

## UNIT – I

### 1. INTRODUCTION:

Economics is a popular, useful and significant social science. Economics is about economizing; that is, about choice among alternative uses of scarce resources. Choices are made by millions of individuals, businesses, and government units. Economics examines how these choices add up to an economic system, and how this system operates (L.G. Reynolds).

Scarcity is central to economic theory. Economic analysis is fundamentally about the maximization of something (leisure time, wealth, health, happiness-all commonly reduced to the concept of utility) subject to constraints. These constraints or scarcity inevitably define a tradeoff. For example, one can have more money by working harder, but less time (there are only so many hours in a day, so time is scarce). One can have more apples only at the expense of, say, fewer grapes (you only have so much land on which to grow food-land is scarce). In short, Economics is the study of those activities of human beings, which are concerned, with the satisfaction of man's unlimited wants by utilizing the usually limited resources.

In this lesson we shall first focus on definitions of economics. We shall also discuss definitions of economics centered on wealth, welfare, scarcity, and growth.

### 1.2 ECONOMICS: AN INTRODUCTION:

The term '*Economics*' is derived from two words of Greek language, namely, *Oikos* (household) and *Nemein* (to manage), meaning thereby *household management*.

Earlier, it used to be called as Political Economy. The early writers used the term "Political Economy" for the management of the State. A person who runs a family is expected to make the best use of the income of the household. Similarly, the State is expected to get the maximum benefit for the society. Hence, the term is "Political Economy". In fact, Indian scholar and philosopher, *Chanakya (Kautilya)* in his famous book '*Arth-Shastra*' has examined both kinds of activities, i.e. economics and political. Greek philosopher *Aristotle* had used the term economics to mean the management of '*family and the state*'.

Dr. Marshall was the first to use the term 'economics' in 1890 in his famous work "*Principles of Economics*".

Economics is barely 200 year old. *Adam Smith*, the *Founder of Modern Economics*, shaped the form in which we study Economics today. His famous book “*An Enquiry into the Nature and Causes of Wealth of Nations*”, published in 1776, is still acclaimed even today.

Till the end of 18<sup>th</sup> and the mid of the 19<sup>th</sup> century (1776 – 1850), several great Economists like *Ricardo*, *Malthus*, *J. B. Say*, etc., had fully supported the thoughts of *Adam Smith*. These economists are known as classical economists. From the middle of 19<sup>th</sup> century to the first three decades of the 20<sup>th</sup> century (1850-1930) economists like *Menger*, *Walras*, *Cournot*, *Marshall*, *Pigou*, etc., had made significant contributions to the development of the study of Economics. In 1933, Prof. *Ragnar Frisch*, a famous economist of Oslo University, Norway, divided the study of economics into two parts:

- i) Micro Economics, and
- ii) Macro Economics

### **1.2.1 DEFINING ECONOMICS:**

It is difficult to give an accurate definition of economics. A good definition delimits boundaries of the subject clearly and correctly. And there are plenty of definitions of Economics. In this respect, *Barbara Wooten* once remarked, “*Whenever six economists gather there are seven opinions.*” This remark appears to be quite pertinent.

It is worth mentioning here that many definitions of Economics are still being developed even today. In this regard *Zuethen* once said, “*Economics is an unfinished science.*”

Scope of economics has not as yet been delimited. It has constantly been growing and developing. There are two distinct approaches of the economists in respect of the definition of economics:

- One school of thought says that there is no need of defining Economics.
- Another school of thought emphasizes the necessity of defining Economics.

According to some modern economists, the subject of economics has been growing continuously. It will, therefore, be improper to limit its growth to the confines of a given definition. There is no need of defining it.

According to *Gunnar Myrdal*, “*Such definitions are both unnecessary and undesirable.*”

*Jacob Viner* says, “*Economics is what economists do.*”

*Mark Kasson* observes, “*Economics is what economists disagree about.*”

In the words of *Von Mises*, “*It is illegitimate to regard economics as definite sphere of human action.*”

However, many of economists agree with the view that defining Economics is a must. *Eric Roll* is of the view that for a scientific study of a subject, knowledge of its definition is as much essential as the knowledge of the boundaries of a farm to be cultivated. By giving a precise definition of Economics, it becomes possible to study it scientifically and properly.

But there are so many definitions of Economics that *J. N. Keynes* was obliged to remark, “*Economics is said to have strangled itself with definitions.*”

In order to facilitate their study, definitions of Economics have been broadly divided into four parts:

<i>Wealth Definition</i>	<i>Adam Smith</i>
<i>Welfare Definition</i>	<i>Marshall</i>
<i>Scarcity Definition</i>	<i>Robbins</i>
<i>Growth Oriented Definition</i>	<i>Samuelson</i>

### **1.2.2 WEALTH-CENTERED DEFINITIONS OF ECONOMICS:**

According to classical Economists like *Adam Smith*, *J. B. Saw*, *Walker*, *J. S. Mill*, etc.; Economics is a subject that studies nature of wealth and its production, consumption, exchange and distribution, etc.

#### **WEALTH - CENTERED DEFINITIONS OF ECONOMICS:**

*Adam Smith*: “*Economics is an enquiry into the nature and cause of wealth of nations.*”

*J. B. Saw*: “*Economics is the science which deals with wealth.*”

*Walker*: “*Economics is the body of knowledge which relates to wealth.*”

*Senior*: “*The subject treated by political economics is not happiness but wealth.*”

*J. S. Mill*: “*Economics is the practical science of production of wealth.*”

The main merit of wealth-related definitions of Economics is that it has helped develop Economics as an extensive and independent study concerning problems of wealth. Economics had not developed as an independent and important study before the publication in 1776 of the famous book of *Adam Smith* titled “*An Enquiry into the Nature and Causes of Wealth of Nations*”. Previously, Economics used to be treated as a study dealing with trade and agricultural activities, and the activities of the state.

