Principles of Economics and Management
(PEM)
GTU # 3140709

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Unit-1

Introduction to Economics

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Outline

- Introduction to Economics
    - Definitions, Scope and Nature
    - Difference between Microeconomics and Macroeconomics
- Theory of Demand & Supply
    - Meaning and Determinants
    - Law of Demand and Supply
    - An equilibrium between Demand & Supply
- Elasticity
    - Elasticity of Demand
        - Price Elasticity
        - Income Elasticity
        - Cross Elasticity
        - Promotional Elasticity

What is Economy? and What is Economics?

Economy

- The state of a country or region in terms of
  - Production and Consumption of Goods and Services
  - Supply (flow) of Money

Economics

- Economics is the science that studies economic activities.
- It is understanding of economic activities that govern the **production, distribution,** and **consumption** of **goods** and **services** in an economy.
- The term Economics has been derived from the Greek words
  - "Oikoon" means House and "nomos" means Management.
  - Which imply that economics is concerned with the management of Household Goods.

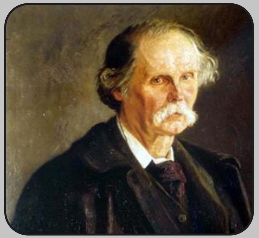
Definition of Economics

- It is hard to precisely define Economics because.
  - It is a continuously evolving science.
  - It is concerned with human behaviour in a dynamic and fast-changing society.
  - It has to face new problems and new phenomena that cope up over time.

Adam Smith (1723-1790) defined

"Economics is a study of Wealth (Assets)"

- A subject dealing with producing wealth and using it.



Alfred Marshall (1723-1790) defined

"Economics as a study of Mankind (Humanity) in the ordinary business of life"

- It inquires how he gets his income and how he use it.

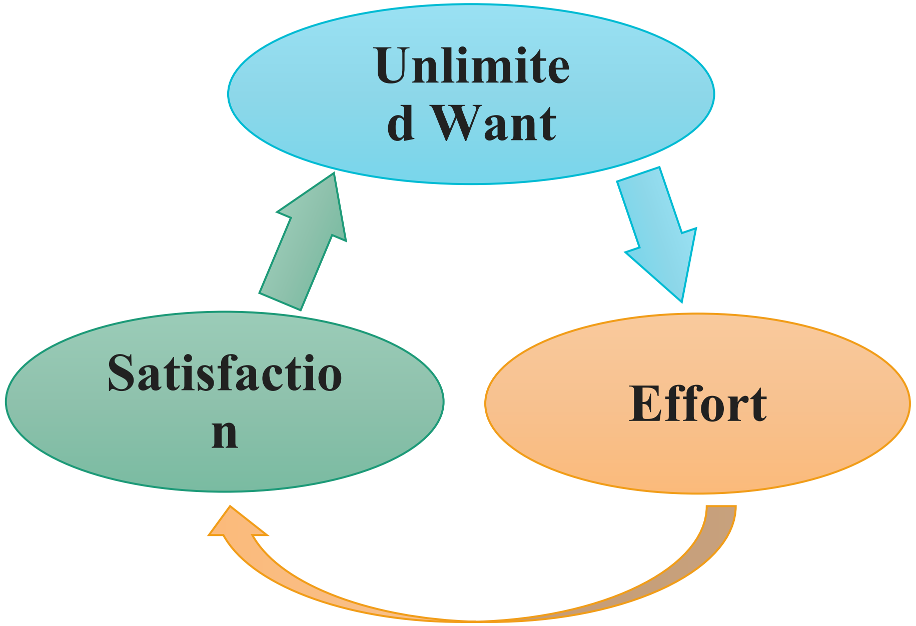
Lionel Robbins (1898-1984) defined

"Economics as a science which studies human behavior as a relationship between ends (Unlimited Wants) and scarce means (Limited Resources) which have alternative uses"

Emergence of Economic Problems

- Responsible factors for the emergence of economic problems are:
  1. The existence of unlimited human wants.
  2. The scarcity of available resources.

Source: swaraj-karun.blogspot.com



- Economics deals with how the numerous (many) human wants are to be satisfied with limited resources.
- Thus, the science of economics centers on Unlimited Want - Effort - Satisfaction.

