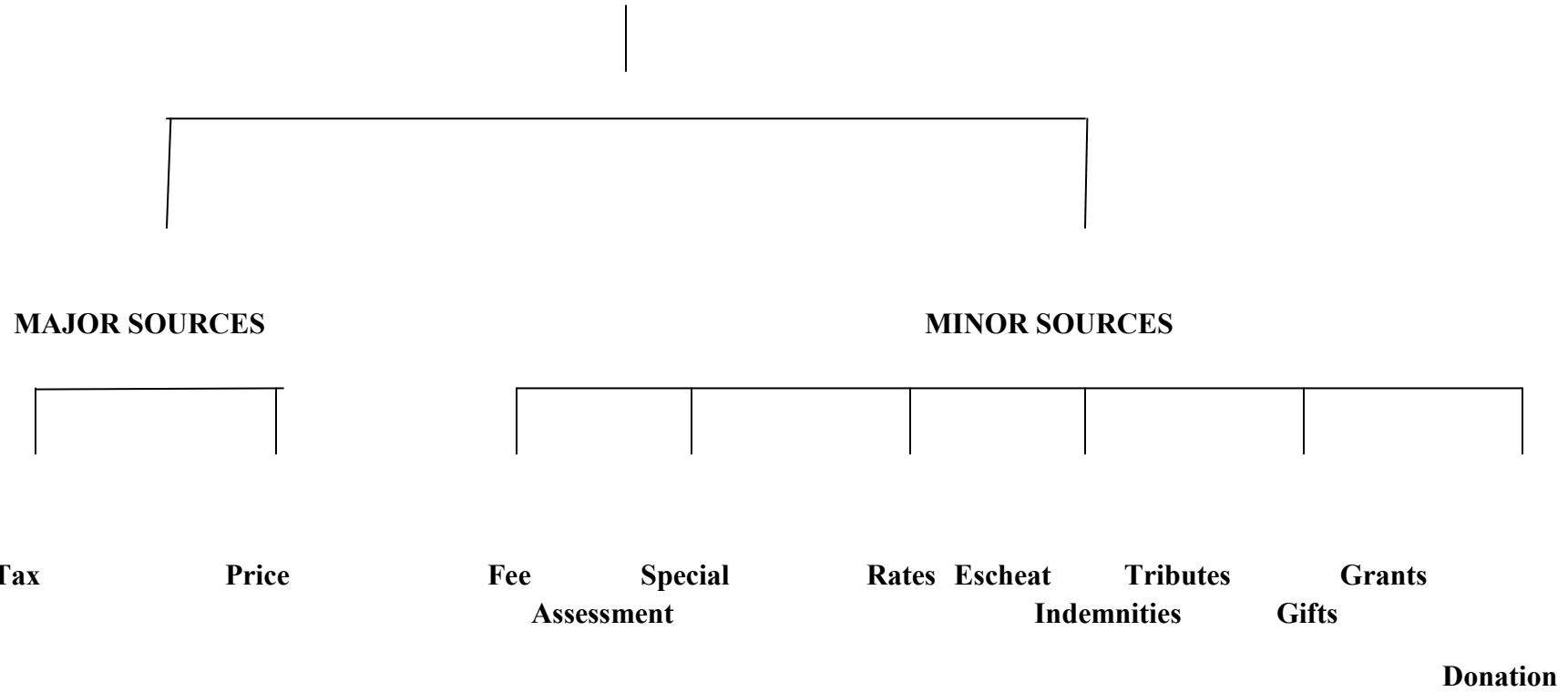
Minor Sources:

1. Fee: It is also a compulsory payment but made only by those who obtain a definite service in return from the government. The fee covers the part of the cost of service provided to the consumer / client. The licence fee, however, is much more than the cost of service and there is not much of a positive service in return.
2. Special Assessment: This is a compulsory contribution, levied in proportion to the special benefit derived, to defray the cost of a specific improvement to property undertaken in the public interest. Suppose the government build a road or bridge or provide mass transport system or makes suitable sewerage and water supply arrangements, all the property will appreciate in value. The State has the right to levy a special tax on the owners of land or property known as 'special assessment'.
3. Rates: They are levied by the local bodies, municipalities and district boards for local purposes. They are generally levied on immovable property of the residents, but not necessarily for any special improvements effected or special benefits conferred.
4. Escheat: It refers to the property that is claimed by Government of the deceased without successors or will.
5. Tributes and indemnities: Tributes are paid by the conquered countries. Indemnities are paid for any damage done to the country by way of war of aggression.

