Market

- derived from the Latin word "mercatus," which means "trade," "a place of trade," or "buying and selling."
- from the Latin verb "mercari," meaning "to trade" or "to buy," which itself is derived from "merx" (meaning "goods" or "merchandise"

What is market?

- system or environment where buyers and sellers come together to exchange products, services, and inputs. This concept encompasses not just the physical location where transactions occur but also the broader mechanisms and dynamics involved in the exchange of goods
- group of buyers and sellers with facilities for trading with each other
- place where buyers and sellers meet to exchange goods and services
- large geographic area wherein a given set of supply and demand forces operate to set prices

Elements of Market

Marketing

- series of services involved in moving a product from the point of production to the point of consumption
- covers the entire supply chain, from the production to their sale and distribution, ensuring that the products meet consumer needs efficiently and profitably

Point of Production - point of FIRST sale by the farmers, usually at the farm or at the farmer's house

Point of Consumption - point of LAST sale or purchase or point where marketing ends

Entry Points in Agricultural Marketing

- Organization of small farm businesses
- Corporate and small grower arrangement
- Establishment of trading post
- Building of marketing infrastructure and communication facilities

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Agricultural Marketing System

- complex system within which various subsystem interact with each other and with the different marketing environments.
- backbone of the agriculture industry, ensuring the efficient movement of products from farms to consumers.

1. Producer Subsystem - focuses on activities and functions of producers

2. Channel Subsystem - network of intermediaries and processes that facilitate movement of agricultural products

3. Flow Subsystem - facilitate flow of information (pricing, demand, product availability) and movement of money

4. Functional Subsystem - marketing functions or services related to creation of place, time, and form utilities

5. Consumer Subsystem - focuses on final recipients/user (consumer)

6. Environmental Subsystem - Climatic/physical, socio-cultural, economic/technological, and legal/political

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Approaches in Marketing

1. Commodity approach

- Product oriented rather than marketing function
- Takes a single commodity and analyzes its production, processing, transportation, storage, marketing, and consumption

Situational example: A researcher analyzes how rice moves from farmers to consumers.

2. Institutional approach

- Answers the "who" in the marketing process
- Focuses on the role of market institutions and intermediaries in marketing

Middlemen - intermediaries who facilitate the movement of goods from producers (farmers) to final consumers

1. Merchant Middlemen - intermediaries in the agricultural marketing system who buy and sell agricultural products on their own account. Unlike agents or brokers, they take ownership of the goods they handle.

2. Agent Middlemen - intermediaries in the agricultural marketing system who buy and sell agricultural products on their own account. Unlike agents or brokers, they take ownership of the goods they handle.

    - Broker - intermediaries in the agricultural marketing system who buy and sell agricultural products on their own account. Unlike agents or brokers, they take ownership of the goods they handle.
    - Commission agent - intermediaries in the agricultural marketing system who buy and sell agricultural products on their own account. Unlike agents

or brokers, they take ownership of the goods they handle.

Aside from middlemen and its types, other actors are also included in the institutional approach:

a. Processors and manufacturers
b. Market associations
c. Facilitative organizations

3. Functional approach

- Answers “what” in the query “who does what?”
- emphasis is on understanding the FUNCTIONS that are performed throughout the marketing system and how they contribute to the overall process of moving goods from production to consumption.

Physical function - focus on the handling, movement, and preservation of products as they move from farm to market.

- Assembly function
- Handling and packaging function
- Transportation function
- Storage function

Exchange function - deal with the transfer of ownership from producers to consumers and include buying and selling activities

- Buying and selling

Facilitating function - supportive services that enable the smooth execution of the main marketing activities

It enables smooth performance of exchange and physical functions.

1. Financing function - provides the necessary capital to facilitate various marketing functions like purchasing inputs, transporting goods, or storing products.

2. Risk-bearing function - involves managing the uncertainty and risks associated with agricultural marketing.

3. Market intelligence - collecting, interpreting, and disseminating the large variety of data which are necessary to the smooth operation in the marketing processes

4. Market research - done to evaluate the possible alternative marketing channels that may be used, the different ways of performing

5. Grading - evaluating and categorizing products based on specific criteria, such as quality, size, and features.

6. Standardization - establishing uniform specifications and criteria for products, services, or processes

4. Structure-Conduct-Performance Approach

a. Market structure - refers to the organizational and competitive characteristics of a market, which influence the behavior of buyers and sellers, the pricing of goods and services, and the overall market performance

   Based on factors like the number of firms in the market, the nature of the products being sold, the level of competition, and the ease of entry or exit for new firms.

b. Market conduct - refers to the behavior of firms in a market, especially in terms of how they make decisions regarding pricing, production, product strategies, and other competitive actions

   Pricing strategies, mergers, and collusive behavior

c. Market performance - how well a market functions in terms of meeting the goals of efficiency, equity, and growth

   It evaluates the outcomes of market behavior, such as pricing, product quality, consumer satisfaction, and overall economic welfare.

