CHAPTER 1 INTRODUCTION TO MICROECONOMICS

INTRODUCTION

Microeconomics is a fundamental branch of economics that deals with the study of individual economic units such as consumers, firms, and markets. It examines how these entities make decisions regarding the allocation of limited resources to satisfy their needs and wants. By analysing the behaviour of individual agents, microeconomics helps us understand the dynamics of supply, demand, pricing, and production within an economy. One of the central aspects of microeconomics is addressing the central problems of an economy, which arise due to the scarcity of resources. Every economy, regardless of its size or structure, faces these three major and other questions:

- What to produce? This question deals with deciding which goods and services should be produced, considering limited resources and consumer preferences.
- How to produce? Once it is determined what will be produced, the next challenge is to decide the method of production—whether to use more labour or capital, and which technology is most efficient.
- For whom to produce? Finally, microeconomics addresses how the goods and services will be distributed among different sections of society, ensuring the allocation meets societal needs effectively.

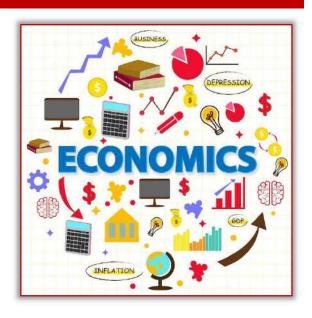
These central problems form the core of microeconomic analysis, guiding the decision-making processes of individuals, businesses, and governments.

TOPICS COVERED

- 1. What is microeconomics?
- 2. Central problems

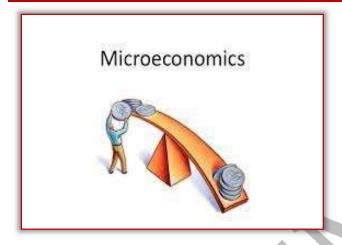
WHAT IS ECONOMICS?

- Economics is the study of how people, families, businesses, and even entire countries make choices about using resources (like money, time, or land) to meet their needs and wants. It's about deciding what to do with what we have because we can't have everything we want.
- Deciding how to allocate your income between necessities and wants, such as rent, groceries, and entertainment.
- Comparing prices and choosing products or services that offer the best value within your budget.
- Making choices about saving or investing money to meet future goals or unexpected expenses.



- Balancing your time between work, leisure, and personal activities to maximize productivity and well-being.
- Choosing between using your own vehicle or public transport based on cost and convenience.
- Planning purchases, such as deciding whether to buy a new gadget now or save for a more significant expense later.
- Adjusting your spending habits in response to changes in your income or unforeseen financial needs.
- Understanding how inflation or price changes affect your purchasing power and savings strategy.

MICROECONOMICS



Microeconomics looks at how individuals, families, and businesses make choices about how to spend their money and use their resources. It's all about the small, everyday decisions we make. Microeconomics is a branch of economics that studies the behaviour of individuals and firms in making decisions regarding the allocation of scarce resources and the interactions among these individuals and firms. Unlike macroeconomics, which focuses on the economy as a whole, microeconomics is concerned with the smaller units of the economy.

UNLIMITED WANTS, LIMITED RESOURCES

In an economic society, people have endless desires for goods and services, but the resources available to fulfil these desires are finite. This mismatch between limitless wants and limited resources necessitates careful decision-making and prioritization.

- Unlimited Wants: People always want more. A family might want a bigger house, a new car, and more vacations, but they don't have enough money to get all of them. Businesses want to make more products and earn more money, but they have limited materials and workers.
- Limited Resources: Resources, like money, time, or materials, are limited. For example:
 - Time: A student only has 24 hours in a day. They must decide whether to spend time studying, playing sports, or hanging out with friends.
 - Money: A family may have a limited monthly budget. They have to choose how much to spend on groceries, rent, and entertainment.