6. Grants, gifts and donations: Grants are the funds provided by the apex organizations to its sub-ordinate organizations. For Example: ICAR grants to SAU's. Gifts are those funds granted by the foreign countries during natural calamities etc., Donations are for specific purposes like educational buidings etc., funded by individuals.

SOURCES OF PUBLIC REVENUE

PUBLIC REVENUE



Lecture No.25

Tax – meaning, classification – direct and indirect taxes, methods of taxation - proportional, progressive, regressive and degressive taxation, Agril taxation – other types of taxation, VAT.

Seligman defines tax as a compulsory contribution from a person to the state to defray the expenses incurred in the common interest of all, without reference to special benefit conferred.

METHODS OF TAXATION

1. Proportional & Progressive Tax: A proportional tax is one in which, whatever the size of income, same rate or percentage of tax is charged.

On the contrary, progressive tax refers to the tax system in which the rate of tax increases with the increase in income. It is based on the principle 'higher the income, higher the tax'.

2. Regressive & Degressive Tax: A tax is said to be regressive when its burden falls more heavily on low-income earners / poor than the high-income earners / rich. It is opposite of progressive tax.

A tax is called degressive when the higher income does not make a due sacrifice, or when the burden imposed on them is relatively less. This tax may be progressive up to a certain limit beyond which a uniform rate is charged.

CLASSIFICATION OF TAXES:

Specific Tax, Advolarem Tax & VAT: A specific tax is according to the weight of the commodity. An advolarem tax is according to the value of a commodity. Value Added Tax(VAT) is levied on businessmen on all the processes carried out by them.

Direct & Indirect Tax: Direct tax is one which is paid by the person on whom it is charged. The examples of direct taxes are income tax, wealth tax, etc.

On the contrary, the indirect tax is paid by one person and its burden is fallen on other, generally the consumer. The examples of indirect taxes are sales tax, central excise duty, custom duty, recreational tax, etc.

Agricultural Income :Agriculture income is exempt under the Indian Income Tax Act. This means that income earned from agricultural operations is not taxed. The reason for exemption of agriculture income from Central Taxation is that the Constitution gives exclusive power to make laws with respect to taxes on agricultural income to the State Legislature. However while computing tax on non-agricultural income agricultural income is also taken into consideration.

As per Income Tax Act income earned from any of the under given four sources meant Agricultural Income;

- (i) Any rent received from land which is used for agricultural purpose:
- (ii) Any income derived from such land by agricultural operations including processing of agricultural produce, raised or received as rent in kind so as to render it fit for the market, or sale of such produce.
- (iii) Income attributable to a farm house
- (iv) Income earned from carrying nursery operations is also considered as agricultural income and hence exempt from income tax.

Lecture No.26

Canons of Taxation – Adam Smith’s canons of taxation – equality, economy, certainty and convenience – other canons of taxation

CANONS OF TAXATION

Adam Smith’s was a pioneer in the field of taxation and made notable contributions popularly known as Canons of taxation.

1. Canon of Equality: means the principle of justice, i.e., in accordance to ‘ability to pay’. It means the equality of sacrifice. The amount of the tax paid is to be in proportion to the respective abilities of the taxpayers. For example: Progressive taxation.
2. Canon of Sacrifice: The principle states that tax amount should be in proportion to the respective abilities of the tax payer. The abilities represents the various income levels.
3. Canon of Certainty: prescribes that the tax which each individual is bound to pay ought to be certain, and not arbitrary. The time of payment, the manner of payment, the quantity to be paid, ought to be clear and simple to the taxpayer. Uncertainty in taxation encourages insolence or corruption.
4. Canon of Convenience: The tax is to be levied at the time or the manner in which it is most convenient for the taxpayers to pay their dues. For example, Cess has to be collected from the farmers after the principal crops are harvested and marketed.
5. Canon of Economy: It means that the tax will be economical only when the cost of collection is small. Huge and unnecessary administrative costs will make the tax collection an extravagant task.

