Basic Concepts of Economics

Unit 2





ECONOMY AND ECONOMICS

- Our very existence depends on various Economic Activities that involves production, distribution, exchange and consumption of goods and services.
- The primary aim of the economic activity is the production of goods and services with a view to make them available to masses.
- "Human activities which are performed in exchange for money or money's worth are called economic activities".
- The environment that facilitates these activities is known as Economy.
- Living in society also means that we must know how to organize our lives in perfect manner. We must know to economise our precious time and scare resources.
- You must also learn how to manage time also because in present scenario time is money. Similarly, when we make budget for our home; we make the best use of the resources which are available to us. We can avoid many problems in this way.
- This way of Management of Household is called Economics but it is much more than making a Budget.
- A study of economics can describe all aspects of a country's economy, such as how a country uses its resources, how much time labourers devote to work and leisure, the outcome of investing in industries or financial products, the effect of taxes on a population, and why businesses succeed or fail and many more

ECONOMY AND ECONOMICS

- Thus, Economics is the branch of social science that deals in the study of making decisions in the presence of scarcity of resources in the economy particularly with regard to the human activities such as production, consumption, saving and investment.
- It is a complex social science subject that uses principles of mathematics, physics, statistics, politics, history, sociology, anthropology, psychology and philosophy etc.
- In the true sense, Economics is an inter-disciplinary subject which addresses both the positive (fact based) and normative (value based) issues.
- The term 'Economics' is derived from two Greek words OIKOS and NEMEIN, meaning the rule or law of the household.
- Economics therefore is concerned with not just how a nation allocates its resources to various uses but it ideals with the process by which the productive capacity of these resources can be further increased and with the factors which in the past have led to sharp fluctuations in the rate of utilization of resources.

- The Modern Science of Economics was born with the publication of Adam Smith's "An Enquiry into the Nature and Causes of Wealth of the Nation 1776". That is why, Adam Smith is known as the Father of Modern Economics.
- Economics has been defined by various economists in different ways. This is because 'economics is an unfinished science'. With the passage of time there has been significant development is theories of Economics.
- The various definitions of economics may be classified as under:-
 - Economics as the Science of wealth.
 - Economics as the Science of material well being.
 - Economics as the Science of choice making.
 - Economics as the Science of dynamic growth and development.

- Economics as the Science of Wealth.
 - Adam Smith who is considered to be the father of economics wrote a book entitled'
 "An Enquiry in to the Nature and Causes of the wealth of the Nations", in 1776.
- Economics as the Science of Material Well Being
 - Marshall shifted the emphasis of economics from wealth to welfare.
 - He formulated the definition of economics strictly in accordance with his ideas of human welfare.
- His definition is as follows:
- 'Economics is the 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.

- Economics as the Science of Choice Making or Scarcity definition
 - Robbins wrote a famous book" "An Essay on the Nature and significance of Economic Science", in 1932. He introduced the 'Scarcity' definition of economics in his book.
- "Economics is the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses.
- Economics as the Science of Dynamic Growth and Development
 - Prof. Robbins has excluded from the purview of economics the problem of economic growth and has taken a more static view of an essentially dynamic problem. This inherent defect in Prof. Robbins definition has been sought to be removed by Prof. Samuelson's definition.
- The definition is as follows:
- "Economics is the study of how men and society choose, with or without the use of money, to employ scarce productive resources which could have alternative uses, to produce various commodities over time and distribute them for consumption now and in the future amongst various people and groups of society."

- 'Political economy' was the earlier name for the subject, but economists in the late 19th century suggested "economics" as a shorter term for "economic science" to establish itself as a separate discipline outside of political science and other social sciences.
- Economics has two main streams Microeconomics and Macroeconomics.
- Through these two major fields, economics analyses how economies work and affect - market, business, government, people, and other parts of the society.
- Economic theories are based on extensive studies and analysis.

