UNIT – 1 Introduction of Economics

1:1What Is Economics?

Economics is a social science concerned with the production, distribution, and consumption of goods and services. It studies how individuals, businesses, governments, and nations make choices about how to allocate resources. Economics focuses on the actions of human beings, based on assumptions that humans act with rational behavior, seeking the most optimal level of benefit or utility. The building blocks of economics are the studies of labor and trade. Since there are many possible applications of human labor and many different ways to acquire resources, it is the task of economics to determine which methods yield the best results.

- Economics is a social science that studies how individuals, governments, firms, and nations make choices on allocating limited resources to satisfy their unlimited wants.
- **Adam Smith (wealth definition of economics)** define economics is a study of wealth, a subject dealing with producing wealth and using it.
- **Alfred Marshall (welfare definition of economics)** defined economics as a study of mankind in the ordinary business of life. It inquires how he gets his income and how he uses it.
- **Lionel Robbins** defines Economics as a science which studies human behavior as a relationship between ends and scarce means which have alternative uses.
- **Paul Samuelson** define economics is the study of how men and society choose, with or without the use of money, to employ limited productive resources which could have alternative uses, to produce various commodities over time, and distribute them for consumption, now and in the future among various people and groups of society.
- Two major factors are responsible for the emergence of economic problems:
  1. The existence of unlimited human wants and
  2. The scarcity of available resources.
- Economics deals with how the numerous human wants are to be satisfied with limited resources.
- Thus, the science of economics centers on **Unlimited wants - effort - satisfaction**.

1:2 Nature of Economics: Economics as a Science and an Art

Economics as a Science:

Before we start discussing whether economics is science or not, it becomes necessary to have a clear idea about science. Science is a systematic study of knowledge and fact which develops the correlation-ship between cause and effect. Science is not only the collection of facts, according to Prof. Poincare, in reality, all the facts must be systematically collected, classified and analyzed.

There are following characteristics of any science subject, such as;

(i) It is based on systematic study of knowledge or facts;

(ii) It develops correlation-ship between cause and effect;

(iii) All the laws are universally accepted

(iv) All the laws are tested and based on experiments;

(v) It can make future predictions;

(vi) It has a scale of measurement.

Economics as an Art:

According to T.K. Mehta, 'Knowledge is science, action is art.' According to Pigou, Marshall etc., economics is also considered as an art. In other way, art is the practical application of knowledge for achieving particular goals. Science gives us principles of any discipline however, art turns all these principles into reality. Therefore, considering the activities in economics, it can claimed as an art also, because it gives guidance to the solutions of all the economic problems.

Therefore, from all the above discussions we can conclude that economics is neither a science nor an art only. However, it is a golden combination of both. According to Cossa, science and art are complementary to each other. Hence, economics is considered as both a science as well as an art.

Microeconomics vs. Macroeconomics: An Overview

Economics is divided into two categories: microeconomics and macroeconomics. Microeconomics is the study of individuals and business decisions, while macroeconomics looks at the decisions of countries and governments.

Microeconomics

Microeconomics is the study of decisions made by people and businesses regarding the allocation of resources, and prices at which they trade goods and services. It considers taxes, regulations and government legislation.

Microeconomics focuses on supply and demand and other forces that determine price levels in the economy. It takes a bottom-up approach to analyzing the economy. In other words, microeconomics tries to understand human choices, decisions and the allocation of resources.

Having said that, microeconomics does not try to answer or explain what forces should take place in a market. Rather, it tries to explain what happens when there are changes in certain conditions.

For example, microeconomics examines how a company could maximize its production and capacity so that it could lower prices and better compete. A lot of microeconomic information can be gleaned from company financial statements.

Microeconomics involves several key principles, including (but not limited to):

- **Demand, Supply and Equilibrium**: Prices are determined by the law of supply and demand. In a perfectly competitive market, suppliers offer the same price demanded by consumers. This creates economic equilibrium.
- **Production Theory**: This principle is the study of how goods and services are created or manufactured.

- **Costs of Production**: According to this theory, the price of goods or services is determined by the cost of the resources used during production.
- **Labor Economics**: This principle looks at workers and employers, and tries to understand patterns of wages, employment and income.

Macroeconomics

Macroeconomics, on the other hand, studies the behavior of a country and how its policies impact the economy as a whole. It analyzes entire industries and economies, rather than individuals or specific companies, which is why it's a top-down approach. It tries to answer questions such as, "What should the rate of inflation be?" or "What stimulates economic growth?"

Macroeconomics examines economy-wide phenomena such as gross domestic product (GDP) and how it is affected by changes in unemployment, national income, rates of growth and price levels.