General Types of Market Structure

1. Perfect Competition
2. Imperfect Competition
   a. Monopoly
   b. Oligopoly
   c. Monopolistic competition

Structure	# of Firms	Product	Control over price	Barriers to entry	Competition	Examples
Perfect Competition	Many	Homogeneous	No control (Price taker)	None (Free entry and exit)	Very high	Agricultural market
Monopoly	One	Unique, no close substitutes	Complete (Price maker)	Very high	None	Utility companies, patented technologies
Monopolistic Competition	Many	Differentiated but similar	Some due to differentiation	Low	High	Retail food products, restaurants
Oligopoly	Few	Homogeneous or differentiated	Moderate to high (inter-dependence)	High	Limited	Fertilizer companies, agricultural machinery

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Marketing channels

- pathways or routes through which goods and services flow from producers to consumers
- also called “distribution channels”

Service output

- Market decentralization - extent to which product availability and selling activities are spread across multiple locations to reach different customer segments
- Lot size - quantity of a product that a customer purchases in a single transaction

- Delivery time - time it takes from when a customer places an order until they receive the product
- Product variety - assortment or range of products offered to customers within a channel

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Marketing Function

- task performed by an intermediary in the channel of distribution to create form, time, place, and possession utility.
- marketing is productive because it creates **UTILITY**

Types of Utility

1. Form – Changing the form or state of a product to make it more useful or appealing
    - e.g. Processing wheat into flour, converting milk into cheese.

2. Place - Making products available where consumers want them
    - e.g. Transporting fresh produce to urban markets, online grocery deliveries.

3. Time - Ensuring products are available when consumers need them
    - Storing grains for year-round availability, seasonal produce during holidays.

4. Possession - Facilitating the transfer of ownership and ease of acquisition.
    - Direct purchases at farmers' markets, installment plans for farm equipment.

Marketing Margin - difference between the price a consumer pays for a product and the price that the producer receives for the same product.

Components:

1. Marketing Cost - returns to the factors of production used in providing the processing and marketing services rendered between farmers and consumers

2. Marketing Charges - returns according to the various agencies or institution involved in the marketing of products

Types of Marketing margins:

1. Absolute constant margin – absolute peso difference between prices at various market levels (Selling price – buying price)

2. Percentage margin – absolute margin divided by selling price

3. Percentage mark-up – absolute margin divided by buying price

Breakdown of consumer's peso - a series of figures representing the absolute margins of different types of middlemen assignable to different marketing functions divided by the retail price

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Marketing efficiency

- Maximization of input-output ratio
- it measures the relationship between marketing inputs and outputs, aiming to maximize results while minimizing costs.

Types:

1. Operational / Technological Efficiency - focuses more on reducing the cost of inputs assuming that the essential nature of output of goods and services remain constant

2. Pricing / Economic - concerned with improving the buying, selling, and pricing aspects of marketing process so that it will remain responsive to the consumer direction

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Industrial Location Theory - material-oriented, market-oriented, and footloose are categories that describe how plants (or factories) choose their locations based on factors like the availability of raw materials, proximity to markets, and operational flexibility

Type of Plant	Location Factor	Key Characteristics	Reason for location
Material-oriented plant	Proximity to raw agricultural materials	- Located near farms or plantations - Raw materials are bulky or perishable	Minimize transport costs and spoilage of bulky/perishable goods
Market-oriented plant	Proximity to consumers or markets	- Located near urban centers or markets - Products are perishable or need quick delivery	Minimize delivery time and costs to ensure product freshness
Footloose plant	Flexible location	- Location independent - Low transport costs for both raw materials and products	Flexibility to choose based on labor, infrastructure, or incentives

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Marketing Plan

- A guide that allows the farmer to study the consumers' needs and preferences in advance before production is carried on.
- It consists of the courses of action that the farm manager should do to make sure that the products that will be produced can be sold at remunerative price

1. Product - refers to anything offered by a firm to provide customer satisfaction, tangible or intangible.

Product Classifications:

A. CONSUMPTION AND TANGIBILITY

1. Durables

- Goods that provide a stream of services or utility over time
- Long interval between repeat purchases

2. Non-durables

- Tend to be consumed immediately
- Stronger repeat purchase

B. EFFORT AND RISK

1. Convenience products

- Lowest risk and lowest effort products
- Does not spend a lot of time and money in buying
- Type: (1) Staple and (2) Impulse

2. Shopping products

- time and effort to compare competing products
- basis of comparison depends on the quality, suitability, price, and style of the product

3. Preference products

- Depends on the perceived risk of consumers which relies on branding and advertising
- Strategy is to minimize risk

4. Specialty products

- Product with unique characteristics or brand identification for which a significant group of buyers is willing to make a special purchase effort
- Customized, with no substitutes, with highest level of risk and effort in buying

C. LEVELS OF PRODUCT

1. Core product - problem solving benefits

2. Actual product – Product parts, quality level, features, design, brand name, and packaging

3. Augmented Product - offering of additional services and benefits such as warranty or extras

The Three Levels of a Product
www.marketingteacher.com

Brand - represented by a name, logo, symbol, or design for identity.