INDIAN ECONOMISTS AND THEIR CONTRIBUTION

- The study of every discipline starts with the process of defining it and Economics is no exception to this.
- Economy is Economics at play in certain region. In Indian Economy, role of Indian Economists is known throughout the world for their contribution in the economic prosperity of the country. Indian Economists mainly deal with the various concepts of Economics.
- Though Economics today studies a wide spectrum of issues and topics but if we take an overall view, its essence has been very simple i.e. the **betterment of human life on this beautiful planet earth.**
- In making the lives of masses, the Economists have been devising a number of theories and propositions as to how an Economy may maximise its worth and potential.
- Since ancient times many masterpieces were produced by great Economists who were trying to improvise better ways of maximising the fruits of Economic activities.
- The study of Economics has a common goal to search for possible ways and alternatives for the betterment of human life. Apart from this, economists also contribute in formulating some broad rational theories to make a more balanced world.

INDIAN ECONOMISTS AND THEIR CONTRIBUTION

- Some of the renowned Indian Economists are:
- Chanakya (Kautilya): He was an Indian teacher, philosopher, and royal advisor. Originally, a professor of economics and political science at the ancient Takshashila University. Chanakya is traditionally identified as "Kautilya" or "Vishnu Gupta", who authored the ancient political treatise called Arthashastra (Economics).
- Mahavira: Economics in Jainism is influenced by the Mahavira and his principles and philosophies. His philosophies have been used to explain the economics behind it. He was the last of the 24 Tirthankars, who spread Jainism.
- Shri DadaBhai Naroji: He is fondly called the Grand Old Man of India. He was a pioneer in the field of Economics. He prepared the first estimates of National Income in 1876.
- Prof. V.K.R.V. Rao: He was a prominent Indian Economist, Politician, Professor & Educator. He was the first person to adopt scientific procedure in estimating National Income in 1931.

INDIAN ECONOMISTS AND THEIR CONTRIBUTION

- Prasant Chandra Mahalanobis: He was a renowned Indian Statistician and was instrumental in formulating India's strategy for Industrialization in Second Five Year Plan (1956-61).
- Jagdish Natwarlal Bhagwati: He is an India-born, naturalized American, economist. He is a professor of Economics and Law at Columbia University. Bhagwati is notable for his researches in International Trade and advocacy of Free Trade
- Prof. Amartya Sen: He is a renowned Economist and social worker. He was awarded Nobel Prize for the welfare Economics in Market oriented Economics in 1998.

MICROECONOMICS VS MACROECONOMICS

- Modern economics is studied in two parts- Microeconomics and Macroeconomics.
- Micro means small. So, when the study or the problem relates to an individual unit or part of the economy then the subject of study is micro economics.
- Macro means large. When the study relates to the whole economy or to aggregates relating to the whole economy then the subject of study is macro economics.

- Microeconomics is the study of economic activity of an economic unit or a part of the economy or a small group of more than one unit.
- Derived from the Greek word micros meaning small, it relates to the individual economic agent's behaviour and the result of such interactions in determining the price of goods and services.
- It is, thus, also called Price Theory. It is the microscopic study of the economy which deals with decision making by any individual, firm, household with respect to matters of production, consumption, determination of prices in the market, determination of wage rate, and so on.
- The aim is to provide a framework within which the behaviour patterns and interrelationships between individual economic units can be studied and their behaviour with regards to production, exchange and distribution of goods and services can be predicted.
- Thus, attainment of a state of equilibrium from the point of view of individual economic units is the main aim in microeconomic analysis.

- Further, micro economics also puts emphasis on behaviour patterns and role of firms and individuals in income distribution and study of conditions of efficiency in production and attainment of overall efficiency.
- Efficiency implies optimum allocation of resources among the consumers and producers so that there is neither excess demand nor excess supply of goods and services.
- The analysis of the three central problems of an economy-
 - what goods and services to be produced,
 - how to produce them and
 - how they can be distributed in the economy are all subject matter of micro economics.