### **1.2.3 MATERIAL-CENTERED DEFINITIONS OF ECONOMICS:**

Neo-classical economists like *Marshall, J. S. Mill, Pigou, and Cannan*, etc., have included in the scope of economics those activities of man, which are undertaken to acquire material goods that promote the welfare of mankind. In the words of *Roscher*, “*The starting point and goal of our science is man*”.

### **MATERIAL-CENTERED DEFINITIONS OF ECONOMICS:**

Main material-related definitions of Economics are as follows:

In the words of *Marshall*: “*Economics is 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 material requisites of well being*”.

Welfare-related definitions of Economics are more relevant, comprehensive and scientific than wealth-related definitions. Welfare-related definitions stress the fact that Economics does not study wealth alone rather it studies human welfare as well. Thus, welfare-related definitions have accorded Economics a status of a *superior social science*. Consequently, Economics is regarded as an “*Engine of Social Betterment*”.

### **1.2.4 SCARCITY-CENTERED DEFINITIONS OF ECONOMICS:**

Austrian economists *Menger* and *Petter*, and English economist *Stigler* had given scarcity-related definitions of Economics but it was examined in detail by *Prof. Robbins* in his book “*An Essay on the Nature and Significance of Economic Science*”, published in 1932.

#### ***Scarcity-Centered Definitions of Economics:***

According to *Lord Robbins*: “*Economics is a science that studies human behaviour as a relationship between ends and scarce means which have alternative uses.*”

### **1.2.5 GROWTH-CENTERED DEFINITIONS OF ECONOMICS:**

In the words of noble 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 resource allocation.*”

## WHICH OF THESE DEFINITIONS IS THE BEST?

Different economists have given different definitions of Economics. *Boulding* is of the opinion that any single concise definition of Economics will be inadequate. Of course, to define it as “a study of mankind in the ordinary business of life” is to give a very wide view of economics. If it is defined as a study of “human valuation and choice making” then it will be too wide a definition, and if it is defined as “a study of that part of man’s actions which are measured in terms of money” then it will be too narrow a definition.

According to *Adam Smith*, Economics is a study of wealth. It is a narrow and unscientific definition of Economics as it puts more emphasis on wealth than man. Actually, wealth is simply a means to satisfy man’s wants. *Dr. Marshall* was of the opinion that “it examines that part of individual and social action which is most closely connected with the attainment and with the use of material requisites of well-being”. This definition of Economics is superior to the one given by *Adam Smith*, but this definition does not provide true information with regard to the nature of economic activities.

*Robbins* is of the view that “Economics is a science that studies human behaviour as a relationship between ends and scarce means which have alternative uses.” This definition explains the true nature of economic activities. As such, the definition given by *Lord Robbins* is regarded pertinent and scientific compared to those given by *Adam Smith*, *Marshall*, etc. Consequently, economics has been reduced to a dull and complex subject having little utility for an ordinary man.

All the three main definitions of Economics therefore suffer from one defect or the other. It is by combining all the three that we can construct a more appropriate definition of economics.

Picking up the term ‘**wealth**’ from the definition of *Adam Smith*, ‘**welfare**’ from that of *Marshall*, ‘**scarcity**’ from that of *Robbins* and ‘**economic growth**’ from that of *Samuelson*, an acceptable definition of Economics can be constructed in these words:

*‘Economics is a subject that studies those activities of man which are concerned with the maximum satisfaction of wants or with the promotion of welfare and economic growth by the efficient consumption, production and exchange of scarce means having alternative uses.’*

### 1.3. CONCEPT OF ECONOMICS:

According to *Adam Smith*, *Economics is an enquiry into the nature, and (causes of wealth).*” According to *Lord Robbins*, Economics is related to (i) those efforts of human beings that they undertake (ii) to acquire scarce resources in order to (iii) satisfy their unlimited wants. As a result of these efforts they get economic goods or wealth. When with the help of these goods they satisfy one want, at once, another want crops up.

According to modern economists, like *Samuelson*, *Boulding*, *Luftwitch*, etc., Economic relates to: *Economics activities, Economic system, and Economic policies.* *Marshall* and other neo-classical economists have widened the concept of Economics by including in it the study of those activities of social beings, which are connected, with the material requisites of welfare.

#### 1.3.1 ECONOMIC ACTIVITIES:

The concept of Economics is concerned with the study of economic activities. *Prof. Boulding* has divided economic activities into the following parts:

- *Consumption*
- *Production*
- *Exchange*
- *Product Pricing*
- *Factor Pricing*

**Consumption:** Consumption is that economic activity which is concerned with the use of economic goods and services for the satisfaction of human wants.

**Production:** Production is that activity which is concerned with increasing the utility or value of the goods and services. There are five factors of production:

- *Land,*
- *Labour,*
- *Capital,*
- *Enterprise, and*
- *Organization*

**Exchange:** Activity relating to the buying and selling of a product is a factor of production is called exchange. This buying and selling is mostly done in terms of money. This activity is also called price determination and it is divided into two parts:

*Product Pricing:* It relates to the determination other price other product under different conditions of the market, viz. perfect competition, monopoly and imperfect competition.

*Factor Pricing:* It relates to the determination of the price of different factors of production. Price of land is rent that of labour is wage, that of capital is interest and price for the services of the entrepreneur is profit. This activity is also called 'distribution'.

*Chapman* has rightly said, "*Economics is that branch of knowledge that studies consumption, production, exchange and distribution of wealth.*"

### **Objectives of Economic Activities:**

According to modern economist *Ragnar Frisch*, economic activities have two main objectives:

- *Proper allocation of the resources, and*
- *Efficient use of resources*

The study of economic activities is split up into two parts. Proper allocation of resources is Microeconomics and efficient use of resources is Macroeconomics.