Packaging - materials and design used to contain, protect, and present the product.

Label - information printed on or attached to the packaging that provides details about the product, such as its ingredients, origin, nutritional information, and usage instructions.

Product quality

- ability of product to perform its functions
- refers to the characteristics and attributes of a product that meet or exceed customer expectations
- Factors: performance, durability, reliability, aesthetics, features, conformance, perceived quality, precision

Extrinsic cues - external characteristics of the product that are not part of the product itself but influence consumer perception and decision-making.

Intrinsic cues - refer to the physical characteristics of the product that are inherent and cannot be easily changed without altering the product itself.

ISO 9000	ISO 9001
Series of quality management and assurance standards which define the elements required to achieve a quality system regardless of the product manufactured or the technology used	defined as the international standard that specifies requirements for a quality management system (QMS); its requirements define how to establish, implement, maintain, and continually improve a quality management system (QMS)

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2. Price - amount of money or other forms of compensation that a buyer must pay to acquire a good or service

- amount of money or other forms of compensation that a buyer must pay to acquire a good or service

Price determination - Interaction of the broad forces of supply and demand which determine or cause the market price level

Price discovery - Process of buyers and sellers discovering or arriving at transaction prices for given qualities and quantities of product at a given time

Pricing Strategies:

1. Price lining - Setting different prices for similar product with different classes
2. Price skimming - Setting highest possible initial price then lowering it over time
3. Product bundle pricing - Bundling of complementary products that has a total price lower than the total price of products when purchased separately
4. Promotional pricing – BOGOF

5. Psychological pricing - pricing items just below a round number
6. Penetration pricing - setting a low initial price to attract customers and gain market share quickly, with the intention of raising prices later once a customer base is established.
7. Cost-Plus pricing - strategy involves calculating the total production cost of a product and then adding a specific markup percentage to determine the selling price

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3. Place - refers to the distribution channels and locations where agricultural products are made available to consumers

Distribution factors:

- Number of potential buyers
- Complexity of product
- Sales and distribution experience
- Geography

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4. Promotion - various activities and strategies employed to communicate, inform, and persuade potential customers about agricultural products

Importance:

- Increasing awareness
- Stimulating demand
- Building brand loyalty
- Enhancing sales

Types of advertising:

Type of Advertising	Definition	Example
Product	Focuses on promoting a specific product or service	An advertisement for a new variety of organic tomatoes.
Competitive	Highlights the advantages of a product over its competitors.	A cereal brand advertising that its product has more fiber than a competitor's.
Comparative	Directly compares one product with another to highlight differences.	A detergent brand showing side-by-side cleaning performance comparisons with another brand.
Institutional	Promotes the brand or organization rather than specific products.	A campaign by a farm promoting its commitment to sustainability and community engagement.

Type of Advertising	Definition	Example
Trade	Targets wholesalers and retailers rather than final consumers.	A manufacturer promoting its new products to grocery store owners at a trade show.
Cooperative	Joint advertising efforts between manufacturers and retailers.	A local grocery store and a dairy farm jointly advertising a sale on milk products.
Advertising Campaign	A coordinated series of advertisements focused on a specific goal or message.	A seasonal advertising campaign promoting a crop's health benefits leading up to harvest time.

Sales Promotion:

1. Consumer promotion – focuses on incentivizing individual consumers to purchase products directly. It uses tactics that appeal to the end-user, such as discounts, coupons, and contests
    - e.g. BOGOF, discount coupons, samples, raffles

2. Trade promotion - targets intermediaries within the distribution channel, encouraging them to stock and sell products through incentives such as discounts, allowances, and promotional support
    - e.g. incentives for sales reps., trade discounts, trade shows, cooperative advertising

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AGRICULTURAL ECONOMICS

What is economics?

- social science that studies how people allocate scarce resources to satisfy their unlimited wants and needs
- derived from the Greek word "oikonomia," which means "household management" or "management of the household."

Microeconomics - focuses on individual agents, such as households and firms, and how their decisions affect supply and demand for goods and services

Macroeconomics - looks at the economy as a whole, analyzing aggregate indicators like GDP, unemployment rates, and inflation.