- Macroeconomics is the **branch of economics that deals with the economic aggregates of a country as a whole.** The word macro is derived from the Greek word macros meaning large.
- It has emerged after the British economist John Maynard Keynes published his famous book The General Theory of Employment, Interest and Money in 1936.
- The Great Depression of 1929 made economists think about the subject in a newer way
 which was holistic and macroeconomic study developed. It is also called the Theory of
 Income and Employment.
- The content of macroeconomic analysis involves a combination of units to get a complete picture of the economic system so as to deal with economic affairs at a large scale.
- The focus areas are aggregate economic variables of an economy. The components of output, price level and employment operate in an economy simultaneously which indicates that they bear a close relationship with each other.
- This forms the basis of macroeconomic study which attempts to analyse these attributes together. It sees the economy as a combination of four components households, firms, government and external sector.

- The study area involves the analysis of effects in the market of taxation, budgetary policies, policies on money supply, role of state, rate of interest, wages, employment, and output.
- It is, therefore, also called income theory as it is concerned with the economy as a whole and seeks to study the causes and solutions for economic issues such as unemployment, inflation, balance of payment deficits and so on.

- In ordinary language, by market we mean the place where goods and services are bought and sold. Remember the places like Sabzi Mandi at Azadpur and Okhla; Timber Market at Paharganj or Kotla; Grain Market at Khari Baoli; Cloth Market at Chandni Chowk, Car Bazar at Lajpat Nagar, Paper Market at Chawri Bazar and Furniture market at Kirti Nagar all situated in Delhi. However, the meaning of market in economics is different.
- By market an economist would mean a complex set of activities by which potential buyers are brought into contact with potential sellers in the process of purchase and sales of goods and services.
- When two or more individuals undertake exchange transactions, a market is established irrespective of time and place. The physical presence of buyers and sellers are not at all relevant in the economist's conception of market.
- Due to the development of modern mode of communication based on computer technology, physical presence is not required establishing a market.
 What is more relevant is that there must exist two groups of transactors who are willing to undertake exchange transactions.

- The essential characteristic of a market is the confrontation between potential buyers and potential sellers, making bids and offers in the process of determining the terms at which exchange would take place.
- The emphasis is on the word Potential. Every one comes to the market with his or her notion of how much to buy or sell depending on the prevailing prices.
- If the prevailing price of a good is high, those who have made plans to buy at a lower price will be priced out of the market. Similarly, if price is low those sellers who planned to sell at higher prices will be eliminated from the market.
- Activities on a market would determine what the price will be, what quantities will be bought and sold, and who the buyers and sellers are.
- In a market-based economy, it is through the market that resources get allocated among competing ends.
- Markets in economics vary from perfectly competitive, to monopoly, to imperfectly competitive, to monopolistically competitive, to oligopolistically competitive.

- The existence of markets provides **efficiency** in the use of resources.
- In economies where markets do not exist, resources cannot be used efficiently.
- Markets provide information required for making optimal decisions.
- The kind of information provided by a market would pertain to the nature of goods traded, the prices prevailing, and who the transactors are.
- No other information is transmitted by the market.
- Also information transmitted by markets would be costless, though for many goods one has to spend money, time and efforts to acquire the relevant market information.
- Modern modes of tele-communication make information gathering, storing and processing much easier. This surely must have improved the quality of decisionmaking.

- Markets can exist and function efficiently if and only if there exist ownership rights in commodities (property rights) which are well defined, transferable and are protected by the laws of the country.
- Ownership rights or property rights imply that the individual owning a commodity can take certain actions with respect to that commodity.
- Such rights include the right to allow access to the commodity on the part of any other individual(s), and also include the right to charge others for the use of the commodity or service as well as transferring the ownership of the commodity to someone else.
- As Quirk says, "What is produced, exchanged and consumed in a society are bundles of property rights that we call commodities.
- The pattern of economic activity within a society is closely linked to the structure of property rights of that society, because it is through the acquisition of property rights that self-interest is expressed and incentives operate."

WHAT IS MEANT BY DEMAND?