Macroeconomics analyzes how an increase or decrease in net exports impacts a nation's capital account, or how gross domestic product (GDP) is impacted by the unemployment rate.

Macroeconomics focuses on aggregates and econometric correlations, which is why governments and their agencies rely on macroeconomics to formulate economic and fiscal policy. Investors who buy interest-rate sensitive securities should keep a close eye on monetary and fiscal policy. Outside a few meaningful and measurable impacts, macroeconomics doesn't offer much for specific investments.

John Maynard Keynes is often credited as the founder of macroeconomics, as he initiated the use of monetary aggregates to study broad phenomena. Some economists dispute his theories, while many Keynesians disagree on how to interpret his work.

Scope of Economics

As regards the scope of business economics, no uniformity of views exists among various authors. However, the following aspects are said to generally fall under business economics.

1. Demand Analysis and Forecasting

2. Cost and production Analysis.

3. Pricing Decisions, policies and practices.

4. Profit Management.

5. Capital Management.

These various aspects are also considered to be comprising the subject matter of business economic.

1. Demand Analysis and Forecasting:

A business firm is an economic organisation which transforms productive resources into goods to be sold in the market. A major part of business decision making depends on accurate estimates of demand. A demand forecast can serve as a guide to management for maintaining and strengthening market position and enlarging profits. Demands analysis helps identify the various factors influencing the product demand and thus provides guidelines for manipulating demand. Demand analysis and forecasting provided the essential basis for business planning and occupies a strategic place in managerial economic. The main topics covered are: Demand Determinants, Demand Distinctions and Demand Forecast

2. Cost and Production Analysis:

A study of economic costs, combined with the data drawn from the firm's accounting records, can yield significant cost estimates which are useful for management decisions. An element of cost uncertainty exists because all the factors determining costs are not known and controllable. Discovering economic costs and the ability to measure them are the necessary steps for more effective profit planning, cost control and sound pricing practices. Production analysis is narrower, in scope than cost analysis. Production analysis frequently proceeds in physical terms while cost analysis proceeds in monetary terms. The main topics covered under cost and production analysis are: Cost concepts and classification, Cost-output Relationships, Economics and Diseconomies of scale, Production function and Cost control.

3. Pricing Decisions, Policies and Practices:

Pricing is an important area of business economic. In fact, price is the genesis of a firm's revenue and as such its success largely depends on how correctly the pricing decisions are taken. The important aspects dealt with under pricing include. Price Determination in Various Market Forms, Pricing Method, Differential Pricing, Product-line Pricing and Price Forecasting.

4. Profit Management:

Business firms are generally organised for purpose of making profits and in the long run profits earned are taken as an important measure of the firm's success. If knowledge about the future were perfect, profit analysis would have been a very easy task. However, in a world of uncertainty, expectations are not always realised so that profit planning and measurement constitute a difficult area of business economic. The important aspects covered under this area are : Nature and Measurement of profit, Profit policies and Technique of Profit Planning like Break-Even Analysis.

5. Capital Management:

Among the various types business problems, the most complex and troublesome for the business manager are those relating to a firm's capital investments. Relatively large sums are involved and the problems are so complex that their solution requires considerable time and labour. Often the decision involving capital management are taken by the top management. Briefly Capital management implies planning and control of capital expenditure. The main topics dealt with are: Cost of capital Rate of Return and Selection of Projects.

Theory of Demand and Supply

- Supply and demand are perhaps one of the most fundamental concepts of economics and it is the backbone of a market economy.
- **Demand**: The quantity demanded is the amount of a product people are willing to buy at a certain price.
- The relationship between price and quantity demanded is known as the **demand relationship**.
- **Supply**: The quantity supplied refers to the amount of a certain goods producers are willing to supply when receiving a certain price.
- The correlation between price and how much goods or service is supplied to the market is known as the supply relationship**.**
- Price, therefore, is a reflection of supply and demand.

Determinants of Demand

- The demand for any product or service at a given point of time is affected by the following factors:
  1) **Price**: Price is a basic factor which affects demand as price decreases demand will increases and if price increases then demand will decreases.
  2) **Income**: It is obvious that when incomes of a person will increase then demand will also increase.
  3) **Demography (Population)**: As population increase demand will also increase.

4) **Test and Preference of consumers**: If a person like something then he will demand more and if he/she doesn't like it then refuse to buy.
5) **Expectations of future price**: If the consumer expects the rise in price then he/she will demand more at this time and vice versa.
6) **Prices of related commodities**: The demand is also affected by the prices of the substitute products.