Positive economics

- deals with objective, factual statements about economic phenomena.
- focuses on what is

Normative economics

- involves subjective judgments and opinions about what the economy should be like or what policies should be pursued
- focuses on what ought to be

Ideologies

Ideology	Characteristics
Capitalism	- emphasizes private ownership, free markets, and limited government intervention - market economy or free economy
Communism	- seeks to create a classless society through state ownership of all means of production and wealth redistribution - command economy
Socialism	- combines aspects of both capitalism and communism, with key industries controlled by the state, but private ownership is allowed in other sectors
Fascism	- characterized by authoritarianism, nationalism, and a command economy, where the state directs economic activity - Strong one-man or junta dictatorship
Feudalism	- medieval system where land ownership and social hierarchy are the foundations, with peasants working the land in exchange for protection from the ruling lords

Evolution of Economics

1. Classical Economics

- Focuses on the production side of the economy, emphasizes labor as the source of value (labor theory of value), and champions laissez-faire policies
- assumes that markets are self-regulating and do not need government intervention
- Adam Smith, David Ricardo, Thomas Malthus, John Stuart Mill

Economist	Key Contributions
Adam Smith	• Father of modern economics and proponent of free markets • Author of The Wealth of Nations (1776) • Developed the concept of the invisible hand, division of labor, and specialization in trade • Focused on the efficiency of markets and minimal government intervention (laissez-faire)
David Ricardo	• Advanced comparative advantage theory, promoting international trade • Developed the Theory of Rent and highlighted the diminishing returns in agriculture • Known for the Iron Law of Wages, predicting that wages would always settle at subsistence levels.
Thomas Maltus	• Known for the Malthusian Theory of Population • His work highlighted the tension between population growth and resources
John Stuart Mill	• Combined economic thought with social philosophy, advocating for government intervention to address inequality and promote social welfare • Advocated utilitarianism and mixed economic policies to balance individual freedom with social justice.

2. Neoclassical Economics

- Shifts the focus from production to individual choices and marginal utility
- argues that people make decisions at the margin to maximize satisfaction or utility, and prices adjust to balance supply and demand
- Leon Walras, Alfred Marshall

Economist	Key Contributions
Leon Walras	• Developed general equilibrium theory and Walras' Law, focusing on the interdependence of markets and the formalization of economic systems through mathematics • one of the pioneers of marginal utility theory
Alfred Marshall	• Developed the supply and demand framework • introduced price elasticity • pioneered the use of marginal analysis and the distinction between short-run and long-run market behavior • consumer and producer surplus also enhanced understanding of welfare economics

3. Keynesian Economics

- stresses the importance of aggregate demand and short-run issues, advocating for active government intervention to manage economic cycles and stabilize demand
- John Maynard Keynes

Economist	Key Contributions
John Maynard Keynes	• The General Theory of Employment, Interest, and Money, challenged the classical and neoclassical views that markets are always self-correcting and that full employment is the natural state of an economy • Rejection of Say's Law • Importance of Government Intervention • Sticky Wages and Prices • Multiplier Effect • Liquidity Preference

4. Mainstream Economics

- blend of classical, neoclassical, and Keynesian ideas. It embraces the neoclassical focus on individual optimization and marginal analysis but also incorporates Keynesian economics

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Major Theories in Economics

1. Keynesian Economics

- Developed by British Economist John Maynard Keynes (1883-1946)
- Based on the idea that government intervention can be used to stabilize the economy and reduce unemployment through fiscal and monetary policy

2. Marxism/Marxian Economics

- Developed by German Philosopher Karl Marx (19th century)
- Based on the idea that capitalist system is inherently exploitative and that it will eventually be replaced by a socialist system
- Based on labor theory of value

3. Neoclassical Economics

- Based on the idea that individuals and firms make rational decisions to maximize their own utility or profit
- General approach in economics focusing on the determination of prices, outputs, and income distributions in markets through supply and demand

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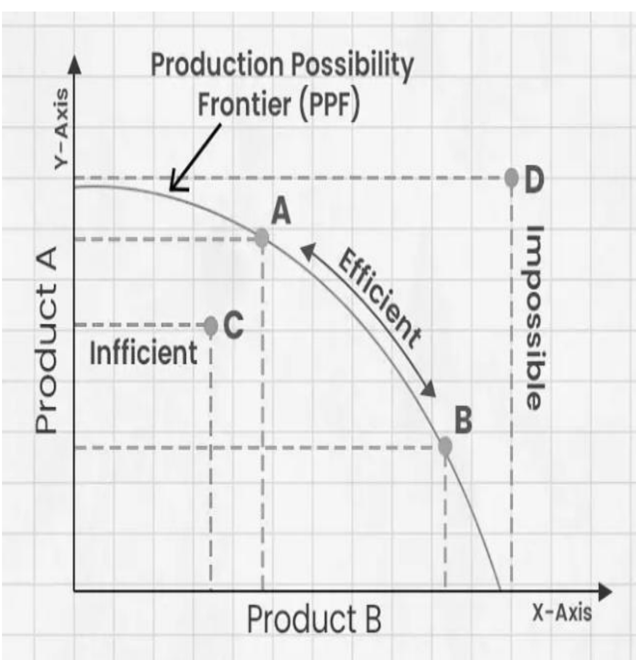
Production Possibility Frontier