- In economics, by demand we mean **effective demand and not absolute demand.**
- The demand for a good by an individual consumer means individual's desire for the good backed by a capacity to pay.
- Human desires backed by purchasing power constitute demand.
- In other words, an individual's desire for a good to satisfy a particular want backed up by his/her willingness and ability to pay gives rise to demand for that good.
- If and only if individuals have means to pay that demand becomes effective in the market for goods.
- An individual's income measures his/her capacity to pay, purchasing power or means to pay for the goods desired

WHAT IS MEANT BY DEMAND?

- Example: A beggar desires milk, but has no purchasing power. Hence a beggar's desire for milk does not constitute an effective demand for milk.
- As a result a beggar cannot participate in market activities. However, suppose this beggar becomes successful in getting a job, becomes a helper in a shop and for his work as helper gets paid for in money.
- The beggar who is now a helper earns an income, with which she can buy milk. The beggar's demand for milk, which earlier constituted only an absolute demand, has now become an effective demand.
- This particular beggar's demand for milk now adds to the market demand for milk, which a potential supplier of milk has to take into account in deciding how much milk must be produced and supplied.
- Note that the person's demand will be effective demand even if she had not picked up a job and had paid for milk out of her collection of alms.
- Hence, for demand (for a good like milk) to exist two conditions must be fulfilled:
 - individuals must have a desire for that good, and
 - their desire must be supported by income or purchasing power or means to pay

- We have considered various influences on the demand for a good.
- Here, it must be pointed out that there could be many other influences working on the demand for a good, which we have not considered.
- In any particular situation if we keep factors other than own price as constant, we can derive a demand schedule, a demand function, and a demand curve.
- A demand schedule lists the various quantities of a good, which a potential consumer buys from the market at different prices, observed at a given moment of time.
- Its tabular representation would be as follows:

Price of Milk (In Rs. per litre)	20	15	105
Quantity Demanded (In liters)	1	1.5	36

- A demand function for a good expresses a causal relationship between quantity demanded of the good and its own price.
- In other words, it is a functional relationship between demand and price.
- If the good is X (milk in our case), Qd x is quantity demand and Px is the own price of good X then the general form of the demand function will be

$$Q_x^d = f(P_x)$$

- What it says is that quantity demanded depends on price. Price is the cause and quantity demanded is the effect.
- Stated alternatively, price is the independent variable while quantity demanded is the dependent variable.
- In technical terms, independent variables are also called exogenous variables while dependent variables are called endogenous variables.
- The demand function which expresses the functional relationship between the quantity demanded of a good and its own price is based on ceteris paribus assumptions.

- That is, we only allow the own price of commodity to vary with demand with everything else held constant at their pre-assigned values.
- In other words, when we try to capture the relationship between quantity demanded of a good and its own price, we ignore all other influences on the demand for that good (like prices of substitute goods, complementary goods, the households income level, tastes and so on).
- The graph of the demand function on a two dimensional Euclidean space with horizontal axis measuring the quantity demanded and vertical axis measuring the price, we get the demand curve for the good.
- Since the normal behaviour is one of an inverse relationship between quantity demanded of a good and its own price, the demand curve for a good will be downward sloping.
- For convenience we can assume the demand curve to be a downward sloping straight line.
- This is illustrated in Fig. 2.1.

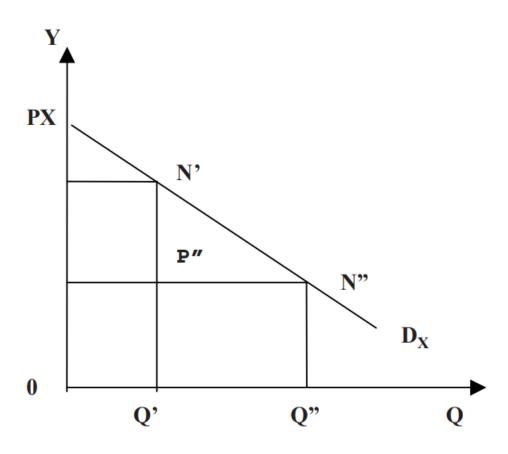


Fig. 2.1: We have shown price of milk in rupees on vertical axis and quantity in litres on the horizontal axis. The consumer buys OQ' quantity at OP' price. As the price falls to OP", she is willing to buy OQ" amount. N' and N" show there are two situations on the demand curve DX.