Scope of Economics

- Scope of Economics
  - Traditional Approach
    - 1. Consumption
    - 2. Production
    - 3. Exchange
    - 4. Distribution
    - 5. Public Finance
  - Modern Approach
    - 1. Microeconomics
    - 2. Macroeconomics

Traditional Approach

1. **Consumption**
   - The satisfaction of human wants through the use of goods and services is called consumption.

2. **Production**
   - Production would mean the creation of utility or producing things for satisfying human wants.

3. **Exchange**
   - Goods are produced not only for self-consumption but also for sales.
   - The process of buying and selling is called exchange.

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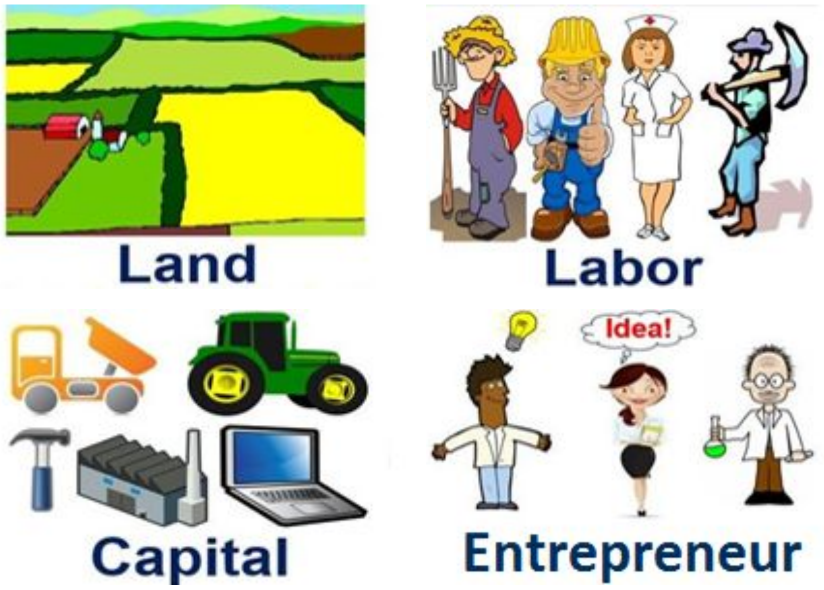
4. Distribution

- The process of determining rewards between production factors is called distribution.
- The production of any commodity requires four factors.
  - Land, Labor, Capital, and Entrepreneur.
- These factors are to be rewarded for their services.
  - The landowner gets rent.
  - The labor earns the salary.
  - The capitalist is given with interest.
  - The entrepreneur is rewarded with profit.



5. Public Finance

- It studies how the organization gets money and how it spends it.
- Thus, in public finance, we study about public revenue and public expenditure.
- E.g share Market, Income Taxes, etc…

Source: indianfolk.com

Scope of Economics

Scope of Economics

- **Traditional Approach**
  1. Consumption
  2. Production
  3. Exchange
  4. Distribution
  5. Public Finance
- **Modern Approach**
  1. Microeconomics
  2. Macroeconomics

Modern Approach

- Microeconomics give an idea of the individual's preference and welfare. Ex- Study of price-level of one firm.
- Macroeconomics give an idea of the functioning of the economy as a whole. E.g.- Study of national price-level.

Source: cosmolearning.org

Modern Approach (Cont.)

1. **Microeconomics**
   - Microeconomics analyses the economic behaviour of any particular decision-making unit such as a Household or a Firm.
   - Microeconomics studies,
     - The flow of economic resources from households to business firms.
     - The flow of goods and services from business firms to households.
   - It studies the behaviour of individual decision-making unit with regard to fixation of price and output.
   - Hence, Microeconomics is also called Price Theory.
2. **Macroeconomics**
   - Macroeconomics studies the behaviour of the economic system as a whole or all the decision-making units put together.
   - Macroeconomics deals with the behaviour of aggregates.
   - For Example, Total Employment, Gross National Product (GNP), National Income, National Price Level, etc.
   - Hence, Macroeconomics is also known as Income Theory.