- Represents all possible combinations of the maximum amounts of two products that can be produced with a given amount of resources
- illustrates the trade-offs between the production of two goods or services, showing the maximum feasible output combinations that an economy can achieve, given its available resources and technology



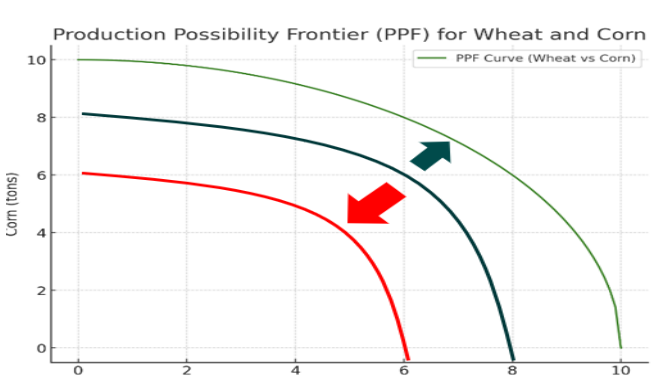
Factors causing outward and inward shift of PPF Curve

1. Outward Shift

- New technology
- New prod. Method
- New raw materials
- Increase in labor force

2. Inward Shift

- Resources run out
- Natural disaster
- Failure to invest
- Erosion of infrastructure



Theory of Production

- explores how firms transform inputs (such as labor, capital, and raw materials) into outputs (goods and services) in the most efficient way
- analyzes the relationship between the factors of production and the quantity of output produced

Key Concepts:

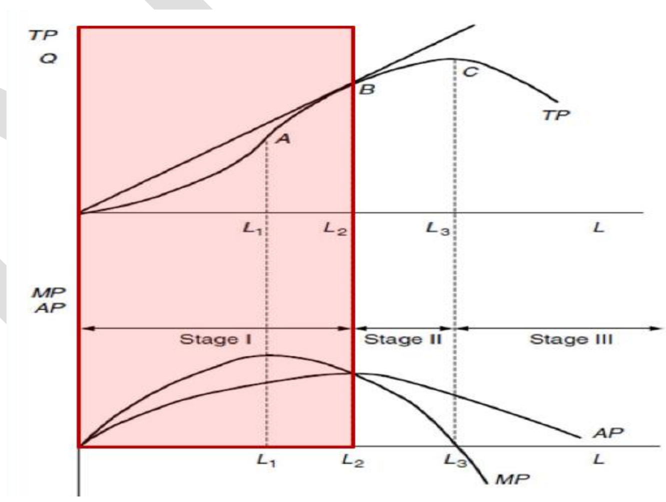
- Factors of Production
  - Fixed – land, machineries, infrastructure
  - Variable – seeds, fertilizers, labor

- Production Function
  - describes the technical relationship between the inputs and the output

- Law of Diminishing Marginal Returns
- states that as more units of a variable input (e.g., labor) are added to fixed inputs (e.g., land or capital), the additional output (marginal product) produced by each additional unit of the variable input will eventually decrease

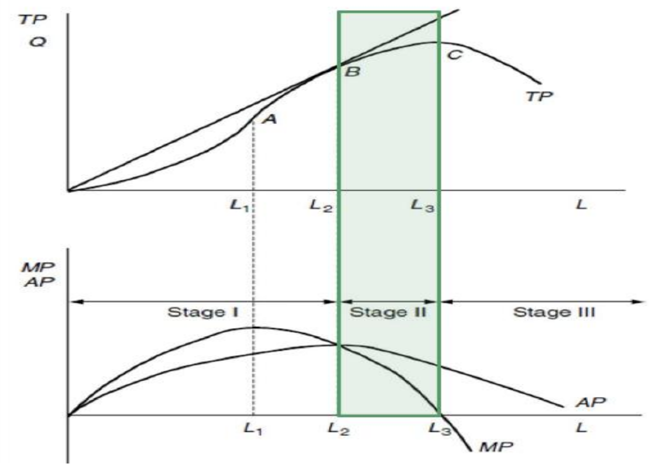
Stages of Production

Stage I



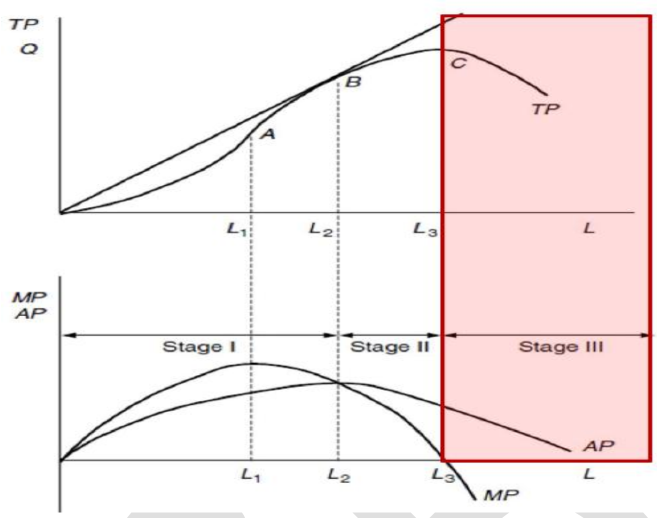
- TP, MP, and AP increases
- MP reaches its peak followed by a decline
- MP > AP
- AP reaches its peak (at the end of stage I)
- Irrational stage