- In the figure the quantity demanded of good X (milk) is plotted on the horizontal axis (abscissa) and the price of good X on the vertical axis (ordinate).
- The quantity demanded is measured in physical units of the good. In case of milk, physical unit is litres. Price of the good is, however, expressed in monetary units (in rupees or paise).
- In case of milk, the price of milk would read as Rs. 8 per litre or Rs. 12 per litre etc. A downward sloping demand curve for good X would imply that when price is lowered, the quantity demanded would tend to increase.
- And when the price is raised, the quantity demand would tend to be reduced.
- In the diagram when price is OP1 the consumers of good X operate at point N1, demanding (purchasing or buying) OQ1 quantity of good X.
- When price falls to OP11, the consumers operate at point N11 on the demand curve Dx, demanding OQ11 quantity of X. A lowering of price induces a larger quantity of it being demanded.
- This is supposed to be a commonly observed aspect of consumer behaviour. As to the question why demand curve is downward sloping, A downward sloping demand curve reflects the law of demand.
- This law says that, other things remaining the same, a consumer (or, in general consumers) would tend to buy more when price falls and buy less when price rises.

SUPPLY

- By supply of a good we mean a producer's desire to produce (manufacture) a good backed up by her capacity to produce as determined by technological knowledge and command over employable resources.
- A commodity (good) can be supplied if and only if it is produced. The concept of supply is, therefore, related to the concept of production

- How much of a good gets produced and supplied will depend on many factors. Some of these
 factors are the own price of the good, the prices of inputs used to produce the goods, the
 technology used etc.
- Of these factors the own price of the good is an important factor determining how much of it will be supplied.
- The supply function captures that relationship. The general form of supply function of a good is the following:

$$Q_{x}^{s} = F(P_{X})$$

- Where X is the good. Recall that a function expresses a cause-effect relationship.
- The above relationship indicates that the quantity supplied varies directly with the price of the good under consideration and the relationship is one of a positive correlation between quantity supplied and own price.
- As price of good X rises the quantity supplied tends to increase. And when own price of good X decreases the quantity supplied tends to decline.
- This is supposed to be a normal behaviour on the part of suppliers. Of course, such a relationship is based on ceteris paribus assumption.
- All other influences like technology, prices of inputs and so on are held constant.

- A supply schedule of good X indicates the quantities that will be supplied by potential sellers at its prevailing prices.
- In other words, it lists the various amounts of a good that potential suppliers will put up for sale at the alternate prices prevailing.
- A supply schedule will look something like the following:

Supply Schedule

Price of Good X (In Rs.)	Quantity of Good X Supplied (In the physical unit of the good)
9	100
8	80
7	75
6	65
5	45

• When the above schedule is plotted on a two dimensional graph with price of good X measured on the ordinate and the quantity supplied on the abscissa, we get the supply curve of good X which will be upward sloping. This is shown below (Fig. 2.2).

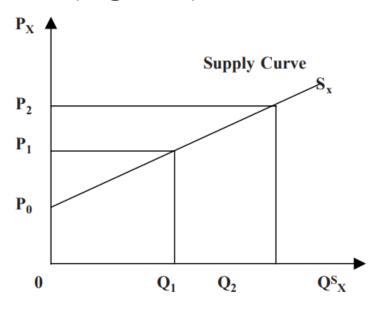
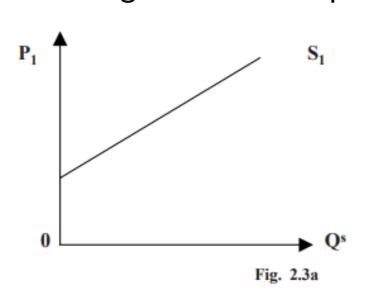
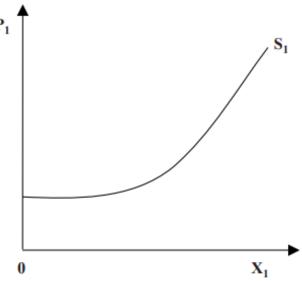


Fig. 2.2 At OP0 price, the producer does not supply anything. As price rises to OP, she will be ready to supply OQ1. A further rise in price to OP2 makes the producers willing to supply OQ2 quantity.