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Microeconomics vs. Macroeconomics

Microeconomics	Macroeconomics
Micro means small.	Macro means large.
Study of the individual behavior of mankind like individual incomes, consumptions, savings, and investment.	Study of the nation as a large entity like national income, distribution, consumption, savings, and investments.
The objective of microeconomics is the maximization of individual satisfaction and minimization of costs.	The objective of macroeconomics is to govern the economic parameters of a nation like, growth in national income, distribution, employment, etc.
Judgments are based on demand and supply of individuals and business firms.	Judgments are based on aggregate demand and aggregate supply.

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Cont…

Microeconomics	Macroeconomics
An analysis is based on following assumptions: 1. A rational judgment of the individuals. 2. Keeping all variables except one under the analysis as static.	An analysis is based on following assumptions: 1. Aggregate demand of the nation. 2. Aggregate supply of resources and its allocation to meet the aggregate demand.
Dealing with the partial equilibrium confined to industry categories and percolated to individual firms.	Dealing with the equilibrium establishment for a nation, and also global equilibrium through global economic co-operation.
Attainment of equilibrium under the shorter time span with the periodic adjustments for correcting the disequilibrium.	Attainment of equilibrium under the long time span, the decision of today will produce the results after a long span of time.

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Nature of Economics

- Economics - A Science and An Art
  1. Economics is a science
  2. Economics is an art
  3. Economics is a social science
  4. Positive science
  5. Normative science

1. Economics is a science

- Science is a structured body of knowledge That traces the relationship between cause (reason) and effect.
- Applying these characteristics, we find that economics is a branch of knowledge where the various facts relevant to it can be systematically collected, classified and analyse.
- The motives of individuals and business firms can be very easily measured in terms of money.
- Thus, economics is a science.

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2. Economics is an art

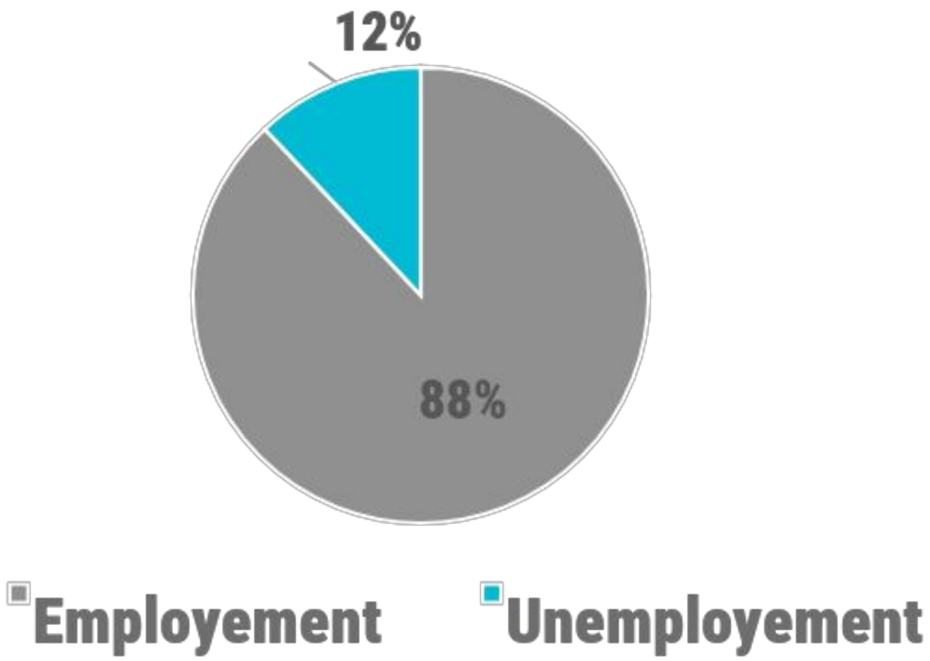
- An art is a system of rules for the accomplishment of a given task.
- A science teaches us to know.
- An art teaches us to do.
- Applying this definition, we find that economics offers us a practical solution to problems.
- Science and Art are complementary to each other and economics is both a science and an art.

3. Economics is a social science

- For production, we are working on materials that are drawn from all over the world and Produced goods to be sold all over the world.
- Which satisfies wants of the society.
- In this way, the process of satisfying wants of society is not only an individual process but also a social process.
- There for in economics, one has to study social behaviour.