Stage II



- AP starts to decline
- MP continues to decline and reaches zero at the end
- AP > MP
- TP increases but at a decreasing rate
- Most economical stage (MP = 0)

Stage III



- All product curves are declining
- MP < 0
- Additional input reduces output (TP curve declines)
- Irrational stage

Theory of Cost

- examines how costs affect the production of goods and services
- explores various types of costs, their relationships with output levels, and how they influence decision-making for firms and individuals

Types of Cost

1. Total Fixed Costs - do not change with the level of output

2. Total Variable Costs - fluctuate with the level of production

3. Total Cost - sum of fixed and variable cost at a given level of output

4. Average Costs - total cost divided by the quantity of output produced

$$AC = {}^{TC}/_{Q}$$

5. Average Variable Cost

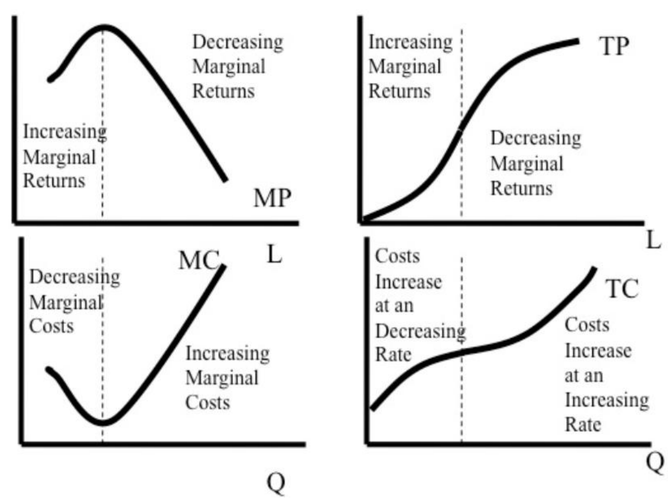
$$AVC = {}^{TVC}/_{Q}$$

6. Average Fixed Cost

$$AFC = {}^{TFC}/_{Q}$$

7. Marginal Cost - additional cost incurred from producing one more unit of output

$$MC = {}^{\Delta TC}/_{\Delta Q}$$



Inverse relationship of Marginal Product and Marginal Cost

Price and Output

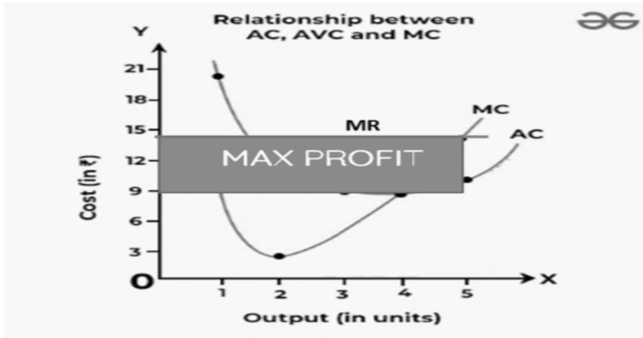
Features of Perfectly Competitive Market

a. Smallness of buyers and sellers relative to the market
b. Homogeneous product
c. Absence of artificial restraints or controls
d. Free entry or exit
e. Perfect information

Profit Maximizing Condition in a Perfectly Competitive Market

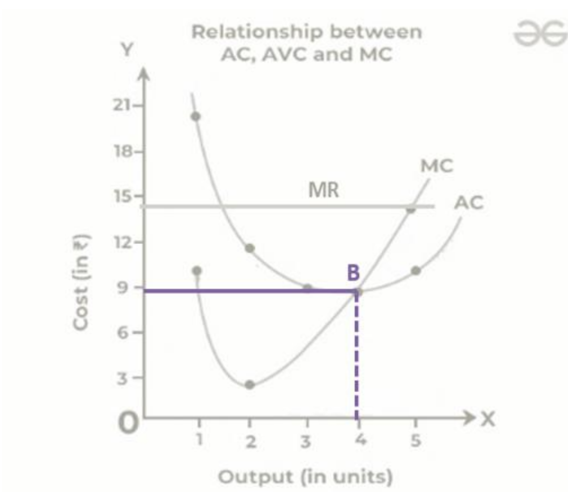
- Perfectly competitive firm maximizes profit when