Other Canons of Taxation

1. Fiscal Adequacy or Productivity: The State should meet its expenditure from the revenue raised from the people in the form of taxes. However, the government should not hamper the productive capacity by taxing the community heavily.
2. Canon of Elasticity: The revenue should increase to cater the needs of the State. This is to ensure the government adequate financial resources to meet an emergency situation.
3. Canon of Flexibility: It means that there should be no rigidity in the tax system so that it can be quickly adjusted to new conditions.
4. Canon of Simplicity: This aims at tax which is simple, plain and intelligible to the common understanding. This canon is essential if corruption or oppression is to be avoided.
5. Canon of Diversity: The tax should be a wise admixture of direct and indirect taxes. On the other hand, too great multiplicity will be bad and uneconomical.

6. Social and Economic Objectives: This states that the social and economic objectives of a standard tax system viz., (i) Reduction of inequalities in the distribution of income and wealth, (ii) Accelerating economic growth and (iii) Price stability

7. Canon of Neutrality: Taxation system should be used to control threats of economic instability and stagnation.

Lecture No.27 &28

Public expenditure – meaning, need for public expenditure. principles of public expenditure

PUBLIC EXPENDITURE

Public Expenditure aids in employment creation through public works programme thus raising the level of income and employment. It helps in toning down the inequalities of income and wealth distribution in the country.

Need for Public Expenditure

1. Social and Economic Overheads: Economic overheads like roads and railways, irrigation and power projects are essential for speeding-up economic development. Social overheads like hospitals, schools, and colleges and technical institutions are essential. Public expenditure has to build up the economic and social overheads.

2. Balanced Regional Growth: Special attention has to be paid to the development of backward areas and under-developed regions to facilitate balanced regional growth. This requires huge amounts for which reliance has to be placed on public expenditure.

3. Development of Agriculture and Industry: Economic development is regarded synonymous with industrial development but agricultural development provides the base and has to be given the priority. Government has to incur lot of expenditure in the agricultural sector, For example: Irrigation and power, seed farms, fertilisers factories, warehouses, etc., and in the industrial sector by setting up public enterprises like the steel plants, heavy electrical, heavy engineering, machine-making factories, etc. All these enterprises are calculated to promote economic development.

4. Exploitation and Development of Mineral Resources: Minerals provide a base for further economic development. The government has to undertake schemes of exploration and development of essential minerals, For example:, gas, petroleum, coal, etc. Public expenditure has to play its pivotal role in the exploration and development of mineral resources.

5. Subsidies and Grants to Provinces, Local Governments, and Exporters: The central government gives grants to State governments which inturn directs to local governments to induce them to incur some desirable expenditure. Subsidies have also to be given to encourage the production of certain goods especially for export to earn much needed foreign exchange.

PRINCIPLES OF PUBLIC EXPENDITURE

The Principles of Public Expenditure *are*

1. Principle of maximum social benefits
2. Principle of economy, i.e., wasteful expenditure should be avoided
3. Principle of sanction, i.e., authorized expenditure
4. Principle of balanced budget
5. Canon of elasticity, i.e., fairly flexible
6. Avoidance of unhealthy effects on production and distribution

1. Principle of Maximum Social Benefits: According to Dalton, the best system of public expenditure is that which secures the maximum social advantage from the operations which it conducts.

2. Principle of Economy: It means that extravagance and waste of all types should be avoided. Public expenditure has great potentiality for public good but it may also prove injurious and wasteful. If the revenue collected from the taxpayer is heedlessly spent, it would be obviously uneconomical.

To satisfy the principle of economy, it will be necessary to avoid all duplication of expenditure and overlapping of authorities. Further, public expenditure should not adversely affect saving. In case government activity damaged the individual's will or power to save, it would be repugnant to the canon of economy.

3. Principle of Sanction: Another important principle of public expenditure is that before it is actually incurred, it should be sanctioned by a competent authority. Unauthorised spending is bound to lead to extravagance and over-spending. It also means that the amount must be spent on the purpose for which it was sanctioned.

4. Principle of Balanced Budget: Every government must try to keep its budgets well balanced. There should be neither ever-recurring surpluses nor deficits in the budgets. The government, therefore, must try to live within its own means.

5. Principle of Elasticity: Another same principle of public expenditure is that it should be fairly elastic. It should be possible for public authorities to vary the expenditure according to the needs. A fair degree of elasticity is essential if financial breakdown is to be avoided.