4. Positive science

- Positive Science only describes what it is.
- It does not indicate what is good or what is bad for the society.
- It will simply provide the results of an economic analysis of a problem.
- E.g. 12% labor force in India was unemployed last year is a positive statement which could be verified by scientific measurement.



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5. Normative science

- Normative Science makes the distinction between good and bad.
- A positive statement is based on facts.
- A normative statement involves ethical (moral) values.
- E.g. 12% unemployment is too high.
- It also suggests how it can be rectified.
- It prescribes what should be done to promote human welfare.

Source: www.mortylefkoe.com

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Theory of Demand and Supply

Demand	Quantity of a product people are willing to buy at a certain price.
Demand Relationship	The relationship between price and quantity demanded.
Supply	Quantity of a certain goods producers are willing to supply when receiving a certain price.
Supply Relationship	Correlation between price and how much goods or service is supplied to the market.

Determinants of Demand

Price	• Price decreases demand will increase and if price increases then demand will decrease.
Income	• It is obvious that when incomes of a person will increase then demand will also increase.
Demography (Population)	• As population increases, demand will also increase.
Test and Preference of Consumers	• If a person like something, then he will demand more. • If he doesn’t like it, then he will refuse to buy.
Expectations of Future Price	• If the consumer expects the rise in price, then he will demand more at this time and vice versa.
Prices of Related Commodities	• The demand is also affected by the prices of the substitute and complementary products.

