# Chapter-1

# The Central Concepts of Economics

## Learning Objectives

This chapter provides an introduction for economics and its concepts, through the following points:

- Why study economics? (what is economics?, what is the economic problem?, and the common fallacies in economic logic)
- The problems of economic organization
- Societies' technological possibilities (PPF and its applications)

## Learning Objectives (cont.)

#### Why Study Economics?

- In all your life, you will run up against the truths of economics in decisions, like:
  - How to choose your occupation?
  - How to buy a home?
  - How to pay for your children's education?
  - How to vote in elections
- But the question is what does economics mean.

## Learning Objectives (cont.)

- What is Economics?
- Economics includes many topics like the behavior of the financial markets, the reasons why some people or countries have high incomes while others are poor, international trade and globalization, and the government policies used to achieve economic goals.
- However, economics can be defined as "the study of how societies use scarce resources to produce valuable goods and services and distribute them among different individuals".

### Scarcity and Efficiency (Economic Problem)

- If all goods and services could be produced in infinite quantities, all goods would be free (like sand and seawater), and prices would be zero. But, as a result of scarcity, most goods are economic.
- The economic problem results from the scarcity of the resources available for any society relative to its unlimited needs and wants. That is why the Society must use its resources efficiently.

So, the two twin themes of economics are scarcity and efficiency.

# Scarcity and Efficiency (Economic Problem)

- Scarcity "refers to a situation in which goods are limited relative to desires".
- Given unlimited wants, it is important for an economy to make the best use of its limited resources. This brings the notion of efficiency.
- Efficiency "means the most effective use of a society's resources in satisfying people's wants and needs".
- This means that the economy is producing the highest combination of quantity and quality of goods and services given its technology and scarce resources.

### Microeconomics and Macroeconomics

- Economics today is divided into two major subfields: microeconomics and macroeconomics.
- Microeconomics "is the branch of economics which is concerned with the behavior of individual entities such as markets, firms, and households".
- Macroeconomics "is concerned with the overall performance of the economy". It examines areas such as how total investment and consumption are determined, how central banks manage money and interest rates, causes of international financial crises, etc.

## The Common Fallacies in Economic logic

- Economists use analyses and theories to understand economic life. Because economic relationships are complex, involving many different variables, there may be some fallacies in economic reasoning, Including:
  - The post hoc fallacy
  - Ceteris paribus
  - The fallacy of composition

# The Common Fallacies in Economic logic(cont.)

#### ■ The post hoc fallacy

 It occurs when we assume that, because one event occurred before another event, the first event caused the second event.

#### **Example:**

 Since the periods of expansion were preceded or accompanied by rising prices, it was concluded that the remedy for depression in the 1930s in the United States was to raise wages and prices, but these measures slowed recovery.

# The Common Fallacies in Economic logic(cont.)

#### Ceteris Paribus

 with other conditions remaining the same; other things being equal.

#### **Example**:

• If the price of milk falls, ceteris paribus, the quantity of milk demanded will rise. This means that, if other factors, such as deflation, pricing objectives, utility, and marketing methods, do not change, the decrease in the price of milk will lead to an increase in demand for it.

# The Common Fallacies in Economic logic(cont.)

- The fallacy of composition
  - It occurs when we assume that what is true for the part of a system also holds true for the whole.

#### Example:

- If one farmer has a bumper crop, this farmer will have a higher income, if all farmers produce a record crop, farm incomes will fall.
- If someone receives a great deal of money, that person will be better off, but if everyone receives a great deal more money, the society is likely to be worse off.

# The Three problems of economic Organization

- Every society whether it is an advanced industrial or centrally planned economy must face and resolve three economic problems:
- 1. What commodities are produced and in what quantities?
- How are goods produced? (who will produce and what are the techniques of production)
- 3. For whom are goods produced? (Who will get the benefit of economic activity)

# How the Three Problems are solved in different economic systems

An economy can be organized in one of the following three systems:

- Market Economy in which individuals and private firms make the major decisions about production and consumption. A system of prices, markets, incentives, and profits and losses solve the three problems.
- 2. **Command Economy** in which the government makes all important decisions about production and distribution. The government owns most of the means of production and is the employer of most workers.
- Mixed Economy in which elements of both market and command are mixed.
  - Most societies today operate economies, mixed in which the government oversees the functioning of the market, passes laws, produces educational and police services, and control pollution.

## Society's Technological Possibilities

- In deciding what and how things should be produced, the economy is deciding how to allocate its resources among the thousands of different possible commodities and services.
- □ To answer these economic questions, every society must make choices about the economy's inputs and outputs.
- Inputs "are commodities or services that are used to produce goods and services".
- Outputs "are the useful goods or services that result from production process and are consumed or employed in further production.

