
UNIT 1 INTRODUCTION TO ECONOMICS AND ECONOMY

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1.0 OBJECTIVES

After studying this unit, you will be able to:

- explain the problem of scarcity of resources for satisfying ever-increasing wants of society;
- state the meaning and nature of an economy;
- describe the concept of economic entities;
- discuss the concept of production possibility curve;
- state the issues relating to allocation of resources between investment and consumption, and between private and public goods;
- explain the methods of resource allocation in a market economy in a socialist economy and in a mixed economy;
- clearly describe the basic concepts and methodology of Economics;
- state the nature of economic laws; and
- explain some of the analytical concepts associated with economic reasoning.

1.1 INTRODUCTION

Let us begin with defining the discipline of Economics.

Definition of Economics

Economics has been variously defined. As summarised by Samuelson, some of the definitions seek to explain that economics:

- analyses how a society's institutions and technology affect prices and the allocation of resources among different uses.
- explores the behaviour of the financial markets, including interest rates and stock prices.
- examines the distribution of income and suggests ways that the poor can be helped without harming the performance of the economy.
- studies the business cycle and examines how monetary policy can be used to moderate the swings in unemployment and inflation.
- studies the patterns of trade among nations and analyses the impact of trade barriers.
- looks at growth in developing countries and proposes ways to encourage the efficient use of resources.
- asks how government policies can be used to pursue important goals such as rapid economic growth, efficient use of resources, full employment, price stability, and a fair distribution of income.

A common theme running through all these definitions is that scarcity is a fact of life and that an efficient use of these scarce resources is to be found. That is how we define economics as a science that deals with scarcity.

It explains the behaviour of different economic units, households, firms, government and the economy as a whole, when they are faced with scarcity.

1.2 CONCEPT OF SCARCITY

“Scarcity” lies at the root of all economic activities. The concept of scarcity finds an expression in two basic facts of economic life:

- A. Unlimited wants or ends, and
- B. Scarce resources or means.

A. Unlimited wants or ends

Every person has some wants. Different persons have generally different wants, and wants of even the same person keep changing with the passage of time, change of place and status.

Human **wants are unlimited and keep on increasing**. Different wants differ in their intensity. Subject to the availability of resources, higher order wants need be satisfied first and if the resources are still available these may be used to satisfy lower order wants.

B. Scarce resources or means

Satisfaction of wants requires resources (or the means to satisfy wants). Availability of resources is limited in relation to requirements.

However, scarce means have alternative uses.

The resources therefore need be allocated among different uses in a systematic coordinated manner. Every individual and economy has to devise a mechanism for this.

Different societies try to solve these issues in different ways and in the process each society creates a set-up called ‘an economy’. The term ‘economy’ or ‘economic system’ is a comprehensive one. It covers the entire set of institutions and arrangements, (including rules and regulations which facilitate their interactions) for resolving the basic and permanent problem of an imbalance between means and wants.

The human society has evolved several sets of such institutional arrangements each is termed an economic system and they have their own distinguishing features and nomenclatures. These systems try to adopt their own means and methodologies for solving the basic problems.

For example, take the case of a capitalist economy. In this case the means of production are owned and inherited by individuals, and various economic decisions are guided by prices of goods and services in the market. The income of an individual is determined by means of production supplied by him to the market and the price which they are paid for their service. On the other hand, in a strict socialist economy all the means of production are owned by the state. The state takes all the decisions regarding the use of available resources.

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However, whatever its nature, every economy has to solve the basic problem of scarcity of means in relation to the ever-increasing and varied wants. The means and wants can be combined in alternative ways. The problem of scarcity exists in every society, irrespective of the levels of its development. Hence it has to address itself to two issues:

- 1) increasing the availability of means of satisfaction, and
- 2) laying down the priorities of the wants to be satisfied.

Check Your Progress 1

- 1) State two important characteristics of wants which make them unlimited in number.

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- 2) What is an economy?

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- 3) Pick up the correct option among the following:

Which of the following can be called scarce:

- a) Stock of rotten vegetables
- b) Useless plants in a jungle
- c) Number of flowers in a nursery
- d) Water in a dirty pit.