- The supply curve can be linear (straight line) or non-linear (curve). In the diagram below we have depicted both the cases.
- An upward sloping supply curve implies that as price rises the quantity supplied tends to increase.
- A higher price induces a larger supply. The supply curve or a market supply curve is an aggregate of individual supply curves.

• Since the supply curve is the graph of supply function, it is also based on ceteris paribus assumption, and considers only the relationship between quantity supplied of a good and own price





- Note that in defining the concepts of demand and supply the stress is on the word potential.
- Each buyer or seller comes to the market with her notion of how much to buy or sell.
- If some buyers have made plans to buy at a given price will leave the market if price of the good rises.
- They will be priced out of the market. Similarly, if market price is low, those sellers who
 had made plans to sell at a higher price, will be priced out of the market.
- Hence, the emphasis is on the word potential in the definitions of demand and supply.
- Like the demand curve, the supply curve also indicates the planned (expected) behaviour of sellers (or, producers-cum- sellers).
- At any given price it would indicate the maximum quantity produced and supplied.
- To put it in a different way, if a given quantity of a good is to be produced and supplied, the supply curve would indicate the minimum price of the good expected by each seller (in order to cover the cost of production and to earn a normal rate of profit)

PRICE IN ECONOMICS

- In economics we always talk of prices, the price of wheat, the price of milk, the price of a car, prices of vegetables, input prices like wages, interest and rent. If a commodity has a market it will have a price associated with it.
- A price can be expressed in one of the following two ways. Firstly, we have price expressed in terms of a numeraire commodity (NC).
- Suppose, we choose gold as the numeraire commodity, then the price of a commodity, say, wheat, is the number of units of gold (of a particular specification), which would exchange for one unit of the commodity (that is, one kilogram of wheat).
- It is to be noted that the price of gold in terms of itself always equals one. In theory any commodity can be chosen as a numeraire. However, in practice the choice would depend on a number of attributes, which a numeraire commodity must possess.
- They are: the commodity chosen must be finely divisible, must not be bulky, must not be subject to physical decay, and must be easily transportable.
- It must be noted that the numeraire commodity is not intended to perform the function of money as a medium of exchange, but supposed to function only as a unit of account, in terms of which all values are expressed and measured.
- Expressed in terms of a numeraire, prices are commodity rates of exchange-the rate at which each commodity exchanges per unit of the numeraire good. Prices are ratio of the form Xg/Xi, where Xg is the units of gold (the NC) and Xi is the units of commodity i.
- As rates of exchange, prices are measured in the physical units of the commodities.

PRICE IN ECONOMICS

- The second way in which prices can be expressed is in terms of an Abstract Unit of account used in a bookkeeping sense.
- It has no physical substance attached to it (unlike the first case).
- When a unit of commodity is sold, certain number of units of account is credited to one's account, while if a unit of commodity is bought, the same number of units of account is debited from one's account.
- The price of the commodity is then the number of units of account credited or debited per unit of the commodity.
- In the Indian context Rupee is such an abstract unit of account.
- Price of a commodity will then be the number of Rupees per physical unit of the commodity.
- "Notes and coins have no intrinsic worth, but are simply tokens representing number of units of account which are passed around directly and form part of the credit side of one's account.
- As between the two ways of expressing prices the second way represents the way prices are expressed in reality" (Gravelle and Rees, Micro Economic Theory, 2nd Edition)