6. Avoidance of Unhealthy Effects on Production or Distribution: It is also necessary to see that public expenditure exercises a healthy influence both on production and

distribution of wealth in the community. It should stimulate productive activity so that the volume of production in the country increases and it may be possible to raise the standard of living. The wealth should be fairly distributed.

Lecture No. 29 & 30

Inflation – meaning, definition, types of inflation - demand pull and cost push

inflation- comprehensive and sporadic inflation – suppressed and repressed

inflation – creeping, walking, running and galloping inflation – mark up inflation

Related concepts of inflation, Rate of inflation

INFLATION

Inflation indicates the rise in price of a basket of commodities on a point-to-point basis. It basically suggests an increase in the cost of living over a period of time, For example: 10 essential commodities on 1 st January 2009 for Rs. 100; and the same set of 10 commodities costs Rs. 105 on January 1, 2010; the difference in the price is the inflation rate, that is 5 percent. It means that prices are rising at 5 percent per annum. “Too much money chasing too few commodities” is termed as Inflation.

Inflation may be defined as a persistent and appreciable rise in the general price level. Inflation is statistically measured in terms of percentage increase in the price index over a period of time usually a year or a month.

Related concepts of inflation

1. **Deflation** : A general decline in prices, often caused by a reduction in the supply of money or credit. Deflation can be caused also by a decrease in government, personal or investment spending. The opposite of inflation, deflation has the side effect of increased unemployment since there is a lower level of demand in the economy, which can lead to an economic depression.
2. **Disinflation**: A slowing in the rate of price inflation. Disinflation is used to describe instances when the inflation rate has reduced marginally over the short term. Although it is used to describe periods of slowing inflation, disinflation should not be confused with deflation.
3. **Stagflation** : A condition of slow economic growth and relatively high unemployment - a time of stagnation - accompanied by a rise in prices, or inflation.
4. **Reflation** : A fiscal or monetary policy, designed to expand a country's output and curb the effects of deflation. Reflation policies can include reducing taxes, changing the money supply and lowering interest rates.

Types/ Classification of Inflation

There are several types of inflation in the economy which are classified on different basis. Some of the important types of inflation are discussed below.

1. **Creeping Inflation:** When the rise in prices is very slow (less than 3% per annum) like that of a snail or creeper, it is called creeping inflation. Such an increase in prices is regarded safe and essential for economic growth.
2. **Walking or Trotting Inflation:** When prices rise moderately and the annual inflation rate is a single digit (3% - 10%), it is called walking or trotting inflation. Inflation at this rate is a warning signal for the government to control it before it turns into running inflation.
3. **Running Inflation:** When prices rise rapidly like the running of a horse at a rate of speed of 10% - 20% per annum, it is called running inflation. Its control requires strong monetary and fiscal measures, otherwise it leads to hyperinflation.
4. **Galloping or Hyperinflation:** When prices rises between 20% to 100% per annum or even more, it is called galloping or hyperinflation. Such a situation brings a total collapse of the monetary system because of the continuous fall in the purchasing power of money.
5. **Open inflation:** In open inflation, free market mechanism is permitted to fulfill its historic function of rationing the short supply of goods and distribute them according to consumer's ability to pay.
6. **Repressed inflation :** When the government interrupts a price rise, there is repressed or suppressed inflation. Thus, suppressed inflation refers to those conditions in which price increase are prevented at the present time though adoption of certain measures like price control and rationing by the government, but they rise in future on the removal of such controls and rationing.
7. **Mark-up Inflation:** This type of inflation resulted from the peculiar method of pricing adopted by the big business organizations. According to this method, the big business organizations calculate their production costs first and then add to these costs a certain mark-up to yield the targeted rate of profit.
8. **Comprehensive inflation :** When prices of every commodity throughout the economy rise, it is called economy-wide or comprehensive inflation. It is a normal inflationary phenomenon and refers to the rising prices of the general price level.
9. **Sporadic inflation :** This is a kind of sectional inflation; it consists of cases in which the averages of a group of prices rise because of increase in individual prices due to abnormal shortage of specific goods. When the supply of some goods becomes inelastic, at least temporarily, due to the physical or structural constraints, the sporadic inflation has its way.
10. **Profit induced Inflation:** During inflation, the entrepreneur class may tend to expect an upward shifting of the marginal efficiency of capital (MEC); hence, entrepreneurs are induced to invest more even by borrowing at higher interest rates. Eventually, investment exceeds savings and economy tends to reach a higher level of money income equilibrium. If economy is operating at full employment level or if there are bottlenecks of market imperfections, real output will not rise proportionately, so the imbalance between money income and real income is corrected through rising prices.