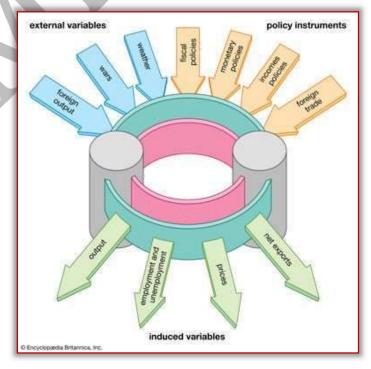


KEY FEATURES

- Study of Individual Units: Microeconomics looks at the economic decisions of individual entities like consumers, firms, workers, and resource owners. It does not focus on the economy as a whole but on specific markets and sectors.
- Scarcity and Choice: Resources are limited, and individuals or firms must make decisions about how to best allocate them to meet their needs and wants. Microeconomics explores these choices.
- Price Determination: A core focus of microeconomics is understanding how the interaction of demand and supply in a market determines the price of goods and services. The price mechanism helps allocate resources efficiently.
- Rational Behaviour: Assumes that individuals make decisions to maximize their utility (for consumers) or profits (for producers). Economic agents are assumed to act in their own self-interest.
- Marginal Analysis: Microeconomics often uses marginal analysis to determine the additional benefit or cost from consuming or producing one more unit of a good or service. This is essential for making optimal decisions.

SCOPE OF MICROECONOMICS:

- Demand and Supply: Analyses how consumers' desire to purchase goods and services (demand) interacts with producers' willingness to supply those goods, determining the market price and quantity.
- Consumer Behaviour: Focuses on how consumers make choices based on their preferences, budget constraints, and prices of goods and services. Concepts such as utility, indifference curves, and budget lines are key here.
- Production and Costs: Examines how firms decide on production levels, choice of inputs, and cost



- structures to maximize profits. This includes the study of production functions and cost curves.
- Market Structures: Studies different types of markets such as:
 - Perfect Competition: Many buyers and sellers, homogeneous products, and easy market entry and exit.
 - Monopoly: A single seller dominates the market with no close substitutes.

- Oligopoly: Few firms dominate the market, often with significant barriers to entry.
- Monopolistic Competition: Many firms sell differentiated products with few barriers to entry.
- Factor Markets: Looks at how factors of production (land, labour, capital) are bought and sold in markets, and how wages, rents, and interest rates are determined.

HOW WE DEAL WITH SCARCITY (SIMPLE EXAMPLES)

- 1. **Making Choices**: People make choices every day because they can't have everything. For example, if you have only \$50 and you want to go to the movies and buy a new T-shirt, you have to choose one. This is a simple example of how we all deal with limited resources.
- 2. **Example of a Business:** Imagine a bakery. The bakery can make either cupcakes or cookies, but it doesn't have enough ingredients to make both. If more customers want cupcakes, the bakery will likely make more cupcakes and fewer cookies. This is an example of how businesses make decisions with their limited resources.
- 3. Example of a Family: A family may want to buy a new television and also go on a vacation, but they only have enough savings for one. They must decide which is more important to them, based on their needs and preferences. In the end, they may decide to save for the vacation, as it brings the family more joy.

Economics is about making smart choices because we can't have everything. Whether it's a student deciding how to spend their time, a family budgeting their money, or a bakery choosing what to bake, economics helps us think about how to best use what we have to get what we want. In our everyday lives, we constantly face situations where we need to prioritize, and that's the core idea of economics.

CENTRAL PROBLEMS OF ECONOMICS

The central problems of an economy arise due to the fundamental issue of scarcity—limited resources but unlimited wants. Every economy, regardless of its type (capitalist, socialist, or mixed), must solve three basic economic problems: What to produce? How to produce? and for whom to produce?

1. WHAT TO PRODUCE?

- This question addresses the issue of deciding which goods and services should be produced in an economy.
- Since resources are limited, producing more of one good means producing less of another.
- Economies must choose the combination of goods and services that will best satisfy the needs and wants of the population.

- Example: Should a country allocate more resources to producing military equipment or consumer goods? If it chooses to produce more military equipment, there will be fewer resources available for consumer goods like food, clothing, and entertainment.
- What are the most desired products by consumers? For example, should a company focus on producing electric cars or traditional gasoline vehicles?
- What resources are available for production? For instance, a country with abundant agricultural land might prioritize food production over industrial goods.
- What are the primary goals of the economy? **For example**, should a developing country prioritize infrastructure development or education?
- What is given up when choosing to produce one good over another? For instance, if resources are used to produce luxury goods, fewer resources might be available for essential goods.



What to Produce?



How to Produce?



For Whom to Produce?