  Price = Marginal Revenue = Marginal Cost



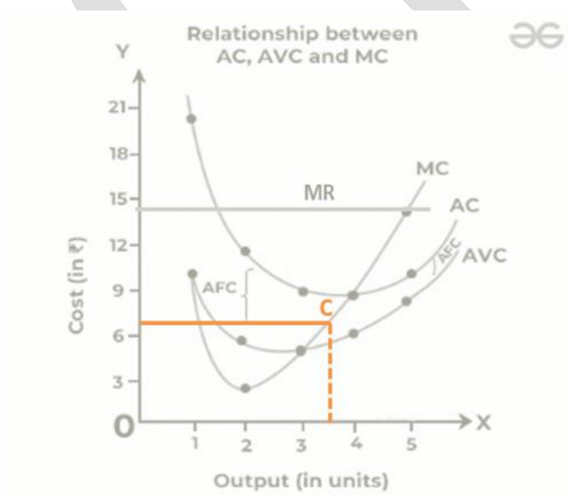
Breakeven Point

- Point B → Break-even point
- Lowest point of AC
- Firm makes NO PROFIT and incurs NO loss



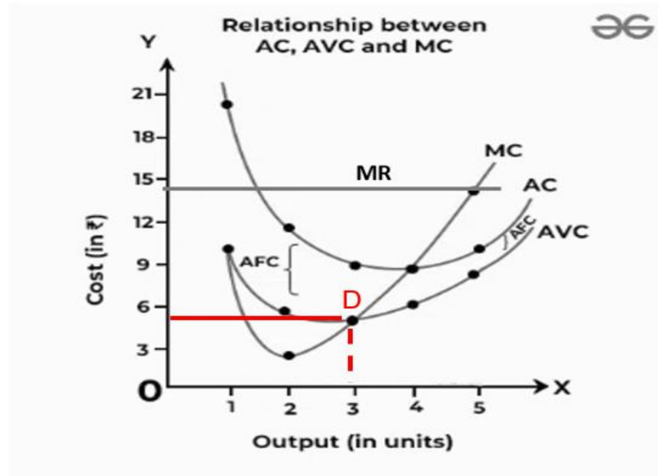
Price between AC and AVC

- Point C → not profitable
- P < AC but P > AVC → not profitable
- Firm is operating at a loss but able to cover variable cost and some portion of fixed cost
- Short run → stay operating
- Long-run → exit



Shutdown Point

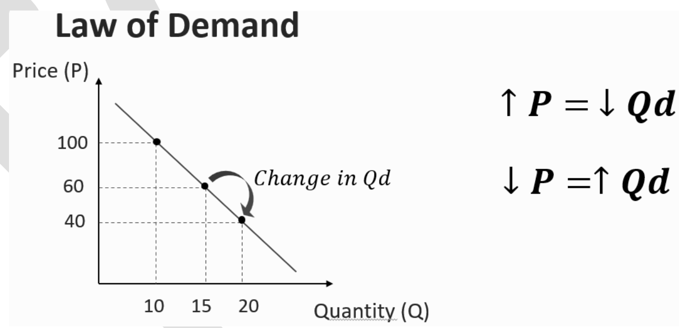
- Point D → shutdown point
- P < AVC → shutdown



Demand and Supply

Demand - refers to the quantity of a good or service that consumers are willing and able to purchase at various prices during a specific period of time, <u>ceteris paribus</u>

Law of Demand - Quantity demanded of a good (Qd) is inversely related to its own price (P)



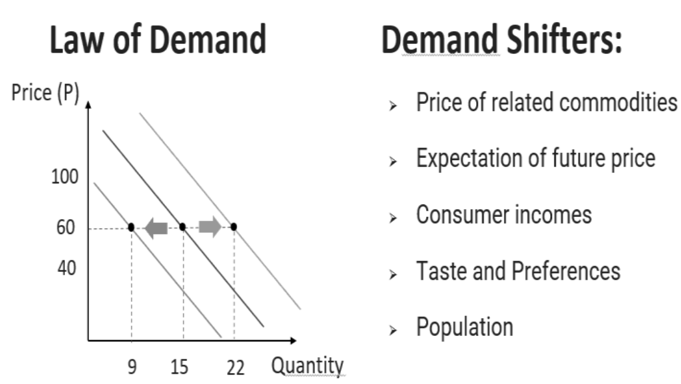
<u>Reasons for negative relationship:</u>

1. Substitution effect

   - occurs when a change in the price of a good causes consumers to substitute it with other goods

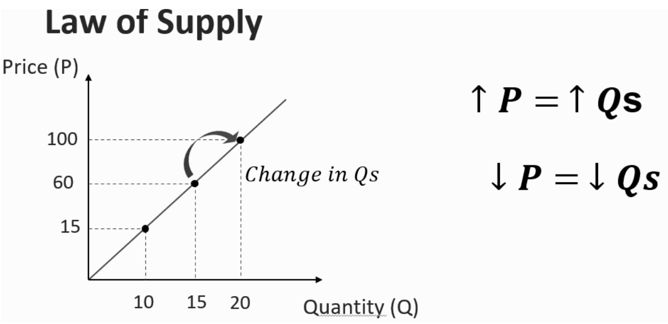
2. Income effect

   - occurs because a change in the price of a good affects the real purchasing power of consumers' incomes