1.3 MEANING OF PRODUCTION

The term ‘**Production**’ implies the transformation of various inputs into output thereby increasing the want-satisfying capacity of the inputs. The process of production transforms the things occurring in nature into goods and services which are capable of satisfying human wants. The things which are so transformed are called inputs while output is nothing but the transformed form of inputs, that is, the goods and services. This involves some human effort, both physical and intellectual. The transformation may be physical (a different appearance which enhances want satisfying capacity), spatial (relocate or transfer the things from one place to another to make them available to the end users) or inter-temporal (saving/preserving things which arise/grow/made today for use at a later date-storage and warehousing). A particular transformation is production if the want-satisfying capacity of the output (also called ‘product’) is more than that of inputs used. To put it differently production is nothing but the creation of utility.

1.4 CENTRAL PROBLEMS OF AN ECONOMY

Because of the scarcity of resources every economy is faced with certain basic or fundamental problems which it must try to solve within its socio-economic framework. These central problems are:

1.4.1 What to Produce?

An economy does not have enough resources to produce everything required by it. So, it must be selective and decide what to produce and what not to produce. When some goods are not produced, some wants of the society remain unsatisfied. The decisions regarding the wants to be satisfied and the goods and services to be produced are interrelated and are taken in a coordinated manner. This is called allocation of productive resources. If some factors of production are employed in the production of product X, to that extent, these will no longer be available for production of product Y. The problems can be illustrated by Production Possibility Curve which we will introduce shortly.

1.4.2 How to Produce?

This is a problem which covers the details of the allocation of productive resources in the production of various goods and services. More precisely, we can say that when an economy decides to produce X, it has also to work out exactly how much of labour, capital, land, etc., would go into its production. The exact proportion of factor-inputs used in the production of goods needs to be decided, irrespective of the size and nature of an economy. This is called the technique of production of that item. For example, we may think of goods which are produced by using more of labour than capital. In such cases labour intensive techniques of production are said to be in use. On the other hand, if more of capital goes into the production of an item, then we say that it is being produced by a capital-intensive technique.

When an individual producer is to decide about the technique of producing any particular product, he considers the prices and productivities of alternative inputs, say labour and capital, since frequently their relative usage can be varied. He tries to use those inputs in such a combination which costs him the least and will yield him the maximum output.

His decision is based on consideration of following two factors:

- i) the relative price of labour and capital, and
- ii) the relative efficiency of the two inputs

1.4.3 For Whom to Produce?

A society comprises a large number of individuals and households. All the output of consumption goods and services is ultimately meant for their use. Therefore, all goods and services produced are to be distributed amongst the individuals and households. The share of each individual and household has to be determined and also the quantities of specific goods and services which comprise that share.

We can see that it is possible to propose different principles whereby this distribution may be carried out. In an economic system organised on market

principles, the income shares of individual members of the society are determined in the following manner:

In a market economy, productive resources are privately owned. They are sold, bought and hired like any other goods or services. The price of a productive resource is determined by the market forces of demand and supply. Whenever it is to be employed by a producer, he has to pay its market price to its owner. It is for the owner to supply it to the market or withhold it. The income of each individual under these conditions, is determined by the amounts of different productive resources owned and supplied by him to the market and their respective price.

1.4.4 The Problem of Growth

Every economy seeks to increase its stock of capital to increase its production capacity and thereby generate more income. The generated income in an economy has two alternative uses, viz. consumption expenditure (C) and saving (S). Thus, $Y = C + S$. Saving is source of finance for investment in an economy. Investment adds to the capital stock of an economy. And therefore, there is a need to reduce the share of consumption expenditure (and thereby increase investment); this helps in capital formation.

1.4.5 Choice between Public and Private Goods

- 1) **Private Goods:** There are certain goods (the term goods here includes services also) whose availability can be restricted to selected individuals only. For example, a product may be priced in the market and only those who pay its price may be allowed to have it. This characteristic of a product by which some people can be prevented from its use is referred to as the '**principle of exclusion**'. Accordingly, those persons who cannot pay for it or who are not ready to pay, are not allowed to use it. The use of the goods is thus divisible between different persons. **Any goods which can be priced and whose use can be restricted to selected persons is termed as private goods.**
- 2) **Public Goods:** When it is not possible to restrict the availability of a product to selected individuals, they are termed as public goods or social goods. Such goods cannot be so priced as to deprive some persons from using it. That way, it is indivisible. Defence service is a typical example of a public service. When a country is protected against foreign aggression, every citizen is protected.

With its limited resources, an economy cannot have enough of both public and private goods. It must try to achieve an optimum combination of both.

1.4.6 The Problem of 'Merit Goods' Production

Those goods whose consumption is considered highly desirable for the members of the society are termed as merit goods. The important feature of the merit goods is that their consumption benefits both the user and non-users. For example, if a person is educated and healthy, it not only helps him but also the society as a whole. Health and education, therefore, are called a merit product/service and it is desirable that every member of the society gets education. Consumption of merit goods benefits the society as a whole and raises the level of its efficiency and well-being. Therefore, every society has to decide the extent it can and should produce and consume merit goods.