EQUILIBRIUM OR DISEQUILIBRIUM

- As with many other concepts in economics, the concept of equilibrium is also borrowed from physics, to be precise, mechanics.
- Equilibrium is described to be a situation where a body subjected to actions of opposing forces attains a position of rest.
- That is, the state when opposing forces are in balance. In the same way, in economics equilibrium is said to exist in a market where the forces operating from the side of potential buyers exactly offsets the forces operating from the side of potential sellers.
- This means that when quantity supplied balances (matches) the quantity demanded, the market for that commodity reaches equilibrium.
- Once again, for equilibrium to exist, opposing forces must be in balance.
- The price at which demand equals supply is the **equilibrium price** and the corresponding quantity traded, the **equilibrium quantity** for that price.
- Such an equilibrium is a static concept, describes the position of the market when it is at rest. So long as the factors on which demand and supply depend do not change, equilibrium will be maintained period after period.
- This is one definition of equilibrium, describing it as a position of rest.

EQUILIBRIUM OR DISEQUILIBRIUM

- There is another concept of equilibrium, which is used in neo-classical economics, that is, equilibrium defined as a chosen position of individuals (the participants in a market transactions).
- As Gravelle & Rees put it, "Equilibrium as being that state in which economic agents find themselves in those positions in which they wish to be" (Gravelle & Rees).
- According to this definition, a market is in equilibrium when at a given price all economic agents can buy what they had planned to buy and all sellers can sell what they had planned to sell and the chosen position of buyers and sellers coincide.
- It is quite possible that the two ways of defining equilibrium may or may not coincide.
- In the demand-supply model of price determination under perfect competition that we
 will be developing later, the point where demand schedule and supply schedule
 intersects is the point where both the definitions of equilibrium will coincide.
- In static micro theory we will be concerned with equilibrium configurations of markets.

EQUILIBRIUM OR DISEQUILIBRIUM

- When the market is not in equilibrium, it must be in disequilibrium, which reflects a situation in which demand and supply forces are not in balance.
- What the buyers plan to buy do not match what the sellers plan to sell.
- So the market is not cleared. Either unsold stocks of inventories remain or a shortage develops which requires interventions by authorities with previously accumulated stocks.
- When the market is in a disequilibrium situation, the market adjustment process or corrective process must be brought into the picture, to analyse how the situation can be corrected.
- Such an analysis must be dynamic in nature, i.e., it involves movement of the market through time. When the market is not in equilibrium the role of economic agents and decision-makers become very important and relevant. In actual situation, equilibrium is never attained.
- As the market tends towards equilibrium, disturbances occur due to dynamic changes always taking place in the economy, which prevents equilibrium being attained.
- Hence, disequilibrium analysis is more relevant.
- However, equilibrium analysis is simpler and easier to handle.

Economics Basics

Scarcity

- Our resources are limited. At any one time, we have only so much land, so many factories, so much oil, so many people. But our wants, our desires for the things that we can produce with those resources, are unlimited.
- We would always like more and better housing, more and better education—more and better of practically everything.
- If our resources were also unlimited, we could say yes to each of our wants—and there would be no economics.
- Because our resources are limited, we cannot say yes to everything. To say yes to one thing requires that we say no to another. Whether we like it or not, we must make choices.
- Our unlimited wants are continually colliding with the limits of our resources, forcing us to pick some activities and to reject others.
- Scarcity is the condition of having to choose among alternatives.
- A **scarce good** is one for which the choice of one alternative use of the good requires that another be given up.