### **MICRO ECONOMICS:**

Micro Economics covers the following:

- *Theory of Demand,*
- *Theory of Production,*
- *Production Function,*
- *Price determination,*
- *Factor pricing or distribution, and*
- *Economic Welfare*

### **MACRO ECONOMICS:**

Macroeconomics is the study of aggregates or average covering the entire economy. It therefore, includes:

- *National income,*
- *Full employment,*
- *Inflation,*
- *International Trade,*
- *Public Finance,*
- *Money and Banking Institutions,*
- *Economic growth,*
- *Trade / Business Cycles*

## **1.3.2 DISTINCTION BETWEEN MICRO AND MACROECONOMICS**

**1. The dimensional difference:** Micro-economics, as seen earlier deals with the analysis of individual behaviour, whereas in macroeconomics we are concerned with the study the economy as a whole.

Thus in Micro-economics we analyse the behaviour of an individual consumer or an individual producer, pricing of product or a factor whereas in Macro-economics we analyse the National output, general level of price etc.

**2. The Methodological difference:** The methodology applied in the study of micro-economics is more ‘individualistic’ in nature; whereas in the study of macro-economics it is more ‘aggregative’ in nature. For instance in Micro-economics we apply the technique of ‘slicing’. Whereas in Macro-economics we resort to the technique of ‘lumping’.

**3. Fields of Enquiry :** Micro-economics is basically concerned with the theory of product and factor-pricing. Whereas Macro-economics is primarily concerned with National Income, problems of growth and economic stability.

**4. Derivation of Economic functions :** The distinction between micro and macro-economics is based on how the economic functions are derived; if from aggregative data, we have macroeconomic function and if the function has been built up from a careful study of individual units, then we have micro- economic function. Thus micro-economics is concerned with the micro variables such as individual demand, individual supply, price of a particular commodity or factor etc. Whereas Macro economics is concerned with macro variables; general price level, national output, aggregate saving, investments and the level of employment for the economy as a whole.

	<b>Micro Economics</b>	<b>Macro Economics</b>
1	<b>Unit of Study:</b> Individual	Aggregate
2	<b>Method:</b> Slicing	Lumping
3	<b>Subject Matter :</b> Study of product and factor pricing etc.	Study of National Income, general level of prices, trade cycle
4	<b>Basis :</b> Based on independence	Based on Interdependence
5	<b>Core of study:</b> Price Theory	Income Theory
6	<b>Advocated by :</b> Alfred Marshall	John Maynard Keynes
7	<b>Vision :</b> Worms eye view : study of a tree	Birds eye view Forest as a whole
8	<b>Approach:</b> Individualistic	Aggregative
9	<b>Quality of Analysis :</b> Simple and easy	Difficult and complicated.



## **COMPLEMENTARITY OF TWO APPROACHES:**

However, these two approaches cannot be insulated from each other in water-tight compartments. The two approaches are essentially complementary in nature. Ignoring one and concentrating attention on the other alone may often lead not only to inadequate or wrong explanation but also to inappropriate or even disastrous remedial measures. The two approaches are, therefore, not in any way mutually exclusive and as such must be properly integrated to secure fruitful results. To quote Paul Samuelson; “There is really no opposition between Micro and Macro-economics. Both are absolutely vital. You are less than half educated if you understand the one while being ignorant of the other”. Modern economic analysis is a combination of micro and macro approaches. Economics is both theoretical and empirical in nature. Micro and Macro-economics are complementary.

### **1.3.3 ECONOMIC SYSTEMS:**

An economic system is a mechanism which deals with the production, distribution and consumption of goods and services in a particular society and comprises of people, institutions and their relationships. It addresses the problems like the allocation or scarcity of resources. Different economic systems adopt different ways to address these questions. In other words, an economic system defines the institutional framework regulating the business and economic environment in a country. On the basis of the organization and institutions relating to economic activities, the economic systems are divided into three parts:

#### **Capitalism / Market Economy:**

This is an economic system which is usually closely related to market economies. In this system people are free to consumer, produce and change the goods. There is no interference of the government in the economic activities of the citizens. People can accumulate private property.

**Example** – USA, Canada

#### **Features:**

The **salient features** of capitalism are:

**1. Right to Private Property:** Individuals have the right to buy and own property. There is no limit and they can own any amount of property. They also have legal rights to use their property in any way they like.

**2. Profit-Motive:** Profit is the only motive for the functioning of capitalism. Production decisions involving high risks are taken by individual only to earn large profits. Hence, profit-motive is the basic force that drives the capitalist economy.

**3. Freedom of Choice:** The question ‘what to produce?’ will be determined by the producers. They have the freedom to decide. The factors of production can also be employed anywhere freely to get due prices for their services. Similarly consumers have the freedom to buy anything they want.

**4. Market Forces:** Market forces like demand, supply and price are the signals to direct the system. Most of the economic activities are centered on price mechanism. Production, consumption and distribution questions are expected to be solved by market forces.

**5. Minimal role of Government:** As most of the basic economic problems are expected to be solved by market forces, the government has minimal role in the economy. Their role will be limited to some important functions. They include regulation of market, defence, foreign policy, currency, etc.

#### **Socialism / Planned economy / Command economy:**

It is an economic system in which government controls all or most of the factors of production and makes all or most of the production decisions. Command economy exists when the government uses central planning to allocate resources and determine output among various segments of the economy. Under this economic system, activities like consumption, production, exchange etc. are fully under the control of the government. People cannot keep private property. A command economy essentially means a strong government control over the economy on the premise that individual’s wishes are secondary, while the best interests of the society are of prime importance and some level of shared minimum standards are attained in such economies. A command economy also denotes a communistic form of totalitarianism which is on the basis of the political and economic control of the whole country. **Example** – Cuba, Vietnam, China, N. Korea.

#### **Features:**

The **salient features** of capitalism are:

**1. Social Welfare Motive:** In socialist economies, social or collective welfare will be the prime motive. Unlike capitalism, profit will not be the aim of policy making. The decisions will be

taken keeping the maximum welfare of the people in mind. Thus social well-being of people will be the purpose of development.