2. HOW TO PRODUCE?

- This question focuses on determining the methods of production.
- It involves choosing between different production techniques, considering factors like cost, efficiency, and environmental impact. The choice between labour-intensive and capital-intensive production methods is a critical decision here.
- Example: A firm can produce cars using more labour (labour-intensive) or by investing in automated machinery (capital-intensive). The decision will depend on factors such as labour costs, availability of capital, and technological advancements.
- Deciding the methods and processes used to produce goods and services. For example, should a factory use traditional manual labour or invest in automated machinery?
- What type of technology should be used in production? For example, choosing between advanced robotics and conventional machinery.
- What are the most cost-effective methods for production? For example, should a company
 use cheaper labour or invest in machinery that reduces long-term costs?
- How should resources be used most effectively? For instance, should production use renewable energy sources or traditional fossil fuels?

- What are the environmental effects of different production methods? For example, deciding between eco-friendly production processes or those with higher environmental impact.
- Should the production process rely more on labour or capital? For example, choosing between employing more workers or investing in machinery that reduces the need for manual labour.

3. FOR WHOM TO PRODUCE?

- This question deals with the distribution of goods and services.
- It addresses the issue of how the output of an economy is distributed among its population. The distribution depends on factors like income levels, wealth, and social policies.
- **Example:** Should luxury goods be produced for the wealthy, or should the focus be on essential goods for the general population? The decision will impact the overall welfare and equity in society.
- Deciding how to distribute the produced goods and services among different groups in society.
 For example, should more resources be allocated to producing luxury items or basic necessities?
- Who has the purchasing power to buy the goods and services? **For example**, should high-end goods be produced for affluent customers or affordable options for lower-income families?
- How can goods and services be distributed fairly? For instance, should there be government programs to ensure that essential goods are available to everyone?
- Balancing production for public services versus private consumption. For example, deciding how much to invest in public health versus private sector goods.
- Addressing the varying needs of different regions or communities. For instance, should resources be directed towards urban areas or rural communities?
- Balancing immediate needs with long-term goals. **For example**, should resources be spent on immediate relief efforts or invested in long-term infrastructure projects?

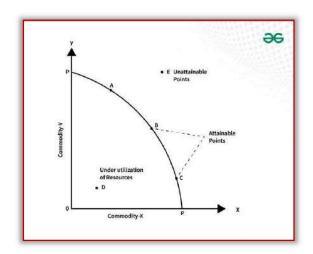
PRODUCT POSSIBILITY FRONTIER OR PRODUCT POSSIBILITY CURVE (PPC)

Product possibility curve(PPC) shows all the possible combinations of two goods that an economy can produce using its available resources and technology. It illustrates the trade-offs and opportunity

costs involved in choosing between different production options. **Economizing resources** means using resources in the best way to increase productivity.

OPPORTUNITY COST

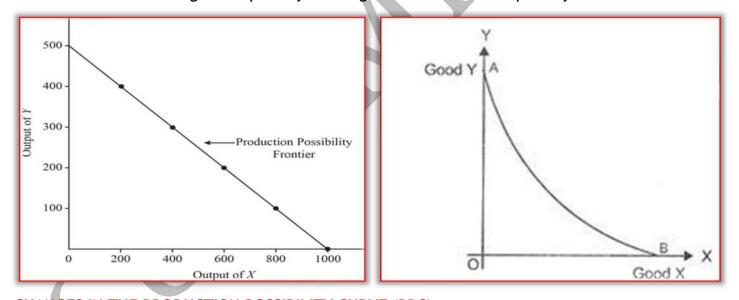
In choosing an opportunity, sacrificing one of the next best uses is called the cost of opportunity. Opportunity cost is the value of the best alternative you give up when making a choice. It reflects what you miss out on by not selecting the next best option. **Example:** If you decide to spend an evening studying for an exam instead of going out with friends, the opportunity cost is the enjoyment



and social interaction you forego with your friends. Recognizing opportunity cost helps you weigh the benefits of different choices, ensuring you make decisions that align with your priorities and maximize your overall satisfaction.

FEATURES OF THE PRODUCT POSSIBILITY CURVE

- 1. **Downward Sloping:** The PPF typically slopes downwards from left to right, reflecting the trade-off between two goods. Increasing production of one good requires reducing the production of another.
- 2. **Concave Shape**: The curve is usually bowed outward (concave) from the origin. This shape illustrates increasing opportunity costs: as more of one good is produced, the cost of producing additional units rises because resources are not equally efficient in producing all goods.
- 3. **Efficiency**: Points on the curve indicate efficient production levels, where resources are fully utilized to their maximum potential. Points inside the curve represent inefficiencies, where not all resources are used.
- 4. **Unattainable Production**: Points outside the curve are unattainable with current resources and technology. They represent production levels that are beyond the economy's capacity.
- 5. **Opportunity Cost:** The slope of the PPF represents the opportunity cost of shifting resources from one good to another. For example, moving from one point on the curve to another involves sacrificing some quantity of one good to increase the quantity of the other.