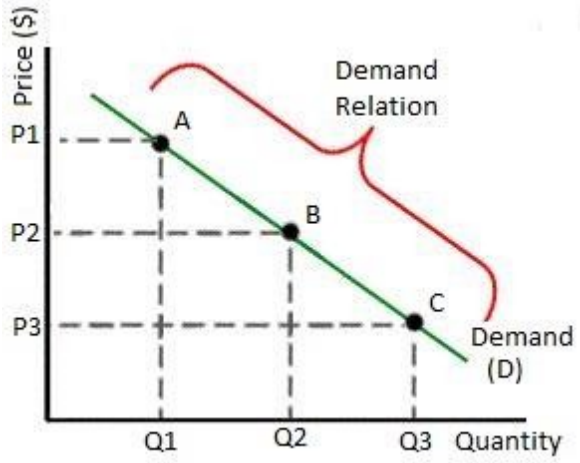
Determinants of Supply

- The supply of any product or service at a given point of time is affected by the following factors:
  1) **Price**: If the price will increase then the supplier will willing to supply more as profit is increases and vice versa.
  2) **The Strategy of the supplier**: The strategies followed by the suppliers determine the quantity released at different prices.
  3) **Numbers of suppliers**: The numbers of suppliers represents the market structure viz. monopoly or competition which becomes the basis for the volume of supply.
  4) **Government policies**: The government policy of taxation, price controls, incentives to buy consumer and industrial products affects the supply of commodities.
  5) **Technology development and adoption**: The technological advancement facilitates large production at low cost. This factor affects both the consumers and the suppliers.
  6) **Future expectations**: The future expectations about price rice or price fall prompts the supplier to restrict or to release the supply respectively.
  7) **Natural calamities**: the natural calamity like flood, drought, cyclone, earthquake etc. destroys the supply. Thus the quantity supplied is determined by these factors.

The Law of Demand

- The law of demand states that, if all other factors remain equal, the higher the price of goods, the fewer people will demand that goods.
- In other words, the higher the price, the lower the quantity demanded.
- The amount of goods that buyers purchase at a higher price is less because as the price of a goods goes up, so does the opportunity cost of buying those goods.

- As a result, people will naturally avoid buying a product that will force them to forget the consumption of something else they value more.
- The chart below shows that the curve is a downward slope.

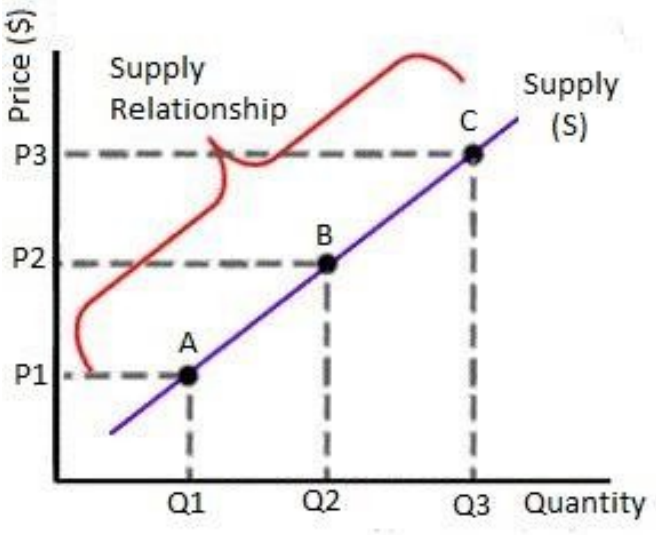


- A, B and C are points on the demand curve.
- Each point on the curve reflects a direct correlation between quantities demanded (Q) and price (P).
- So, at point A, the quantity demanded will be Q1 and the price will be P1, and so on.
- The demand relationship curve illustrates the negative relationship between price and quantity demanded.
- The higher the price of a goods the lower the quantity demanded (A), and the lower the price, the more the goods will be in demand (C).

The Law of Supply

- Like the law of demand, the law of supply demonstrates the quantities that will be sold at a certain price.
- But unlike the law of demand, the supply relationship shows an upward slope.
- Producers supply more at a higher price because selling more quantity at higher price increases revenue.
- A, B and C are points on the supply curve.
- Each point on the curve reflects a direct correlation between quantities supplied (Q) and price (P).

- At point B, the quantity supplied will be Q2 and the price will be P2, and so on.



Time and Supply

- Unlike the demand relationship, however, the supply relationship is a factor of time.
- Time is important to supply because suppliers must, but cannot always, react quickly to a change in demand or price.
- So it is important to try and determine whether a price change that is caused by demand will be temporary or permanent.
- Let's say there's a sudden increase in the demand and price for umbrellas in an unexpected rainy season.
- Suppliers may simply accommodate demand by using their production equipment more intensively.
- If, however, there is a climate change, and the population will need umbrellas year-round, the change in demand and price will be expected to be long term.
- Suppliers will have to change their equipment and production facilities in order to meet the long-term levels of demand.