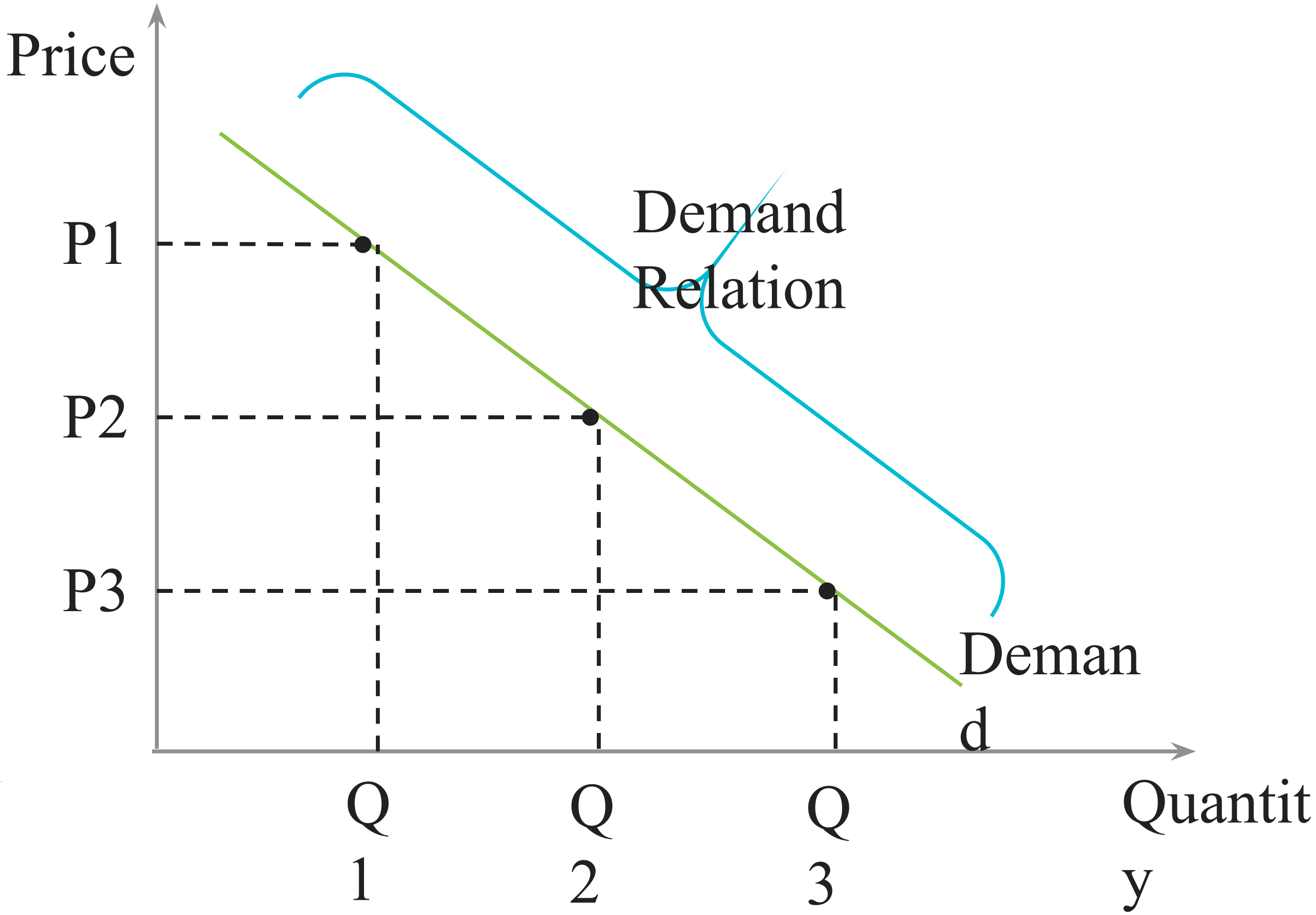
Determinants of Supply

Price	• If the price will increase, then the supplier will willing to supply more as profit increases and vice versa.
Strategy of the Supplier	• The strategies followed by the suppliers determine the quantity released at different prices.
Number of Supplier	• The number of suppliers represents the market structure. • Monopoly or Competition becomes the basis for supply.
Government Policies	• The government policy of taxation, price controls, incentives to buy consumer and industrial products affects the supply of commodities.
Technology Development and Adoption	• The technological improvement helps large production at low cost. This factor affects both the consumers and the suppliers.
Future Expectations	• The future expectations about price rise or price fall prompt the suppliers to restrict or to release the supply respectively.
Natural Calamities	• The natural calamity like flood, earthquake, etc. destroys the supply.