CHANGES IN THE PRODUCTION POSSIBILITY CURVE (PPC)

The Production Possibility Curve (PPC) can change due to various factors. Here are two conditions that cause shifts:

1. **Change in Resources**: If an economy acquires more resources (e.g., labour, capital, land), the PPD shifts outward, indicating that more of both goods can be produced. **Example**: A country discovers new natural resources, allowing it to produce more of both agricultural products and industrial goods. If resources are reduced (e.g., through natural disasters or loss of workforce),

the PPC shifts inward, indicating a decrease in production capacity. **Example**: A factory closes down, reducing the economy's ability to produce goods, which contracts the PPC.

2. **Technological Change:** Improvements in technology make production more efficient, leading to an outward shift of the PPD. This means more of both goods can be produced with the same resources. **Example:** The development of new machinery allows a factory to produce more goods per unit of input, expanding the PPD. If technology becomes outdated or less effective, the PPD shifts inward, reducing production capabilities. **Example:** A factory's equipment becomes obsolete, leading to reduced production efficiency and a contraction of the PPD.

SHIFT IN PRODUCTION POSSIBILITY CURVE (PPC)

1. Rightward Shift (Expansion of PPC)

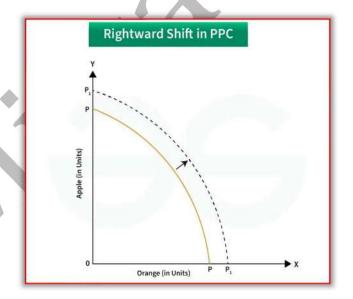
A rightward shift in the PPC indicates an increase in the economy's production capacity. It means the economy can produce more of both goods due to improvements in factors that contribute to production.

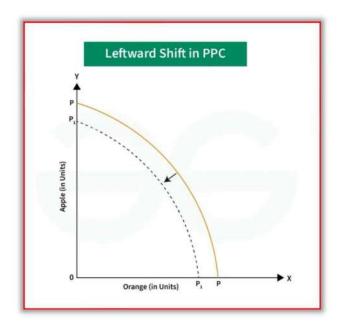
Causes:

- Increase in Resources: More resources (e.g., more labour, capital, or natural resources) become
 available.
 Example: Discovery of new mineral deposits.
- Technological Advancements: Improvements in technology enhance productivity.
 Example: Introduction of new, efficient machinery.
- Improvement in Human Capital: Better education and training increase the skill level of the workforce.
 Example: Expansion of vocational training programs.
- Economic Growth: Overall economic growth leads to increased capacity and efficiency.
 Example: Increase in investment and infrastructure development.

2. Leftward Shift (Contraction of PPC)

A leftward shift in the PPC indicates a decrease in the economy's production capacity. It means the





economy can produce less of both goods due to factors that reduce productive capabilities.

Causes:

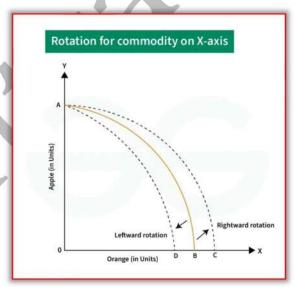
- Decrease in Resources: Loss of resources (e.g., through natural disasters, depletion, or reduced workforce).
 - **Example:** Loss of agricultural land due to soil erosion.
- Technological Decline: Reduction in technology efficiency or outdated technology.
 Example: Failure to maintain and update machinery.
- Economic Decline: Economic downturns lead to reduced investment and production.
 Example: Economic recession causing factory closures.
- Health Crisis: Widespread health issues reducing workforce availability.
 Example: Pandemic leading to high levels of illness and reduced labour force.