## Society's Technological Possibilities(cont.)

- Inputs are also known as factors of production and include:
- Land (natural resources) that is the gift of nature.
- Labor including the human time spent in production.
- Capital resources including the durable goods produced in order to produce other goods, such as machines, roads, software, etc.

# Using the PPF to show how societies choose (Efficiency and Opportunity Cost

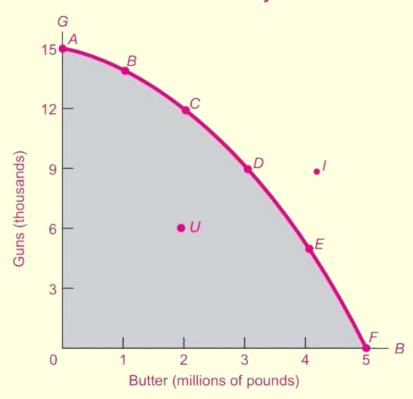
- Using the PPF to show how societies choose (Efficiency and Opportunity Cost)
- The Production Possibility Frontier (PPF) "shows the maximum quantity of goods that can be efficiently produced by an economy, given its technological knowledge and the quantity of available inputs".
- If we assume that the economy produces only two economic goods: guns and butter, then the different combinations of these two using available resources efficiently and given knowledge can be shown by the following table:

Possibilities	Butter (millions of pounds)	Guns (thousands)
A	0	15
В	1	14
C	2	12
D	3	9
E	4	5
F	5	0

**TABLE 1-1.** Limitation of Scarce Resources Implies the Guns-Butter Tradeoff

These combinations can be illustrated by the following PPF:

The Production-Possibility Frontier



- □ In the previous PPF:
- Points like A,B,C till F represents productive efficiency (points on the PPF), indicating that the maximum quantity of both goods is produced at each point within the given knowledge or technology level.
- Point U (inside or within the PPF) represents inefficiency, as for example when you move from the point U to a point like D (on the PPF), both guns and butter would increase in production, guns by 3 thousands and butter by 1 million of pounds, indicating efficiency.

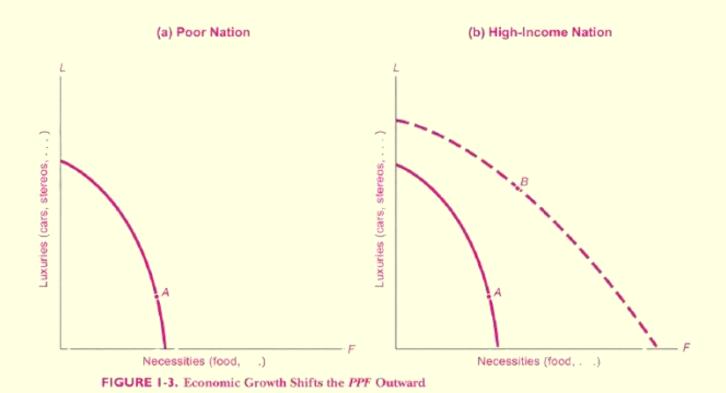
- Points like point I (outside the PPF) is infeasible or unattainable within the available resources and technology, thus moving to points outside the PPF requires increased quantity or improved knowledge and will result in economic growth in the economy.
- In this way, the productive efficiency concept can be illustrated by the PPF.

- The opportunity cost concept can be described also using the PPF.
- Because our resources are limited, we must decide how to allocate our resources. As resources are limited relative to society' needs and wants, not all goods and services will be produced, but we must choose. This choice results in opportunity cost.
- Opportunity cost of a decision is the value of the good or service forgone.

- For example, suppose the country decides to increase its purchases of guns from 9 thousands at point D to 12 thousands at C.
  This choice includes opportunity cost that is the 1 million pounds of butter forgone.
- This means that any economic decision includes an opportunity cost.

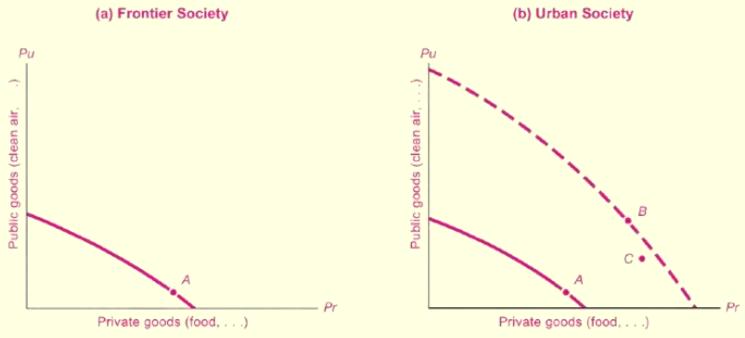
# Other applications of the PPF

The effect of economic growth



# Other applications of the PPF (cont.)

Choice between private goods and public goods



## Other applications of the PPF (cont.)

Choice between Current consumption and investment

