UNIT 1: BASIC MICROECONOMIC CONCEPTS

BASIC CONCEPTS

Scarcity: The Nature of Economic Systems

- **Positive economics** - describes the way things are
- **Normative economics** - addresses the way things should be
- **Economics** - the study of how to allocate scarce resources among competing ends
- **Scarcity** - occurs because our limited desire for goods and services exceeds our limited ability to produce them due to constraints on time and resources
- **Factors of production**
    - Capital
    - Labor
    - Entrepreneurship
    - Natural resources/land

Opportunity Costs and Production Possibilities

- **Opportunity cost** - the value of the best alternative sacrificed as compared to what actually takes place
- **Production possibilities frontier/curve (PPF/PPC)** - illustrates the choices an economy faces and the opportunity cost of making one good rather than another
    - Points outside the frontier require more resources than the economy has, and are therefore unattainable
    - Points inside the frontier are attainable, but inefficient
    - Points on the frontier means that the economy is running efficiently
        - **Efficiency** - economy is using all of its resources productively
    - The **absolute value of the slope** of the PPC between two points indicates the **average opportunity cost** of the horizontal axis good between those two points
    - The PPC is often curved due to the **specialization of resources**
        - If two goods involve no specialization of resources, the PPC will be a straight line
    - The PPC can also be used to analyze production decision between consumption goods and investment goods
        - A PPC between consumption goods and capital goods says that current investment in capital leads to future growth

Specialization and Comparative Advantage

- **Specialization** and **division of labor** allows an economy to be more efficient
- **Absolute advantage** - the ability to produce more of a good than another entity, given the same resources
- **Comparative advantage**- the ability to produce a good at a lower opportunity cost than another entity
    - The opportunity for two countries to benefit from specialization and trade rests only on the existence of a *comparative advantage* in production between the two countries
- With specialization and trade, each country enjoys a **consumption possibilities frontier** that exceeds its production possibilities frontier.
    - The slope of the consumption possibilities frontier is determined by the **terms of trade**

THE FUNCTIONS OF AN ECONOMIC SYSTEM:
WHAT, HOW AND FOR WHOM TO PRODUCE

What Goods and Services Will Be Produced?

- **Allocative efficiency (or efficiency in output)** - refers to how different resource inputs are combined to produce a mix of different outputs
    - Resources are allocated efficiently if each good is produced until **marginal cost = marginal value**
        - **Marginal cost** - the cost of producing one more unit
        - **Marginal value** - the value of one more unit
    - Equilibrium price represents marginal value output → condition for allocative efficiency is **price = marginal cost (P = MC)** for each type of output

How Much of Each Input Will Be Used in the Production of Each Good?

- **Technical efficiency (or efficiency in production)** - concerned with achieving maximum outputs with the least cost
- **Cost-minimizing production condition**

$$\frac{w}{r} = \frac{MP_L}{MP_K} \rightarrow \frac{MP_K}{r} = \frac{MP_L}{w}$$

    - **Wage (w)** = price of labor
    - **Rental rate (r)** = price of capital

- **Marginal product of labor (MP_L)** - the additional output produced by one more unit of labor
- **Marginal product of capital (MP_K)** - the additional output produced by one more unit of capital
- $\frac{MP_K}{r} > \frac{MP_L}{w}$ → buy more capital, hire less labor
- $\frac{MP_K}{r} < \frac{MP_L}{w}$ → buy less capital, hire more labor

- **Efficient allocation of inputs** - requires that the output of one good could not be increased without decreasing the output of another good
  - True when firms satisfy the *cost-minimizing production condition*

Who Will Receive the Final Products?

- **Distributive efficiency (or efficiency in exchange)** - concerned with the optimal method of distributing goods so that those who place the highest relative value on the goods receive them
  - An economy achieves *distributive efficiency* when consumers make purchases that maximize their **utility** given their budgetary constraints
    - **Utility** - the total satisfaction received from consuming a good or service
  - Consumers get the most utility for a given budget by equating the **marginal utility (MU) per dollar** in the **price** of each good they purchase

    $$\frac{MU_A}{P_A} = \frac{MU_B}{P_B} \quad \rightarrow \quad \frac{P_B}{P_A} = \frac{MU_B}{MU_A}$$

    - **marginal utility (MU)** - additional utility from the last unit
    - MU_A / P_A - marginal utility and price of good A
    - MU_B / P_B - marginal utility and price of good B
    - **marginal rate of substitution (MRS)** - $\frac{MU_B}{MU_A}$
- **Formal condition for distributive efficiency** - the marginal rate of substitution (MRS) is equal for every consumer

Conclusion

- Long-run equilibrium implies that P = MC
- With firms minimizing their costs and consumers maximizing their profits, economic theory holds that: **All 3 types of efficiency are achieved when a perfectly competitive market is in long-run equilibrium**

SYSTEMS OF GOVERNMENT AND ECONOMIC DECISIONS

- **Communism** - a system in which the government owns all the resources in society and answers the three economic questions: what, how, and for whom goods are produced
  - Designed to minimize imbalance in wealth via the *collective ownership of property*
  - Legislators from a single political party determine wages
  - Problems:
    - Lack of incentives for extra effort, risk taking, and innovation
    - Vulnerability to corruption
- **Socialism** - a system in which the government maintains control of specific resources or markets in society
  - Shares the communist goal of fair distribution and the pitfall of inadequate incentives
  - Negotiations between trade unions and managers determine wages
  - Ruled by several political parties
- **Capitalism** - a system in which individuals and private firms own the resources in society and answer the three economic questions: what, how, and for whom goods are produced
  - Private individuals control the factors of production and operate them in the pursuit of profit
  - Negotiations between managers and employees or their union determine wages
  - Market forces of supply and demand largely determine the allocation of scarce resources
  - Government may regulate businesses and provide tax-supported social benefits ties for goods and services

THE NATURE AND FUNCTIONS OF PRODUCT MARKETS

★ *The standard supply and demand model is built upon the assumption of a perfectly competitive market*

Demand