Check Your Progress 2

1) State the central problems of an economy?

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2) What is capital formation?

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3) What is a technique of production?

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4) What are merit goods?

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5) Differentiate between public and private goods.

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1.5 PRODUCTION POSSIBILITY CURVE

The economy has to choose between alternative combinations of various goods and services. This problem of choice can be illustrated by a simple graph known as **Production Possibility Curve or a Product Transformation Curve**. A typical Production Possibility Curve (PPC) is drawn on the following assumptions:

- i) The country has to choose between alternative combinations of only two goods, say, LED (L) and computer monitor (M).
- ii) All productive resources of the country are taken as given and so is the state of technology, no changes are made in them.
- iii) All productive resources of the economy are fully employed. There is no wastage or under utilisation.
- iv) The productive resources are suitable for the production of both goods (L) and (M). They can, therefore, be shifted from the production of one to the other goods. However, such a shift would reduce the production of the first good and increase that of the other.
- v) No factor of production is considered to be specific in the production of one good alone and inappropriate for the production of the other.
- vi) We consider the productive efficiency of the productive resources only in physical terms, i.e., the units of LED (L) and Computer Monitor which they can produce.

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Based upon these assumptions, we can illustrate the set of production possibilities available to a country by a hypothetical example. Look at Table 1.1. The figures in the table show that all the productive resources of the country put together can produce a maximum of either 30 L or 30 M or some other combinations thereof. The production possibilities illustrated in Table 1.1 are also represented in Fig. 1.1 in the form of a production possibility curve (PPC).

Quantity of M is measured along X-axis and the numbers of L are measured along Y-axis. The respective pairs of the quantities of L and M are plotted and joined with each other to yield a curve which is called the Production Possibility Curve. Thus, the PPC represents all the possible combinations of L and M which can be produced by using all the productive resources of the economy, efficiently. In that sense, each point on the curve represents the maximum possible output and, for that reason, it is also termed as the production frontier of the economy.

Table 1.1: Production Possibilities Available to a Country

Combination	LED (Numbers) (L)	Computer Monitor (M)	Loss of M for each Additional L Produced (Tones)	Loss of L for each Additional M Produced (Numbers)
1	30	0	2.8	
2	25	14	1.2	0.357
3	20	20	0.8	0.833
4	15	24	0.6	1.250
5	10	27	0.4	1.667
6	5	29	0.2	2.500
7	0	30		5.000

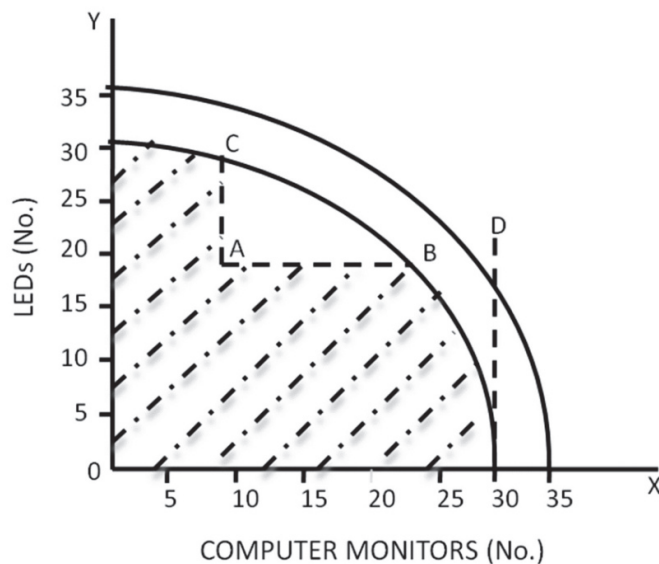


Fig. 1.1

The economy can produce any combination of L and M represented by a point either on the PPC or in the shaded area of the diagram. Production combinations represented by the shaded area imply that the economy can produce either L or M or both. For example, combinations represented by points A, B and C are feasible, as these lie either on the PPC or in the shaded area. But the combination represented by A is feasible but not efficient. Combination represented by points B and C are both feasible and efficient. If it produces at Point A it is not utilising some of its productive resources and let them go waste. Thus consider point A which represents a combination of 10 tonnes of M and 14 L. The PPC, however, shows that with this much of M, the economy can produce 27 L (as shown by point C on PPC). Alternatively, with 14 L, the quantity of M can be increased to 25 tonnes (see point B).