**2. Limited Right to Private Property:** The right to private property is limited. All properties of the country will be owned by the State. That is, the ownership is collective in nature. Hence no individual can accumulate too much property as in the case of capitalism.

**3. Central Planning:** Most of the economic policy decisions will be taken by a centralized planning authority. Each and every sector of the economy will be directed by well designed planning.

**4. No Market Forces:** In a centralized planned system of development, market forces have only a limited role to play. Production, commodity and factor prices, consumption and distribution will be governed by development planning with welfare motive.

#### **Mixed Economy:**

Mixed economy is followed by socialist countries where equal importance is given to both public and private sectors. Under this system some economic activities are controlled by the government while other are managed by the people as they wish. All economists agree that a mixed economy must be adapted for the benefit of the vast majority of the people rather than for a small aristocratic or capitalist class. Today, in the world where many countries offer a broader electoral franchise, open support to the wealthy would be equivalent to political suicide. Therefore, most ideologies claim to support the interest of the greatest number, something that was once advocated by socialists.

Mixed economies entail democratic control of the economy, though they differ over issues like the extent to which an economy could involve markets and whether control should be centralized or extensively dispersed. **Example** – India, Poland

#### **Features:**

The **salient features** of capitalism are:

**1. Co-existence of Public and Private Sectors:** In a mixed economy, both the public and the private sectors initiatives will be there. The most strategically and nationally important sectors of the economy will be reserved for the public sector. The rest will be left for private operation. While the public sector will have social welfare as the prime motive, the private sector will function with profit motive.

**2. Consolidation of merits of Capitalism and Socialism:** As seen above, both capitalism and socialism have merits and demerits. Mixed economy is expected to retain only the merits of the two systems. For instance, the government is expected to allow private investment, but the government also controls monopolies.

**3. Planning:** Economic planning is another important feature of the mixed economy. Planning will direct the relative roles of public and private sectors and their respective jurisdictions.

#### **1.3.4 ECONOMICS POLICIES:**

As a result of the operation of economic systems there arise several economic problems like: unemployment, price rise, poverty, depression, etc. In order to tackle these problems, study of economics examines such policies as:

- *Monetary policy,*
- *Fiscal Policy,*
- *Price Policy,*
- *Economic planning, and*
- *International Liquidity*

In short, *Anatol Murad* says, “The Economics is the description of the nature and behaviour of an economy or of an economic system and investigation of economic problems with the object offering solutions.”

#### **1.4 ECONOMICS AS A SCIENCE:**

In the words of *Samuelson*, “*Economics is the oldest of the art, the newest of sciences, indeed the queen of all the social sciences.*”

The term ‘science’ means ‘to know’. Knowing a subject means understanding it and being able to explain its causes and effects. “*Science is a systematic body of knowledge concerning the relationship between causes and effects of a particular phenomenon*”. In science, we collect, classify and analyses the facts systematically. In Economics also we have to accumulate, classify and analyses economic facts systematically.

**Characteristics of Science:** Renowned philosopher *Bacon* had pointed out four main characteristics of science:

- *Observation of facts,*
- *Measurement,*

- *Explanation, and*
- *Verification.*

Detailed study of these facts can prove that economics is a science.

***Observing and Collecting facts:*** To begin with, facts relating to a subject are observed. In economics, facts relating to economic activities are observed. For example, an economist observes that when price rise, ordinarily demand contracts. When a consumer buys large quantity of a commodity then its utility diminishes. In this way, the economists collect facts pertaining to economic activities.

***Measurement:*** Facts are subjected to measurement in science. For this purpose, facts are properly classified and presented. In Economics also, facts are measured. An economist will try to measure how much demand has fallen as a result of a given rise in price. If there is unemployment in the country, what is the number of unemployed? At which rate the national income of the country is growing? With a view to measuring these facts the economist seeks the help of mathematics, statistics and econometrics.

***Explanation:*** After observing, compiling and measuring the facts, these are explained in a systematic manner. In Economic, laws are framed by establishing a relationship between the cause and effect of a fact. For example, the *Law of Demand* is formulated in Economics on the basis of the study of the relationship between change in price (cause) and the change in demand (effect).

***Verification or Validity of Laws:*** The final feature of science is that by applying the scientific laws to real life it is verified whether the same are valid or not. For this purpose experiments are also conducted. Validity of laws of Economics is also subjected to verification. For instance, many laws of Economics, such as, the Law of Diminishing Returns, Law of Diminishing Marginal Utility, etc., are treated as valid because they apply to the real situations in life.

It is evident from the above that Economics is a science. But some scholars do not agree with this view. They maintain that laws of Economics are not as exact and universal as the laws of physics and chemistry, etc. In reality their disagreement is not justified.

### **Arguments in favour of Economics being a Social Science:**

Following arguments are given in favour of economics being a social science:

**Systematic Study:** Economics is concerned with the study of one subject alone, that is, the study of inter-related activities like consumption, exchange of wealth, production, etc., concerning with economic activities are complied and observed. The same are classified and measured.

**Validity of Laws:** Every science verifies the validity of its laws. If a law is based on real assumptions or its predictions come true, then it is regarded valid. Many laws of Economics like Law of Diminishing Returns, Law of Diminishing Marginal Utility are based on real experiences of life and are treated valid. It is therefore, evident that economics is a social science. It is a systematic study of the economic activities of the human beings based on scientific practices.

### **Arguments against Economics being a Natural Science:**

Those who hold that Economics is not a science actually mean to say that it is not as exact a science as a natural science is. They advance the following arguments against Economics being a natural science:

**Exact Laws:** Laws of natural sciences are almost always perfect and exact. On the other hand, laws of Economics are not exactly perfect. They are mere statements of tendencies. The Law of Demand will be valid only if there is no change in the income, fashion, etc., of the consumer.