The Law of Demand

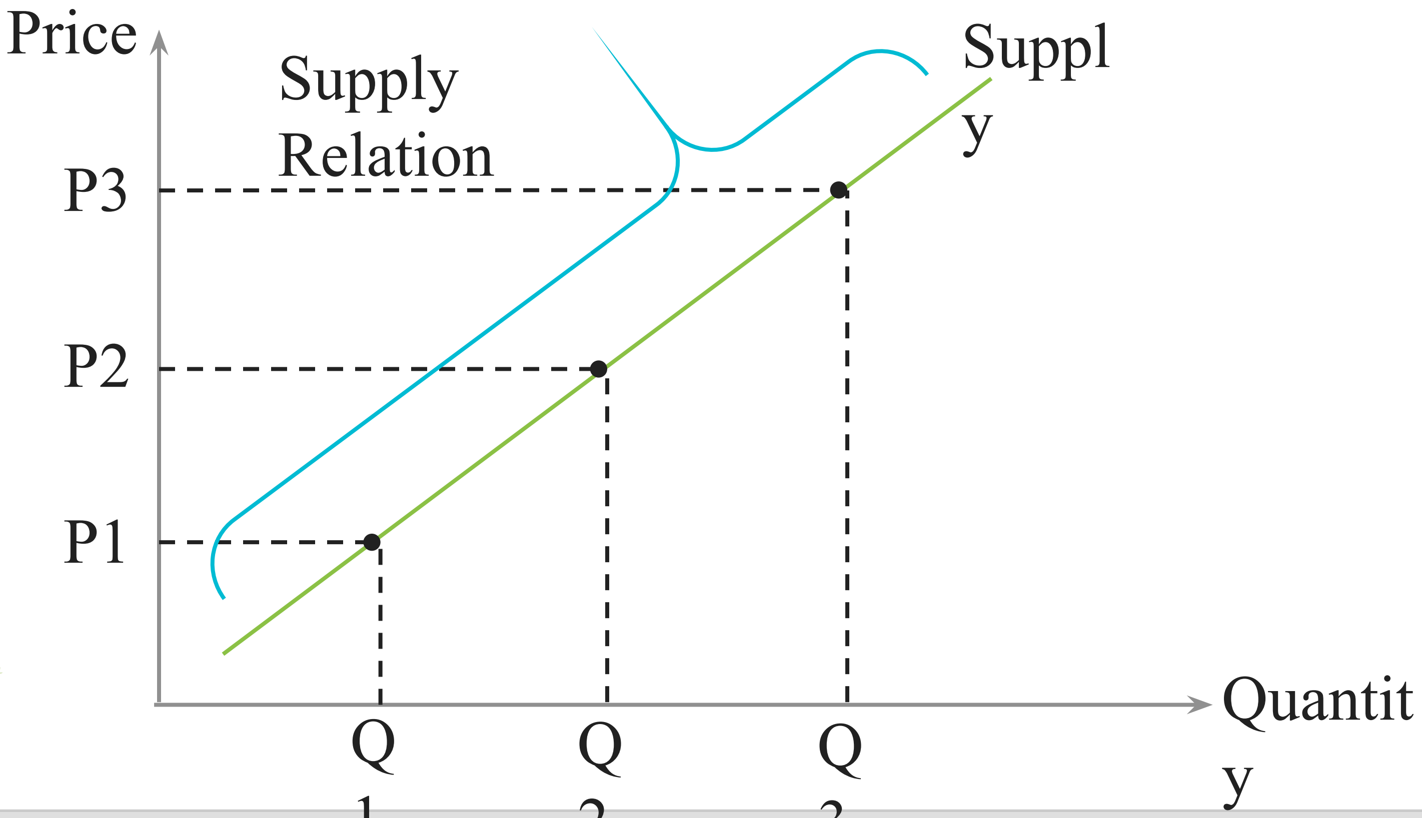
- The law of demand states that,

  "If all other factors remain equal, the higher the price of a good, the fewer people will demand that good"



The Law of Supply

- The law of supply demonstrates the quantities that will be sold at a certain price.
  - Producers supply more at a higher price because selling more quantity at higher price increases revenue.