Scarcity

- Consider a parcel of land. The parcel presents us with several alternative uses. We could build a house on it. We could put a gas station on it. We could create a small park on it. We could leave the land undeveloped in order to be able to make a decision later as to how it should be used.
- Suppose we have decided the land should be used for housing. Should it be a large and expensive house or several modest ones? Suppose it is to be a large and expensive house. Who should live in the house? If the Lees live in it, the Nguyens cannot.
- There are alternative uses of the land both in the sense of the type of use and also in the sense of who gets to use it. The fact that land is scarce means that society must make choices concerning its use.
- Virtually everything is scarce. Consider the air we breathe, which is available in huge quantity at no charge to us. Could it possibly be scarce?
- The test of whether air is scarce is whether it has alternative uses. What uses can we make of the air? We breathe it. We pollute it when we drive our cars, heat our houses, or operate our factories. In effect, one use of the air is as a garbage dump.
- We certainly need the air to breathe. But just as certainly, we choose to dump garbage in it. Those two uses are clearly alternatives to each other. The more garbage we dump in the air, the less desirable—and healthy—it will be to breathe.
- If we decide we want to breathe cleaner air, we must limit the activities that generate pollution. Air is a scarce good because it has alternative uses.

Scarcity

- Not all goods, however, confront us with such choices.
- A **free good** is one for which the choice of one use does not require that we give up another.
- One example of a free good is gravity. The fact that gravity is holding you to the earth does not mean that your neighbor is forced to drift up into space! One person's use of gravity is not an alternative to another person's use.
- There are not many free goods.
- Outer space, for example, was a free good when the only use we made of it was to gaze at it. But now, our use of space has reached the point where one use can be an alternative to another.
- Conflicts have already arisen over the allocation of orbital slots for communications satellites. Thus, even parts of outer space are scarce. Space will surely become scarcer as we find new ways to use it.
- Scarcity characterizes virtually everything. Consequently, the scope of economics is wide indeed.

Scarcity and the Fundamental Economic Questions

- The choices we confront as a result of scarcity raise three sets of issues. Every economy must answer the following questions:
- **1.What should be produced?** Using the economy's scarce resources to produce one thing requires giving up another. Producing better education, for example, may require cutting back on other services, such as health care. A decision to preserve a wilderness area requires giving up other uses of the land. Every society must decide what it will produce with its scarce resources.
- **2.How should goods and services be produced?** There are all sorts of choices to be made in determining how goods and services should be produced. Should a firm employ a few skilled or a lot of unskilled workers? Should it produce in its own country or should it use foreign plants? Should manufacturing firms use new or recycled raw materials to make their products?
- **3.For whom should goods and services be produced?** If a good or service is produced, a decision must be made about who will get it. A decision to have one person or group receive a good or service usually means it will not be available to someone else. For example, representatives of the poorest nations on earth often complain that energy consumption per person in the United States is many *times* greater than energy consumption per person in the world's scores of poorest countries. Critics argue that the world's energy should be more evenly allocated. Should it? That is a "for whom" question.
- Every economy must determine what should be produced, how it should be produced, and for whom it should be produced. We shall return to these questions again and again.

Opportunity Cost

- It is within the context of scarcity that economists define what is perhaps the most important concept in all of economics, the concept of opportunity cost.
- Opportunity cost is the value of the best alternative forgone in making any choice.
- The opportunity cost to you of reading the remainder of this chapter will be the value of the best other use to which you could have put your time.
- If you choose to spend \$20 on a potted plant, you have simultaneously chosen to give up the benefits of spending the \$20 on pizzas or a paperback book or a night at the movies.
- If the book is the most valuable of those alternatives, then the opportunity cost of the plant is the value of the enjoyment you otherwise expected to receive from the book.

Opportunity Cost

- The concept of opportunity cost must not be confused with the purchase price of an item.
- Consider the cost of a college or university education.
- That includes the value of the best alternative use of money spent for tuition, fees, and books. But the most important cost of a college education is the value of the forgone alternative uses of time spent studying and attending class instead of using the time in some other endeavor.
- Students sacrifice that time in hopes of even greater earnings in the future or because they place a value on the opportunity to learn. Or consider the cost of going to the doctor.
- Part of that cost is the value of the best alternative use of the money required to see the doctor. But the cost also includes the value of the best alternative use of the time required to see the doctor.
- The essential thing to see in the concept of opportunity cost is found in the name of the concept. Opportunity cost is the value of the best opportunity forgone in a particular choice. It is not simply the amount spent on that choice.