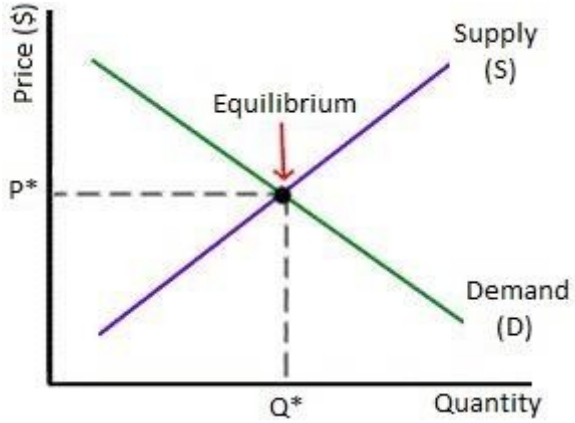
Supply and Demand Relationship

- According to the demand relationship, as demand increases, so does the price.
- Consequently, the rise in price should prompt more supply and increased supply will meet customer demand.
- Again price will fall as demand is decreasing.

Equilibrium

- When supply and demand are equal (i.e. when the supply function and demand function intersect) the economy is said to be at equilibrium.
- At this point, the quantity of goods being supplied is exactly the same as the quantity of goods being demanded.

- Thus, everyone (individuals, firms, or countries) is satisfied with the current economic condition.
- At the given price, suppliers are selling all the goods that they have produced and consumers are getting all the goods that they are demanding.



- As you can see on the chart, equilibrium occurs at the intersection of the demand and supply curve.
- At this point, the price of the goods will be P* and the quantity will be Q*.
- These figures are referred to as equilibrium price and quantity.
- In the real market, equilibrium can only ever be reached in theory.
- So the prices of goods and services are constantly changing in relation to changes in demand and supply.

Elasticity of Demand

Income Elasticity

- **Income elasticity** of demand is an economics term that refers to the sensitivity of the quantity demanded of a certain product in response to a change in consumer incomes.

$$\textbf{Income Elasticity of Demand} = \frac{\%\textbf{Change in Quantity Demanded}}{\%\textbf{Change in Income}}$$

- E.g. if the quantity demanded of a goods increases by 15% in response to a 10%increase in income, the income elasticity of demand would be 25% / 10% = 2.5.
- The quantity demanded of normal necessities will increase with income, but at a slower rate than luxury goods.
- This is because consumers, rather than buying more of the necessities, will likely use their increased income to purchase more luxury goods and services.

- The quantity demanded of luxury goods is very sensitive to changes in income.
- Low-grade goods have a negative income elasticity of demand - the quantity demanded of inferior goods falls as incomes rise.

Price Elasticity

- A measure of the relationship between changes in the quantity demanded of particular goods and a change in its price.

$$\textbf{Price Elasticity of Demand} = \frac{\%\textbf{Change in Quantity Demanded}}{\%\textbf{Change in Price}}$$

- E.g. if the quantity demand of a goods increases 15% in response to a 10% decrease in price, the price elasticity of demand would be 15% / 10% = 1.5.
- The degree to which the quantity demand of goods changes in response to a change in price can be influenced by a number of factors.
  1. The number of close substitutes.
  2. Type of goods whether it is a necessity or luxury (necessities tend to have inelastic demand while luxuries are more elastic).
- Businesses evaluate price elasticity of demand for various products to help predict the impact of a pricing on product sales.

Cross Elasticity / Cross-Price Elasticity

- **Cross elasticity** of demand captures the responsiveness of the quantity demanded of one goods to a change in the price of other goods.

$$\textbf{Cross Elasticity } (\boldsymbol{E_{A,B}}) = \frac{\%\textbf{Change in Quantity Demanded of good A}}{\%\textbf{Change in Price of good B}}$$

- The cross-price elasticity may be a positive or negative value, depending on whether the goods are complements or substitutes.
- If two products are complements, an increase in demand for one is accompanied by an increase in the quantity demanded of the other.
- E.g. an increase in demand for cars will lead to an increase in demand for fuel.
- The value of the cross-price elasticity for complementary goods will thus be negative.
- A positive cross-price elasticity value indicates that the two goods are substitutes.
- For substitute goods, as the price of one goods rises, the demand for the substitute goods increases.
- E.g. if the price of coffee increases, consumers may purchase less coffee and more tea.
- Conversely, the demand for a substitute goods falls when the price of other goods is

decreased.

- In the case of perfect substitutes, the cross elasticity of demand will be equal to positive infinity.