**Universal Laws:** Laws of natural sciences are universal applicable. They hold good at all times and at all places. Economics laws are far from being universal. They are not applicable at all times and at every place. They are liable to change as they deal with human beings.

**Verification of Truth:** Natural scientists can verify the truth of the laws pertaining to their science in the laboratories through experiments. They can also make correct predictions on the basis of these laws. Economics has no laboratory to verify the correctness of its laws. The *measuring-rod of money* is the only apparatus available to it to measure economic activities but it is not exact. The value of money itself goes on changing, as such, it cannot be a dependable measure.

In short, it can be maintained that economics is not a natural science. It is a social science.

### **1.4.1 Is Economics only a Positive or Normative Science?**

As social scientists, economists seek to discover how the economic world works. In pursuit of this goal, like all scientists, economists distinguish between positive and normative statements.

But, whether economics is only a positive science or a normative science, economists are not

unanimous in this respect. According to *Robbins, Friedman* etc. economics is only a positive science. On the other hand, *Marshall, Pigou, Hawtrey* etc. are of the opinion that it is both a positive and normative science.

Economics is a positive Science Positive science is that science which studies an accurate and true description of event as they happen. In the words of R.T. Bye, “Positive science confines itself to accurate description of phenomena, it explains what is, how it works and what are its effects. According to J.N. Keynes, “Positive Science may be defined as a body of systematized knowledge concerning, what is?” Positive science confines itself to the study of: what, how and why. Its study does not tell what ought to be. Positive science has no place for any kind of suggestions.

Eminent classical economists like Senior and modern economists like Milton Friedman, Lord Robbins etc. are of the opinion that economics is only a positive science. It studies the following:

- *What is?*
- *What was? and*
- *What will be?*

Study of economics explains what the rate of wage is, how is it determined? It does not explain what ought to be the rate of wage. In the words of Boulding, “The economist studies the choice, he does not judge them.” According to Lord Robbins, “The function of economist is to explore and explain and not to advocate or condemn. Statements relating to positive science are subject to verification.”

## **POSITIVE ECONOMICS**

Positive economics is the study of what and why an economy operates as it does. It is also known as **descriptive economics** and is based on facts which can be subjected to scientific analysis in order for them to be accepted. It is based on factual information and uses statistical data, and scientific formula in determining how an economy should be. It deals with the relationship between cause and effect and can be tested.

Positive economic statements are always based on what is actually going on in the economy and they can either be accepted or rejected depending on the facts presented.

## **Unscrambling Cause and Effect**

Economists are particularly interested in positive statements about cause and effect. Are computers getting cheaper because people are buying them in greater quantities? Or are people buying computers in greater quantities because they are getting cheaper? Or is some third factor causing both the price of a computer to fall and the quantity of computers bought to increase? To answer such questions, economists create and test economic models.

An **economic model** is a description of some aspect of the economic world that includes only those features that are needed for the purpose at hand. For example, an economic model of a mobile-phone network might include features such as the prices of calls, the number of mobile phone users and the volume of calls. But the model would ignore mobile-phone colours and ringtones. A model is tested by comparing its predictions with the facts. However, testing an economic model is difficult because we observe the outcomes of the simultaneous change of many factors. To cope with this problem, economists look for natural experiments (situations in the ordinary course of economic life in which the one factor of interest is different and other things are equal or similar); conduct statistical investigations to find correlations; and perform economic experiments by putting people in decision-making situations and varying the influence of one factor at a time to discover how they respond.

## **NORMATIVE ECONOMICS**

Normative economics is the study of how the economy should be. It is also known as Policy economics wherein normative statements like opinions and judgments are used. It determines the ideal economy by discussion of ideas and judgments.

In normative economics, people state their opinions and judgments without considering the facts. They make distinctions between good and bad policies and the right and wrong courses of action by using their judgments. Normative economic statements cannot be tested and proved right or wrong through direct experience or observation because they are based on an individual's opinion.

All the policy questions on which economists provide advice involve a blend of the positive and the normative. Economics can't help with the normative part – the policy goal. But for a given goal, economics provides a method of evaluating alternative solutions – comparing marginal



benefits and marginal costs and finding the solution that makes the best use of available resources.

## **1.5 CENTRAL PROBLEMS OF AN ECONOMY**

Scarcity is the root cause of all economic problems. We know that resources are scarce or short in supply in relation to demand; but wants or ends are unlimited. As a consequence, we face the problem of choice among so many of our wants. This is because scarce means have alternative uses. Thus, we have to choose among the most urgent and less urgent wants. In fact, the basic problem of an economy is the problem of choice. More precisely, problem before us is to take right decisions in regard to the goals or ends to be attained and the way, the scarce means to be utilized for this purpose. Every economy faces some fundamental problems called as central problems of an economy. We may enlist three major problems facing any economy. These are –

**A. Problem of Allocation of Resources**

**B. Problem of Utilization of Resources**

**C. Problem of Growth of Resources**

Let us discuss these issues one by one:

**A. Allocation of Resources:** An economy also confronts three fundamental economic problems. These are the following:

**(1) What goods and services are to be produced?** The first major problem faced by an economy is what types of goods and services to be produced. As resources are limited, we must choose between different alternative collection of goods and services that may be produced. It may also imply whether to produce capital/producer goods or consumer goods. Moreover, we have to decide about the quantity of the goods to be produced in the economy. Example - Does the economy uses its resources to build more hospitals, roads, schools or luxury hotels? Do we make more iPhones and iPads.