11. Demand-pull Inflation: At the full-employment output, aggregate demand may be greater than aggregate supply, an inflationary gap exists at full-employment level with the price level bid up.
12. Cost-push Inflation: It is caused by an autonomous rise in money wages or other input prices. If producers response by raising prices, it becomes a wage-price spiral.
13. Demand-shift Inflation: Aggregate demand often changes faster than the change on resource allocation. Whenever demand changes, the changes in output may not catch up with the change in demand, the excess demand may lead to inflation, at least in the short run.

Measurement of Inflation

Inflation in India is calculated considering various price index tools.

A price index is a normalized average (typically a weighted average) of prices for a given class of goods or services in a given region, during a given interval of time.

Some notable price indices include Consumer price index, wholesale price index Producer price index and GDP deflator.

Rate of inflation: It is defined as the rate of change of the price level as measured by the Consumer price index

$$\text{Rate of inflation in } t^{\text{th}} \text{ period} = \frac{\text{Price level } (t^{\text{th}} \text{ year}) - \text{Price level } (t - 1^{\text{th}} \text{ year})}{\text{Price level } (t - 1^{\text{th}} \text{ year})} \times 100$$

Consumer Price Index (CPI)

Consumer Price Index measures the cost of a fixed basket of products and services. It is a weighted average measure of changes in price of products or services within the basket. The consumer price index is also known as cost-of-living index.

The consumer price basket includes transportation, food and medical care. Large rises in CPI in a short time typically denotes a period of inflation.

$$\text{C P I} (\text{Cost of the bundle in a given period} / \text{Cost of the bundle in the base year}) \times 100$$

Wholesale Price Index (WPI) or Producer Price Index (PPI)

Wholesale price is the price of representative basket of wholesale goods. Wholesale price index concentrates on price of goods that are transported within corporates rather than consumers. The changes in WPI indicate the price changes in industry which will in turn represent the changes in supply and demand.

Let's calculate the WPI for the year 2009 for a particular commodity. Let's assume that price of a kilogram of wheat in 1993 is Rs 15.00 and in 2009 it is Rs 18.00. The WPI of wheat for the year 2006 is

$(\text{Price of Wheat in 2009} - \text{Price of Wheat in 1993}) / \text{Price of Wheat in 1993} \times 100$

i.e. $((18 - 15)/15) \times 100 = 20$.

Since WPI for the base year is assumed to be 100, WPI for 2009 will be $100 + 20 = 120$.

Calculation of Inflation from WPI

The WPI values at two time zones are considered, say, beginning and end of year, the inflation rate of the year can be calculated as

$(\text{WPI of end of year} - \text{WPI of beginning of year}) / \text{WPI of beginning of year} \times 100$.

The GDP or GNP Deflator

It is an index of the prices of all final goods and services constituted the GDP or GNP.

$\text{GDP Deflator} = (\text{Nominal GDP} / \text{Real GDP}) \times 100$

Food inflation

The food price inflation in the country can be attributed to low growth in food grain production, low competition and poor integration of supply over time and space. The remedial measures therefore include increase in domestic production and imports, and promote competition in food markets.

Lecture No.31 &32

Causes of inflation – Remedial measures – monetary – fiscal measures.

Causes of Inflation – Remedial measures

Broadly speaking inflation arises when the aggregate demand exceeds the aggregate supply of goods and services. The factors which lead to increase in demand and the shortage of supply are discussed.

Factors Causing Increase in Demand:

1. Increase in Money Supply: Inflation is caused by an increase in the supply of money which leads to increase in aggregate demand. The higher the growth rate of nominal money supply, the higher is the rate of inflation.
2. Increase in Disposable Income: When the disposable income of the people increases, it raises their demand for goods and services. Disposable income may increase with the rise in national income or reduction in taxes or reduction in the saving of the people.
3. Increase in Public Expenditure: In modern world government activities have been expanding which resulted in increase government expenditure. This raised the aggregate demand for goods and services, thereby causing inflation.
4. Increase in Consumer Spending: The demand for goods and services also increases when consumer spending increases due to conspicuous consumption or demonstration effect.
5. Cheap Monetary Policy: Cheap monetary policy or the policy of credit expansion also leads to increase in the money supply which raises the demand for goods and services in the economy thereby leading to inflation. This is also known as credit-induced inflation.
6. Deficit Financing: In order to meet its mounting expenses, the government resorts to deficit financing by borrowing from the public and even by printing more notes. This raises aggregate demand in relation to aggregate supply, thereby leading to inflationary rise in prices.
7. Increase in Exports: When the demand for domestically produced goods increases in foreign countries, this raises the earnings of industries producing export commodities. These, in turn, create more demand for goods and services within the economy.