Any point beyond the PPC, which is in the non-shaded area of the diagram, shows a combination of L and M which the economy cannot produce. For example, point D represents a combination of 30 M and 20 L. However, when 30 M is produced, no resources are left for the production of L. On the other hand, if 20 L are produced, then the quantity of M has to be reduced to 20.

Characteristics of PPC

A typical PP curve has two characteristics:

1) Downward sloping from left to right

It implies that in order to produce more units of one good, some units of the other good must be sacrificed (because of limited resources).

2) Concave to the origin

A concave downward sloping curve has an increasing slope. The slope is the same as MRT. So, concavity implies increasing MRT, an assumption on which the PP curve is based.

Can PP curve be a straight line?

Yes, if we assume that MRT is constant, i.e. slope is constant. When the slope is constant the curve must be a straight line. But when is MRT constant? It is constant if we assume that all the resources are equally efficient in production of all goods.

Note that a typical PP curve is taken to be a concave curve because it is based on a more realistic assumption that all resources are not equally efficient in production of all goods. (Fig. 1.2)

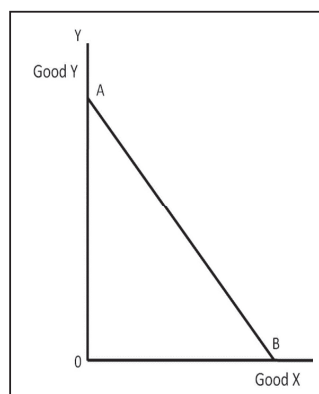


Fig. 1.2

Does production take place only on the PP curve?

Yes and no, both. Yes, if the given resources are fully and efficiently utilised. No, if the resources are under-utilised or inefficiently utilised or both. Refer to the Fig. 1.3.

On point F, and for that matter on any point on the PP curve AB, the resources are fully and efficiently employed. On point U, below the curve or any other

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point but below the PP curve, the resources are either under-utilised or inefficiently utilised or both. Any point below the PP curve thus highlights the problem of unemployment and inefficiency in the economy.

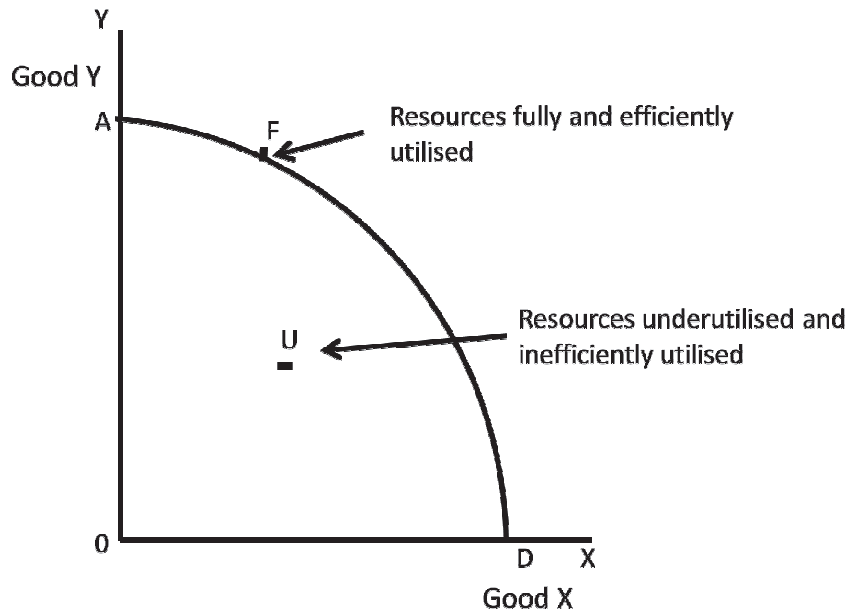


Fig. 1.3

Can the PP curve shift?

Yes, if resources increase. More labour, more capital goods, better technology, all means more production of both the goods. A PP curve is based on the assumption that resources remain unchanged. If resources increase, the assumption breaks down, and the existing PP curve is no longer valid. With increased resources, there is new PP curve to the right of the existing PP curve.