**(2) How to produce these goods and services?** The next problem we have to tackle is the problem of how to produce the desired goods in the economy. Thus the question of techniques to be used in the production comes in the mind. Whether we should use labour-intensive technique or capital – intensive technique? Labour-intensive method of production implies more use of labour per unit than capital whereas; capital-intensive technique indicates more use of capital per unit than labour. The choice depends on the availability of resources. A labour surplus economy

can well use the labour-intensive technology. Example - For example, cloth can be produced either with automatic looms or with power looms or with handlooms. Fields can be irrigated by building small irrigation works like tube-wells and tanks or by building large canals and dams. Therefore, the economy has to decide whether cloth is to be produced by handlooms or power looms or automatic looms. Similarly, it has to decide if the irrigation has to be done by minor irrigation works or by major works. Obviously, it is a problem of the choice of production techniques.

**(3) For whom these goods and services are to be produced?** Once we have decided what goods to be produced and what techniques to be used in the production of goods, we are encountered with another problem, i.e., the problem of distribution of goods in the economy. Who is to enjoy and get the benefit of the goods and services produced? It is not possible to satisfy everyone's want due to scarcity, so it must be decided to whose wants are to be satisfied. Should the economy produce more of food crops or more of computers? Whose needs are to be addressed the poorer people or the richer people? Should everybody get equal share of the total goods and services produced, even if some people may need more than others? All these decisions refer to the distribution of income and wealth in the society. This is the problem of sharing of national income.

**(B) Are the resources efficiently used?** The other central problem of an economy relates to full utilisation of resources- land, labour, capital. We have also to see that scarce resources are efficiently utilized. This is the problem of economic efficiency or welfare maximization. If all the resources in the economy are fully employed, then the quantity of one commodity can be increased only by forgoing some quantity of the other. This happens when production takes place efficiently. But in reality, most of the time production does not take place efficiently. The factors are not fully employed and the production is below the optimum capacity of economy. You must have seen some of your family members or friends who are unemployed despite being educated. Similarly in our agricultural land we still grow only one crop in a year. This is not a good sign, as the resources are already scarce. If these scarce resources are also not utilized fully, it is wastage of resources. An economy must also try to achieve full employment of all its resources.

**(C) How to attain growth in the economy?** If resources like labour, capital and technology grow over a period of time, the problem of scarcity can be addressed. Thus, for the growth of any economy resources available to the economy should grow. It is only through the effective growth

of resources that a society can enjoy a higher standard of living. It should be able not only to make a structural change from agrarian to industrial sector but also to increase per capita and national income of the country. This is how the countries have developed. If the resources have failed to grow, the countries continue to be underdeveloped. An economy must not remain static. Its productive capacity must increase continuously. Thus, the economies should make efforts so that their resources grow gradually to meet the growing needs.

It is clear that the basic problem of an economy is the economizing of resources. The economizing problem arises in every type of economic society owing to the fact that resources are scarce in relation to multiple wants/ends.

### **1.5.1 SELF INTEREST VS SOCIAL INTEREST**

Economics provides answers to all these questions about what, how and for whom goods and services get produced. When do choices made in the pursuit of self-interest also promote the social interest? Every day, you and 1.24 billion Indians, along with other people in the rest of the world, make economic choices that result in what, how and for whom goods and services get produced.

#### **Self-interest**

A choice is in your self-interest if you think that choice is the best one available for you. You make most of your choices in your self-interest. You use your time and other resources in the ways that make the most sense to you, and you don't think too much about how your choices affect other people. Think about when you order a pizza to be delivered to your home. You order the pizza because you are hungry and you don't order it thinking that the delivery person needs an income. When the pizza arrives, the delivery person is not doing you a favour but is working in his or her self-interest.

#### **Social Interest**

A choice is in the social interest if it leads to an outcome that is the best for society as a whole. The social interest has two dimensions: efficiency and equity (or fairness). What is best for society is an efficient and fair use of resources. Economists say that efficiency is achieved when the available resources are used to produce goods and services at the lowest possible cost and in

the quantities that will give the greatest possible value or benefit. For now, just think of efficiency as a situation in which resources are put to their best possible use. Equity or fairness doesn't have a precise definition. Reasonable people, including economists, have a variety of views about what is fair. There is always room for some disagreement and a need to be careful and clear about which notion of fairness is being used.

### **The Big Question**

Now let's ask whether we can organize our economic lives so that when each one of us makes a choice in our self-interest, we actually promote the social interest. Can trading in free markets achieve this social interest? Do we need government action to help achieve the social interest? Do we need international cooperation and treaties to help achieve the social interest?

Questions about the social interest are hard ones to answer and they generate a lot of discussion, debate and disagreement. Let's take a closer look at these questions with the following example:

### **The Information-age Economy**

The technological change of the past 40 years has been called the Information Revolution. The Information Revolution has clearly served your self-interest: it has provided your mobile phone, laptop, the latest applications and the Internet. It has also served the self-interest of Bill Gates of Microsoft and Gordon Moore of Intel, both of whom have seen their wealth soar.

But did the Information Revolution best serve the social interest? Did Microsoft produce the best possible Windows operating system and sell it at a price that was in the social interest? Did Intel make the right quality of microchips and sell them in the right quantities at the right prices? Was the quality too low and the prices too high? Would the social interest have been better served if Microsoft and Intel had faced competition from other firms?

## **1.6 PRODUCTION POSSIBILITY CURVE**

The production possibility Curve is a graph that depicts the trade-off between any two items produced. It is also known as Transformation Curve or Production Frontier, which shows the maximum feasible quantities of two or more goods that, can be produced with the resources

available. In other words, it indicates the opportunity cost of increasing one item's production in terms of the units of the other forgone. Prof. Samuelson analyzed the economizing problem by the use of production possibility curve.

Thus, a PPC shows the maximum obtainable amount of one commodity for any given amount of another commodity, given the availability of factors of production and the society's technology and management skills.

The concept is used in macroeconomics to show the production possibilities available to a nation or economy, and also in microeconomics to show the options open to an individual firm. All points on a production possibilities curve are points of maximum productive efficiency or minimum productive inefficiency: resources are allocated such that it is impossible to increase the output of one commodity without reducing the output of the other. That is, there must be a sacrifice - an opportunity cost – for increasing the production of any good. All resources are used as completely as possible (without the situation becoming unsustainable) and appropriately.