Apart from the above factors, expansion of the private sector, existence of black money and the repayment of public debt by the government also increases the aggregate demand for goods and services in the economy.

Factors Causing Shortage of Supply: Following are the factors which result in a reduction in the supply of goods and services:

1. Shortage of factors of production: When there is shortage of factors of production like labour, capital, raw materials, etc. there is bound to be reduction in the production of goods and services.
2. Industrial Disputes: In countries where trade unions are powerful, they resort to strikes and lock-outs which resulted in a fall in industrial production thereby reducing the supply of goods.
3. Natural Calamities: Natural calamities like droughts, floods, etc. adversely affects the supplies of agricultural products. This creates shortage of food products and raw materials, thereby helping inflationary pressures.
4. Artificial Scarcities: Artificial scarcities are created by hoarders and speculators who indulge in black marketing. Thus, they are instrumental in reducing supplies of goods and raising their prices.
5. Increase in Exports: When the country produces more goods for exports than for domestic consumption, this creates shortages of goods in the domestic market. This leads to inflation in the economy.
6. Lop-sided production: If the stress is on the production of comforts, luxuries, or basic products to the neglect of essential consumer goods in the country this creates shortages of consumer goods. This again causes inflation.
7. Law of Diminishing Returns: If industries in the country are using old machine and outmoded methods of production, the law of diminishing returns operates. This raises cost per unit of production, thereby raising the prices of products.
8. International Factors: In modern times, inflation is a worldwide phenomenon. When prices rise in major industrial countries, their effects spread to almost all countries with which they have trade relations. Often the rise in price of a basic raw material like petrol in the international market leads to rise in the price of all related commodities in a country.

Measures to control Inflation

Inflation is caused by the failure of aggregate supply to equal the increase in aggregate demand. The various measures to control inflation are:

Monetary Measures

(a) Credit Control: The central bank could adopt a number of methods to control the quantity and quality of credit to reduce the supply of money. For this purpose, it raises the bank rates, sells securities in the open market, raises reserve ratio, and adopts a number of selective credit control measures, such as raising margin requirements and regulating consumer credit.

(b) Demonetisation of Currency: Another monetary measure is to demonetise currency of higher denominations. Such a measure is usually adopted when there is abundance of black money in the country.

(c) Issue of New Currency: The most extreme monetary measure is the issue of new currency in place of the old currency. Under this system, one new note is exchanged for a number of the old currency. Such a measure is adopted when there is an excessive issue of notes and there is hyperinflation in the economy.

Fiscal Measures

(a) Reduction in Unnecessary Expenditure: The government should reduce unnecessary expenditure on non-development activities in order to curb inflation.

(b) Increase Taxes: To cut personal consumption expenditure, the rates of personal, corporate and commodity taxes should be raised and even new taxes should be levied, but the rates of taxes should not be too high as to discourage saving, investment and production.

(c) Increase in Savings: Another measure is to increase savings on the part of the people so that their disposable income and purchasing power would be reduced. For this the government should encourage savings by giving various incentives.

(d) Surplus Budgets: An important measure is to adopt anti-inflationary budgetary policy. For this purpose, the government should give up deficit financing and instead have surplus budgets. It means collecting more in revenues and spending less.

(e) Public Debt: In addition, the government should stop repayment of public debt and postpone it to some future date till inflationary pressures are controlled. Instead, the government should borrow more to reduce money supply with the public.

Other measures to control inflation generally aims at increasing aggregate supply and reducing aggregate demand directly. These are :-

(a) Increase production.

(b) Rational Wage Policy:

(c) Price Control: Price control and rationing is another measure of direct control to check inflation. Price control means fixing an upper limit for the prices of essential consumer goods.

(d) Rationing:

(e). Enhance imports

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