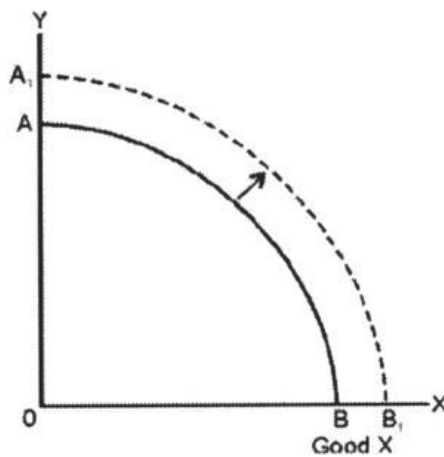


Fig. 1.4

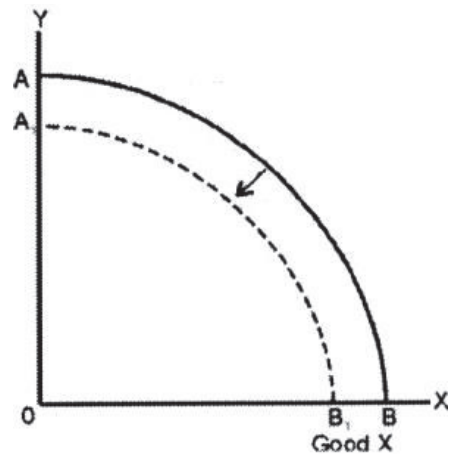


Fig. 1.5

It can also shift to the left, if the resources decrease. It is a rare possibility but sometimes it may happen due to fall in population, and due to destruction of capital stock caused by large scale natural calamities, war, etc.

1.6 ALLOCATION OF RESOURCES: SOLUTION OF CENTRAL PROBLEMS

Theoretically, there are two types of economic systems, viz.. Capitalistic economy and socialistic economy. In practice, all the countries have adopted a system which is broadly identified as mixed economy.

The problem of resources allocation may be tackled in several ways and each economy tries to solve it in line with its own chosen objectives.

1.6.1 Resource Allocation in a Mixed Economy

A mixed economy is one in which some decisions are left to the market forces while others are taken under direct government regulation or even ownership.

Some selected areas of economic activities are reserved for the government sector. The government acquires the necessary productive resources for these activities and employ them in conformity with its priorities. The production pattern of the public sector, the prices of items produced by the public sector and other measures are used to regulate the allocation of resources in private sector as well. These other measures include price controls, licensing, taxation, subsidies and others. Additionally, various labour welfare measures are implemented and enforced by the government. Similar steps are taken to encourage the use of productive resources for encouraging the development of backward areas of the country for removing specific shortages, and for bringing about a balanced development of the economy as a whole.

1.7 ECONOMIC METHODOLOGY AND ECONOMIC LAWS

Economic methodology investigates the nature of economics as a science. It investigates the nature of assumptions, types of reasoning and forms of explanations used in economic science. Various practices such as classification, description, explanation, measurement, prediction, prescription and testing are associated with economic methodology. Economic methodology examines the basis and groups for the explanations. Economists give answer why questions about the economy. For example, economists use the shifting of demand and supply curves to answer the question of why prices change.

Economics being a social science, economic laws are, therefore, a part of social laws. In the words of Alfred Marshall, we should separate that part of behaviour of members of the society where the main motive happens to be an economic one, where the main motive can be expressed in terms of money price. The corresponding activities are then economic activities. However, such a dividing line between economic laws and other social laws is not always clear. Very often an activity happens to be motivated by a combination of both economic and non-economic considerations. As a result, it is often quite difficult to formulate pure economic laws which have full validity also.

1.7.1 Inductive and Deductive Reasoning

Economists have followed two traditions in formulating economic laws. According to one tradition, the causes (also called conditions or assumptions)

are specified and different economic units are expected to behave in a 'rational' manner. The outcome in this case is predictable, provided the assumptions made are satisfied. The assumptions themselves may be totally unrealistic or may be very close to reality but they are stated in a precise manner. In any case, this type of reasoning is called deductive reasoning. In this method, the generalisation or law is stated and the individual activities are expected to conform to it. A typical example of deductive reasoning is the law of demand which states that, other things being equal, the quantity of a product demanded varies inversely with its price. When price falls, demand expands and when price rises, demand contracts.

As against this deductive reasoning, some thinkers try to discover economic laws the other way round. Instead of laying down causes or conditions on a hypothetical basis, they collect the actual information regarding the behaviour of economic units under different conditions. In other words, empirical information is collected and generalisations regarding the behaviour of economic units under different conditions are worked out. This is called the method of inductive reasoning. A well-known example of the use of this method is the Engel's Law. Through a study of family budgets, Engel concluded that as the income of a family increases, the proportion of its expenditure on necessities decreases while that on comforts and luxuries goes up. Most business firms prefer this line of approach.