The production possibility curve does not remain stationary. It moves outward overtime with growth of resources and improvement in technology. This is because we get more output from the same quantities of resources. The table below illustrates production possibilities of a simple economy producing two commodities - cars and computers. Two production possibilities - E and F are shown. When the economy decides to put more resources for the production of computers, it must sacrifice some resources from the production of cars. Thus, when 10000 computers are decided to be produced, 5000 cars cannot be produced as the resources are now diverted to the production of computers.

Production possibilities	Computers (in 000's)	Cars (in 000's)
E	5	15
F	10	10

The below fig. 1.1 derived from the table above, shows the production possibility curve. If all resources in the economy are utilized in the production of cars, OA units of cars can be produced.

On the other hand, if all resources are put in the production of computers, OB units of computers would be produced in the economy. Joining points A and B, we get production possibility curve AB. In case, the economy decides to produce both the commodities by using the available resources, it can produce various combinations of cars and computers by staying on the curve AB, such as at E or F. At point E, it can produce OS units of cars and OT units of computers. Similarly, at F, ON units of cars and OM units of computers can be produced. Thus, the points E, F or any other point on curve AB show maximum feasible combinations of cars and computers which can be produced with the resources available. Point C in the figure is not attainable or feasible for the economy as it is above the production possibility curve AB, i.e., beyond the capacity of the economy. Again, it will not produce at point D which is though attainable but not desirable, because in that case the economy's resources will not be used most effectively.

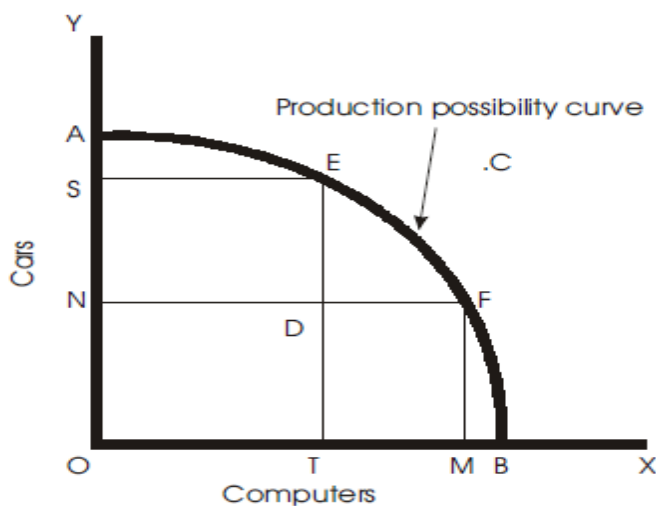


Fig. 1.1

It is, thus, seen that to produce more computers, some units of cars are to be sacrificed, i.e., cars can be transformed to computers. The rate at which one product is transformed into another is called **marginal rate of transformation** (MRT). Thus, MRT between cars and computers is the units of cars (in our case, 5000), which has to be sacrificed for the production of computers.

MRT increases, as more of one commodity is produced and less of another. This makes Production Possibility curve concave to the origin.

### **Uses of Production Possibility Curve**

The production possibility curve has a number of uses. It helps in finding the solution of the basic problems of production - what and how to produce and for whom to produce goods in the economy. Besides, whenever government decides to divert its resources, say, from necessities to luxuries, it may utilize the concept of production possibility curve. It can also help in guiding the diversion of resources from current consumption goods to capital goods and increase productive capacity to attain higher levels of production.

#### **1.6.1 OPPORTUNITY COST**

Opportunity cost is a term which means the cost of something in terms of an opportunity foregone (and the benefits that could be received from that opportunity), or the most valuable foregone alternative. In other words, the opportunity cost of a given commodity is the next best alternative cost or transfer costs. As we know that productive resources are scarce, therefore, the production of one commodity means not producing another commodity. The commodity that is sacrificed is the real cost of the commodity that is produced. This is the opportunity cost. Let us explain this with an example. Suppose a producer can produce a car or a computer with the money at his disposal. If the producer decides to produce car and not computer, then the real cost of the car is equal to the cost of computer, i.e., the alternative foregone. Let us take another example to explain the concept. For example, if a company decides to build hotels on vacant land that it owns, the opportunity cost is some other thing that might have been done with the land and construction funds instead. In building the hotels, the company has forgone the opportunity to build, say, a sporting center on that land, or a parking lot, or a housing complex, and so on. In simpler terms, the opportunity cost of spending a day for picnic with your friends could be the amount of money you could have earned if you had devoted that time to working overtime.

Opportunity cost need not be assessed in monetary terms, but rather, is assessed in terms of anything that is of value to the person or persons doing the assessing. The consideration of opportunity costs is one of the key differences between the concepts of economic cost and accounting cost. Assessing opportunity costs is fundamental to assessing the *true cost* of any

course of action. The simplest way to estimate the opportunity cost of any single economic decision is to consider, “What is the next best alternative choice that could be made?” The opportunity cost of paying for college fee could be the ability to buy some clothes. The opportunity cost of a vacation in the Goa could be the payment for buying a motorbike.

It is to be noted that opportunity cost is not the sum of the available alternatives, but rather of benefit of the best alternative of them. The concept of opportunity cost can be explained with a diagram that depicts opportunity cost between any two given items produced by a given economy. It is known in economics as the production possibility curve, as shown in Fig. 1.1 above. In the imaginary economy discussed above which produces only cars and computers, the economy will be operating on the PPC if all resources (inputs) are fully utilized and used most appropriately (efficiently). The exact combination of cars and computers produced depends on the mechanisms used to decide the allocation of resources (i.e., some combination of markets, government, tradition, and community democracy).