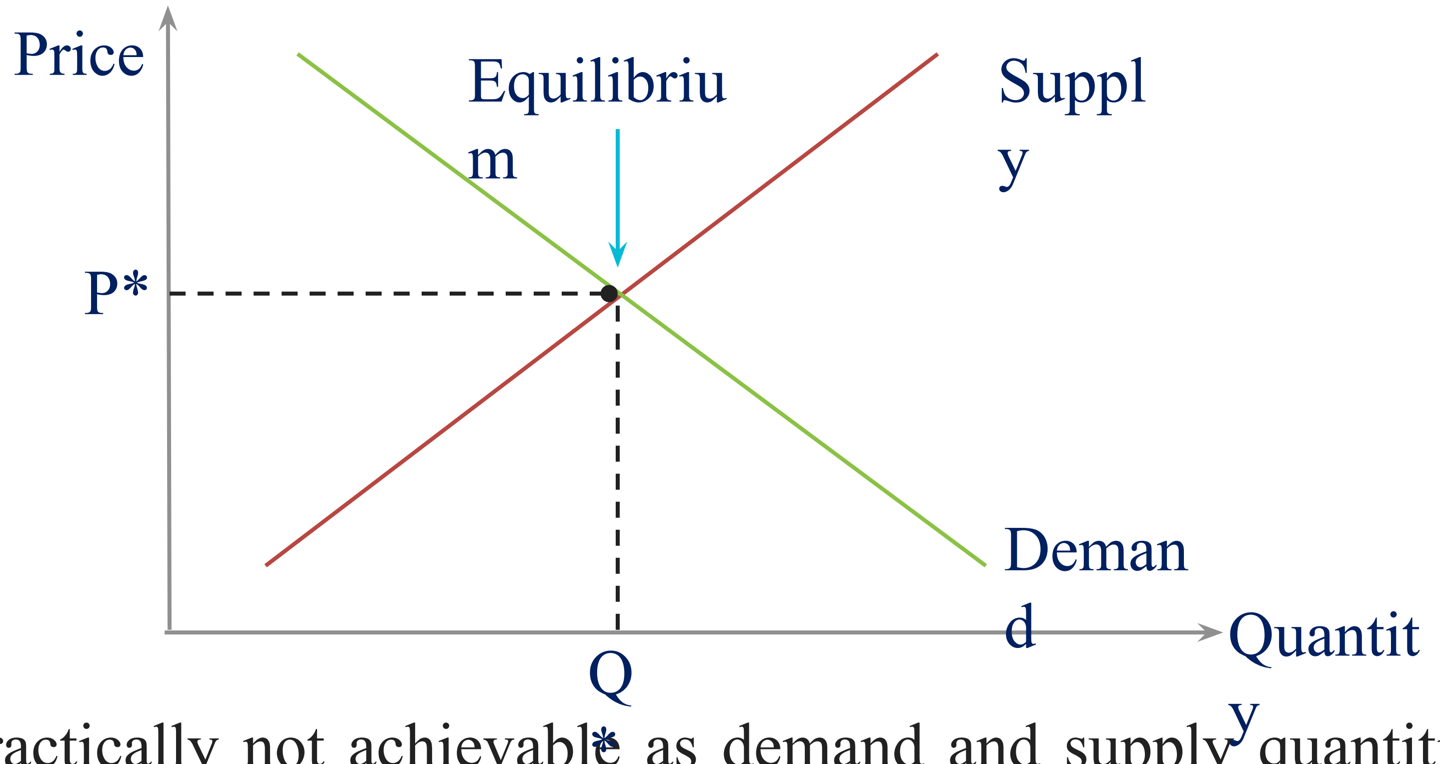


Supply and Demand Relationship

- 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

- A point where the quantity of goods being supplied is exactly the same as the quantity of goods being demanded.
  - i.e. Demand Quantity = Supply Quantity



- Equilibrium is practically not achievable as demand and supply quantities are continuously changing based on market needs.

Elasticity of Demand

- Demand elasticity is a measure of, how much the quantity demanded will change if another factor changes
- Elasticity greater than one is called elastic.
- Elasticity less than one is called inelastic.
- Elasticity equal to one is unit elastic.
- This is important for setting prices so as to maximize profit.

Types of “Elasticity of Demand”

Types of
“Elasticity of Demand”

1
Price Elasticity

2
Income Elasticity

3
Cross Elasticity /
Cross-Price Elasticity

4
Promotional Elasticity
of Demand

- $$\text{Price Elasticity of Demand} = \frac{\%\ \text{Change in Quantity Demanded}}{\%\ \text{Change in Price}}$$
- Factors affect price elasticity:
  - The number of close substitutes.
  - Type of goods whether it is a necessity or luxury.
    - Necessities tend to have inelastic demand
    - While luxuries are more elastic
  - For Example:

Food is necessity

Air Conditioner is luxury

2. Income Elasticity

- $$\text{Income Elasticity of Demand} = \frac{\text{\% Change in Quantity Demanded}}{\text{\% Change in Income}}$$
- The demand will increase with an increase in income at a slower rate for normal necessities than luxury goods.
- Low-grade goods have a negative income elasticity of demand.
- For Example:
  - If the quantity demanded of a goods increases by 15% in response to a 10% increase in income, then, income elasticity of demand would be **15% / 10% = 1.5**

3. Cross Elasticity / Cross-Price Elasticity

- Cross Elasticity $(E_{A,B}) = \dfrac{\text{\% Change in Quantity Demanded of Good "A"}}{\text{\% Change in Price of Good "B"}}$
- The cross-price elasticity may be a positive or negative value, depending on whether the goods are substitutes or complements.
- For Example:
  - Bournvita and Horlicks are Substitute Products
  - Car and Petrol are Complementary Products

4. Promotional Elasticity of Demand

- $$\text{Promotional Elasticity of Demand} = \frac{\%\ \text{Change in Sales Volume}}{\%\ \text{Change in Promotional Expenses}}$$
- Promotion by means of media or by giving some gifts, consumers will attract towards that product.
- For Example:
  - Promotion by gifts like Free Products, Gift Coupons, etc.
  - Promotion by media like Advertisements
- It is more affected when a market is of competition.
- Promotional Elasticity of Demand is:
  - Higher when a product is a luxury. - air condition
  - Medium when a product is of comfort. - air cooler
  - Lower when a product is of necessity. - fen

Source: www.shutterstock.com

GTU Questions

1. Define Economics? Why is the study of Economics useful for engineers?
2. Differentiate between Microeconomics and Macroeconomics.
3. What do you mean by elasticity? Explain the types of elasticity with examples.
4. Explain: Law of Demand and supply.
5. Write a detailed note on ‘Demand and supply Equilibrium’ with diagram.
6. Briefly discuss the determinants of supply for any commodity.

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Thank You

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