In economics, both inductive and deductive methods of reasoning are used to supplement our understanding of an economy and its working.

1.7.2 Equilibrium

The concept of equilibrium is an important tool of analysis in economics. It is very frequently used and one should become familiar with it. Usually, an economic variable (such as the price of a commodity) is subject to various forces trying to pull it in different directions. When these forces are in balance, the value of variable stops changing and it is said to be in equilibrium.

Concept of Equilibrium

Equilibrium means a state of rest, the attainment of a position from which there is no incentive nor opportunity to move.

- A consumer is in equilibrium when his expenditure on different goods and services yield maximum satisfaction. No move on his part can increase his satisfaction but, rather, will decrease it.
- A business firm is in equilibrium when its resource purchases and its output are such that it maximises its profits, if profit maximisation is its objective, any change on its part will cause profits to decrease.
- A resource owner is in equilibrium when the resources which he owns are placed in their highest paying employments and the income of the resource owners is maximised. Any transfer of resource units from one employment to another will cause his income to decrease.
- An economy is in equilibrium at the level of income (and employment) where aggregate demand equals aggregate supply.

Equilibrium concepts are important, not because equilibrium is ever in fact attained but because they show us the directions in which economic changes

proceed. Economic units in disequilibrium usually move toward equilibrium positions.

Equilibrium can be analysed in two forms:

- 1) **Partial:** In partial equilibrium analysis we concentrate on a single market in isolation from the rest of the economy.
- 2) **General:** In general equilibrium analysis, we analyse simultaneously all the markets in the economy on the basic premise that everything depends on everything else.

1.8 POSITIVE VERSUS NORMATIVE ECONOMICS

The term **positive economics is concerned with only formulating economic laws and describing reality**. The economic laws may be derived from theoretical assumptions or from recorded facts. Either way, they only tell us what exists. They do not pass any judgement as to whether the findings of economic analysis are desirable or need a modification.

As against this, **normative economics realises the fact that an economy is never perfect. The outcome of its working can always be improved upon**. It is quite normal to find an economy faced with many problems requiring immediate attention. Such problems can be related to price changes, employment, scarcity of certain inputs, inequalities of Income and wealth, and so on. In normative economics, the knowledge gained is put to use for improving the working of the economy. Targets of improvement are laid down and policy measures are formulated by which the targets are to be achieved. Thus, normative economics is concerned with what ought to be.

A positive statement:

“An increase in price of petrol leads to a fall in its quantity demanded.”

A normative statement:

Government should take steps to cut the consumption of Petrol.

More generally, normative statement uses the verb “should”.

1.9 MICROECONOMICS AND MACROECONOMICS

The terms microeconomics and macroeconomics are used in connection with the level of aggregation, that is the extent to which economic units and variables are covered in economic analysis. At one end, the analysis may cover the behaviour and responses of a single economic unit and at the other extreme it may cover the entire economy. These two terms (micro and macro) are derived from Greece words **mikros** and **makros** which mean small and large respectively.

Microeconomics deals with the behaviour of individual elements in an economy such as the determination of the price of a single product or the behaviour of a single consumer or business firm.

As against this, macroeconomics covers large aggregates or collection of economic units which may extend to the entire economy. In the words of Kenneth Boulding, **macroeconomics covers the great aggregates and averages of the economic system rather than individual items.** Here we study collections of variables and economic units (i.e., macro variables) such as national income, employment, level of prices in general, intersectoral flows of goods and services, total savings and investment, and the like. **While the study of an individual firm or an industry lies within the scope of microeconomics, an entire sector falls within the scope of macroeconomics.**

To use a metaphor, macroeconomics studies elephant as one object; microeconomics (like five blind men in a flock tale) studies individual parts of a whole body. Each study leads to different results. Or, to use another metaphor, one enjoys the macro-view of a cricket test match while one enjoys a ball-by-ball description when sitting in before a TV.