The concept of opportunity cost has become very popular in the recent years. The modern analysis of cost-benefit analysis is based on the theory of opportunity cost only. The cost-benefit analysis is a guiding tool for entrepreneurial decisions in the modern economy. Although opportunity cost can be hard to quantify, its effect is universal and very real on the individual level. The principle behind the economic concept of opportunity cost applies to all decisions, not just economic ones.

## 1.7 THE ECONOMIC WAY OF THINKING

The questions that economics tries to answer tell us about the scope of economics, but they don't tell us how economists think and go about seeking answers to these questions. We're going to look at six key ideas that define the economic way of thinking. These ideas are:

1. A choice is a *trade-off*.
2. People make *rational choices* by comparing benefits and costs.
3. *Benefit* is what you gain from something.
4. Cost is what you *must give up* to get something.
5. Most choices are 'how-much' choices made at the *margin*.
6. Choices respond to *incentives*.



### 1. A Choice Is a Trade-off

Because we face scarcity, we must make choices. And when we make a choice, we select from the available alternatives. For example, you can spend Saturday night studying for your next economics test or having fun with your friends, but you can't do both of these activities at the same time. You must choose how much time to devote to each. Whatever choice you make, you could have chosen something else.

You can think about your choice as a trade-off. A **trade-off** is an exchange – giving up one thing to get something else. When you choose how to spend your Saturday night, you face a trade-off between studying and hanging out with your friends.

### 2. Making a Rational Choice

Economists view the choices that people make as rational. A **rational choice** is one that compares costs and benefits and achieves the greatest benefit over cost for the person making the choice. Only the wants of the person making a choice are relevant to determine its rationality. For example, you might like your coffee black and strong but your friend prefers his milky and sweet. So it is rational for you to choose espresso and for your friend to choose cappuccino.

The idea of rational choice provides an answer to the first question: What goods and services will be produced and in what quantities? The answer is those that people rationally choose to buy! But how do people choose rationally? Why do more people choose an iPod rather than an iPad? The answers turn on comparing benefits and costs.

### 3. Benefit: What You Gain

The **benefit** of something is the gain or pleasure that it brings and is determined by **preferences** – by what a person likes and dislikes and the intensity of those feelings. If you get a huge kick out of updating your Facebook page every day, that activity brings you a large benefit. If you have little interest in listening to a news podcast, that activity brings you a small benefit.

Some benefits are large and easy to identify, such as the benefit that you get from being at university. A big piece of that benefit is the goods and services that you will be able to enjoy with the boost to your earning power when you graduate. Some benefits are small, such as the benefit you get from a slice of pizza.

Economists measure benefit as the most that a person is willing to give up to get something. You are willing to give up a lot to be at university but you would give up only an MP3 download for a slice of pizza.

#### **4. Cost: What You *Must* Give Up**

The **opportunity cost** of something is the highest-valued alternative that must be given up to get it. To make the idea of opportunity cost clear, think about your opportunity cost of being at university. It has two components: the things you can't afford to buy and the things you can't do with your time. Start with the things you can't afford to buy. You've spent all your available income on tuition, residence fees, books and a laptop. If you weren't at university, you would have spent this money on going to clubs and films and all the other things that you enjoy. But that's only the start of your opportunity cost. You've also given up the opportunity to get a job. Suppose that the best job you could get if you weren't at university is working at HSBC as a trainee earning ₹1,80,000 a year. Another part of your opportunity cost of being at university is all the things that you could buy with the extra ₹1,80,000 you would have.

As you well know, being a student eats up many hours in class time, doing homework assignments, preparing for tests and so on. To do all these school activities, you must give up many hours of what would otherwise be leisure time spent with your friends. So the opportunity cost of being at university is all the good things that you can't afford and don't have the spare time to enjoy. You might want to put a value on that cost or you might just list all the items that make up the opportunity cost.

The examples of opportunity cost that we've just considered are all-or-nothing costs – you're either at university or not at university. Most situations are not like this one. They involve choosing *how much* of an activity to do.

#### **5. How Much? Choosing at the Margin**

You can allocate the next hour between studying and emailing your friends. But the choice is not all or nothing. You must decide how many minutes to allocate to each activity. To make this decision, you compare the benefit of a little bit more study time with its cost – you make your choice at the **margin**.

The benefit that arises from an increase in an activity is called **marginal benefit**. For example, your marginal benefit from one more night of study before a test is the boost it gives to your grade. Your marginal benefit doesn't include the grade you're already achieving without that extra night of work.

The *opportunity cost* of an *increase* in an activity is called **marginal cost**. For you, the marginal cost of studying one more night is the cost of not spending that night on your favourite leisure activity.

To make your decisions, you compare marginal benefit against the marginal cost. If the marginal benefit from an extra night of study exceeds its marginal cost, you study the extra night. If the marginal cost exceeds the marginal benefit, you don't study the extra night.

## **6. Choices Respond to Incentives**

Economists take human nature as given and view people as acting in their self-interest. All people – consumers, producers, politicians and civil servants – pursue their self-interest. Self-interested actions are not necessarily *selfish* actions. You might decide to use your resources in ways that bring pleasure to others as well as to yourself. But a self-interested act gets the most value for *you* based on *your* view about benefit.

The central idea of economics is that we can predict the self-interested choices that people make by looking at the *incentives* they face. People undertake those activities for which marginal benefit exceeds marginal cost and reject those for which marginal cost exceeds marginal benefit. For example, your economics lecturer gives you a problem set and tells you these problems will be on the next test. Your marginal benefit from working on these problems is large, so you work hard on them. In contrast, your statistics lecturer gives you a problem set on a topic that she says will never be on a test. You get little marginal benefit from working on these problems, so you decide to skip most of them.

Economists see incentives as the key to reconciling self-interest and social interest. When our choices are not in the social interest, it is because of the incentives we face. One of the challenges for economists is to figure out when the incentives that result in self-interested choices are also in the social interest. Economists emphasize the crucial role that institutions play in influencing the incentives that people face as they pursue their self-interest.