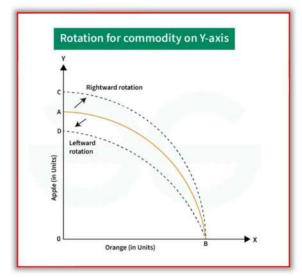
Rotation of Product Possibility Curve (PPC)

- **1. Rotation Around the X-Axis:** If technology improves for crop production (Good X) but not for manufacturing (Good Y), the PPC rotates outward around the X-axis, allowing more crops to be produced while the manufacturing capacity stays the same.
 - Example: Advances in agricultural machinery increase crop yield without affecting factory output.
- **2. Rotation Around the Y-Axis:** If technology improves for manufacturing goods (Good Y) but not for crops (Good X), the PPC rotates outward around the Y-axis, allowing more industrial goods to be produced while crop production remains unchanged.
 - Example: New manufacturing techniques boost industrial output without impacting agricultural production.

Marginal Rate of Transformation (MRT)

 Definition: MRT measures how much of one good must be sacrificed to produce an additional unit of another good. It shows the opportunity cost of reallocating resources.





- Formula: MRT = Δ Good Y / Δ Good X, where Δ Good Y is the decrease in quantity of Good Y, Δ Good X is the increase in quantity of Good X.
- Example: If producing 1 more car requires giving up 2 trucks, the MRT is 2 trucks per car.
- **Significance:** MRT highlights the trade-off between producing different goods, helping to understand the cost of shifting resources.

(Marginal = at the border or adjacent/next to/adjoining) (Transformation = a change in form, shape, appearance or size)

KEY CONCEPTS

- 1. **ECONOMY**: A system of production, distribution, and consumption of goods and services in a society, using available resources to meet needs and wants.
- 2. **SERVICES**: Intangible activities or benefits provided to consumers, such as healthcare, education, and entertainment.
- 3. WANTS: Desires for goods and services that are not necessary for survival but enhance quality of life.
- 4. **RESOURCES**: Inputs used in production, including land, labour, capital, and entrepreneurship.
- 5. GOODS: Tangible items produced for consumption, such as food, clothing, and electronics.
- 6. **HOUSEHOLDS:** Basic economic units consisting of individuals or groups living together who make consumption decisions and provide labour.
- 7. FIRMS: Business organizations that produce goods or services to sell for profit.
- 8. PRODUCTS: Finished goods and services that are offered to consumers for purchase.
- 9. CONSUMPTION: The use of goods and services by households to satisfy needs and wants.
- 10. MICROECONOMICS: The branch of economics studying individual and firm behaviour in decision-making and allocation of resources.
- 11. MACROECONOMICS: The branch of economics that examines the economy as a whole, focusing on aggregate measures like GDP, inflation, and unemployment.
- 12. **ECONOMIC PROBLEM:** The challenge of allocating limited resources to meet unlimited wants, leading to choices and trade-offs.
- 13. MARGINAL OPPORTUNITY COST: The cost of producing one more unit of a good, measured by the amount of another good that must be sacrificed. Example: If producing an additional unit of Good A requires giving up 5 units of Good B, the marginal opportunity cost is 5 units of Good B per unit of Good A.
- 14. PRODUCT POSSIBILITY: The range of combinations of two different goods or services an economy can produce with its available resources and technology.
- 15. PPC (PRODUCTION POSSIBILITY CURVE): A graph showing the maximum possible output combinations of two goods that can be produced efficiently, given current resources and technology.
- 16. LABOUR-INTENSIVE TECHNOLOGY: Production methods requiring significant human labour relative to capital (machines and equipment). Example: Textile weaving using manual looms.

17. CAPITAL-INTENSIVE TECHNOLOGY: Production methods relying more on machinery and equipment than on human labour. Example: Automated assembly lines in electronics manufacturing.

CAUSES OF ECONOMIC PROBLEMS

- 1. **SCARCITY OF RESOURCES**: Limited availability of resources like land, labor, and capital, which cannot meet unlimited human wants.
- 2. **UNLIMITED WANTS**: Human desires for goods and services are infinite, while resources to fulfil these wants are finite.
- 3. **INEFFICIENT RESOURCE ALLOCATION**: Mismanagement or suboptimal use of resources can lead to shortages or surpluses.
- 4. **TECHNOLOGICAL LIMITATIONS**: Lack of advanced technology can restrict production capabilities and economic growth.
- 5. **ECONOMIC DISRUPTIONS**: Factors like natural disasters, wars, or economic crises can negatively impact production and distribution.
- 6. **POLICY CONSTRAINTS**: Inadequate or poorly designed economic policies can hinder effective problem-solving and resource management.