1.10 STOCKS AND FLOWS

Economic variables are of two kinds: 1) stocks and 2) flows. **A stock variable is the one which can be measured only with reference to a point of time and not over a period of time. As against this, a flow variable is the one which can be measured only with reference to a period of time and not a point of time.** We come across numerous economic variables which belong to one category or the other. Take the examples of the supply of money and magnitude of wealth. They have reference to point of time. They are, therefore, 'stock' concepts. Correspondingly, examples of flow variables are production, saving, expenditure, income, sales, purchases, etc. All these variables can be measured only over a period of time. A factory can produce so much during, say, a month and not at a given moment of time. A person does not have an income at a point of time. But he has it only for a period of time. A flow concept can assume some value only with the passage of time, not otherwise. One should observe that **stock and flow variables are often used together in economic analysis.**

1.11 STATICS AND DYNAMICS

Economic analysis can be conducted either by using a static framework or a dynamic setting. Static and dynamic modes of analysis can be differentiated in more than one ways. According to one definition, in a static model (theory) the variables (cause effect) are not dated. The demand-supply model of market behaviour is a static model. The model that demand depends on own price, supply depends on own price, with an equilibrium condition that demand must equal supply, time does not enter into the picture at all and the variables are all undated. According to this definition, a dynamic model would be one where the relevant variables are dated. If the demand-supply model is restructured as follows, then the model would become dynamic according to this criterion.

$$D_t = f(P_t)$$

$$S_t = g(P_t)$$

$$D_t = S_t$$

where 't' is the relevant time unit.

However, according to some economists, even if the variables are dated the model does not become dynamic. A dynamic model according to this definition would be one where the variables must be dated and a time lag must exist in their relationships. According to this criterion the following would be a dynamic model.

$$D_t = f(P_t)$$

$$S_t = g(P_{t-1})$$

$$D_t = S_t$$

There is **no lag** in the demand relationship. Demand in period 't' depends on own price of the same period. However, in the supply relationship a gestation lag exists which makes the model dynamic. Supply in period 't' depends on price prevailing in the previous period (t-1). The price level in previous period (t-1) would have induced the producers to increase or decrease the supply, full impact of such decisions are visible in time period 't' only. For market to attain equilibrium, demand in period 't' must equal supply in period 't'.

Check Your Progress 3

- 1) State whether the following statements are True or False:
 - i) Positive economics is concerned with what ought to be.
 - ii) Normative economics requires a system of value judgement for recommending policy steps.
 - iii) Every economist prescribes the same remedies for a particular economic problem.
 - iv) Positive economics always depict reality.
 - v) We can always extend the conclusions of microeconomics to the field of macroeconomics.
 - vi) Demand and supply are both stock variables.
 - vii) In comparative statics, a comparison of two equilibrium positions is made.
- 2) Match the item in Column A with those in Column B.

Column A	Column B
i) Study of individual firm and industry	a) Barter
ii) A variable which can be measured at a point of time	b) Macroeconomics
iii) Study of an entire sector of an economy	c) Marginal utility
iv) A variable which can be measured over a period of time	d) Ceteris paribus
v) Want satisfying capacity of a good	e) Flow variable
vi) Satisfaction yielded from consuming one additional unit	f) Microeconomics
vii) Other things being equal	g) Utility
viii) Exchange of apples with eggs	h) Stock variable

- 3) Which of the following will be the new production possibility frontier, if new technology is developed that enables higher productivity in agricultural (A) only? Industrial output (I) is not impacted.

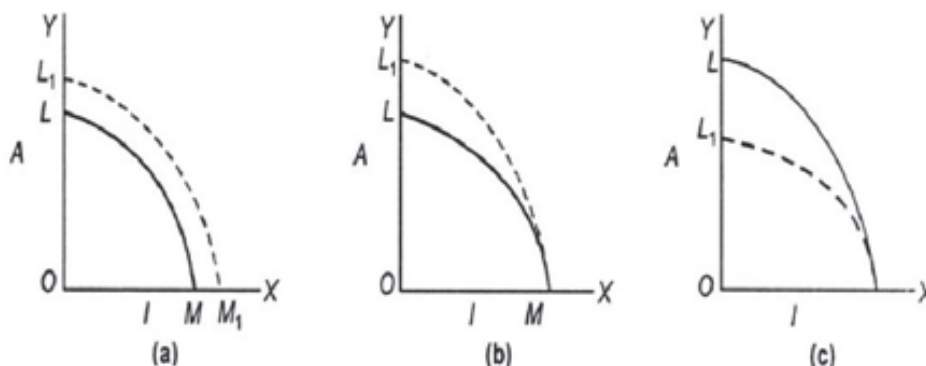


Fig. 1.6

1.12 LET US SUM UP

Economics explains the behaviour of different economic units like consumer, producer, households, firms, governments and the economy as a whole when they are faced with the problem of scarcity. Scarcity is observed in terms of unlimited wants in relation to available scarce resources. Scarcity gives birth to three central problems: What to produce, how to produce and for whom to produce. The other problems aligned with these three problems are the problems growth, choice between public and private goods and the problem of merit goods production. The central problem of an individual as well as for the society is therefore the allocation of scarce means among competing ends. A production possibility curve shows, given scarcity of resources and given technology, the maximum output produced of one good, given the output of other good. It shows how one good can be transformed into another good not physically but via the transfer or shifting of the resources from one line of use to another.

Economic methodology investigates the nature of economics as a science. Economic laws enable us to provide explanation of an event or phenomena in terms of cause and effect relationship. Two types of logics are followed in formulation of economic laws – induction and deduction.

Equilibrium is an important tool of analysis in economics. When the different forces pulling a variable in different directions are in balance, its value stops changing and is said to be in equilibrium.

The term positive economics denotes that part of economic analysis which just describes reality (or theoretical reasoning) without stating the desirability or otherwise of the findings. Normative economics, on the other hand, is concerned with what ought to be. It views reality in the light of chosen goals of society and suggests ways and means of achieving them.

Microeconomics studies the economic activities and responses of individual economic units and their small groups. **Macroeconomics** covers large collections of economic units, their aggregates and averages and macro-variables like national income, employment, and so on.

Economic variables can further be classified into stocks and flows. A **stock variable** is the one which can be measured only with reference to a point of time. A **flow variable**, on the other hand, is measurable only over a period of time.

Static economic or comparative statics is a technique of analysis in which the parameters of the economy are taken to be given. The assumption of ceteris paribus is made and the initial and final equilibrium positions are compared. In dynamic-economics or dynamic analysis, parameters of the economy are allowed to change.

1.13 REFERENCES

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- 3) Hal R. Varian, *Intermediate Microeconomics: a Modern Approach, 8th edition*, W.W.Norton and Company/ Affiliated East-West Press (India), 2010.

1.14 ANSWERS OR HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) Unlimited, ever increasing
- 2) Economy refers to the setup created for meeting the basic and permanent problem of an imbalance between means and wants.
- 3) c)

Check Your Progress 2

- 1) The central problems of an economy are (i) what to produce, (ii) how to produce, (iii) for whom to produce, (iv) the problems of growth, (v) choice between public and private goods (vi) the problem of merit goods production.
- 2) Addition in its stock of capital is capital formation.
- 3) Technique of production refers to exact proportion of factor inputs used in the production of goods.
- 4) The goods whose consumption benefits both user and non-users are merit goods.
- 5) Private goods are the goods whose availability is restricted to selected individuals whereas in case of public goods nobody is excluded in the availability of such goods.

Check Your Progress 3

- 1) i) False ii) True iii) False iv) False – It will depict reality only if its assumptions are realistic. Otherwise it would have only correct reasoning without applicable conclusions. v) False vi) False vii) True
- 2) i) f ii) h iii) b iv) e v) g vi) c vii) d viii) a
- 3) b

1.15 TERMINAL QUESTIONS

- 1) What is an economic system? Explain the central problems of an economy.
- 2) What are the main characteristics of human wants?
- 3) Scarcity lies at the root of every economy. Explain.
- 4) What do you understand by factors of production? Briefly explain each of the four main factors.
- 5) Write short notes on the following:
 - a) Public goods and private goods
 - b) Merit goods
 - c) Human wants
- 6) Explain how the solutions to the fundamental problems of an economy are interlinked with each other.
- 7) Explain the concept of a production possibility curve. Enumerate its assumptions. Illustrate it with the help of an example.
- 8) Briefly explain how resource allocation takes place in the following systems:
 - a) Market economy
 - b) Socialist economy
 - c) Mixed economy
- 9) Giving reasons state which of the following statements are true or false:
 - i) All human wants cannot be satisfied. It is a universal truth. Why to make a serious effort to satisfy them?
 - ii) Only a resource rich economy like Dubai is not faced with the problem of choice.
 - iii) The difference between labour force and work force of an economy indicates the size of unemployed persons.
 - iv) National Library at Kolkata is a right example of a public good.
 - v) MTNL/BSNL produce a private good.

- 10) Distinguish between positive and normative economics. Which one should be preferred and why?
- 11) Write short notes on the following :
 - a) Concept of Equilibrium
 - b) Limitations of Economic Laws
 - c) Ceteris Paribus
 - d) Tracing the Path of Change
- 12) Distinguish between :
 - a) Microeconomics and Macroeconomics
 - b) Static Economics and Dynamic Economics
- 13) State the reasons on account of which almost every modern economy is a dynamic one.
- 14) In what forms opportunity costs manifest themselves for the consumer, the producer, the investor, and a factor of production?