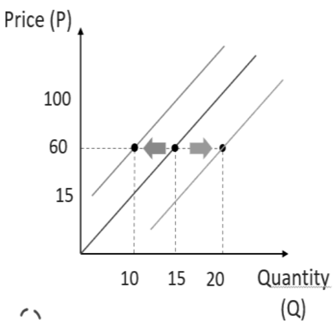


Supply - quantity of a good or service that producers are willing and able to offer for sale at various prices over a given period of time

Law of Supply - states there is a direct relationship between the price of a good or service and the quantity supplied, ceteris paribus

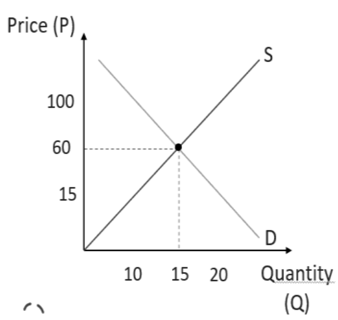


Law of Supply



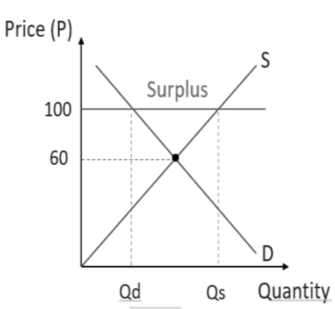
Supply Shifters:

- Price of resource/inputs
- Price of related commodities
- Weather
- Institutional factors
- Technology
- Expectation of future prices



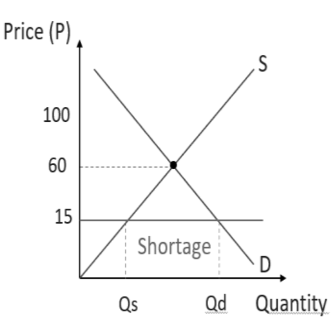
Market Equilibrium

- Quantities that firms want to sell is equal to the quantities that consumers want to buy
- Qd = Qs



Price Floor

- Government-imposed minimum price that must be paid for a good or service. It is set above the equilibrium price to ensure that prices do not fall below a certain level
- Minimum price policy

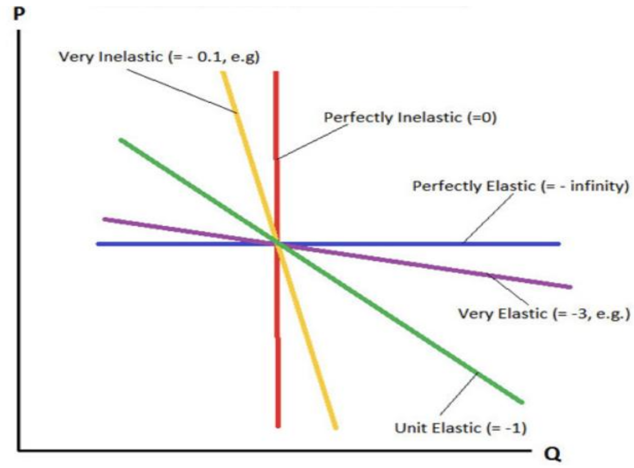


Price Ceiling

- Government-imposed maximum price that can be charged for a good or service. It is set below the equilibrium price to make essential goods more affordable for consumers
- Maximum price policy

Elasticity

- measure of variable's sensitivity to a change in other variable
- given the equation Y=f(X), the elasticity measures the responsiveness of Y to changes in X
- $Elasticity\ (\varepsilon)=\Delta Q/\Delta P$



Types of Elasticity

A. Perfectly Inelastic

- Qd or Qs does not change at all in response to price changes
- $|\varepsilon|$=0

B. Inelastic

- Qd or Qs changes, but by a smaller percentage than the price change
- $|\varepsilon|$<1

C. Unitary Elastic

- Percentage change in Qd or Qs is equal to the percentage change in price
- $|\varepsilon| = 1$

D. Elastic

- Qd or Qs changes by a greater percentage than the price change
- $|\varepsilon|$>1

E. Perfectly Elastic

- Any price change leads to an infinite change in quantity demanded or supplied
- $|\varepsilon|$=∞

Sample problem solving:

If the price of a good increases from P20 to P25 and the quantity demanded falls from 15 units to 10 units, the product is

Arc elasticity method $= \frac{\Delta Q}{\Delta P}$

$$|\varepsilon| = \frac{Q_2 - Q_1}{Q_2 + Q_1} \div \frac{P_2 - P_1}{P_2 + P_1}$$

$$|\varepsilon| = \frac{10 - 15}{10 + 15} \div \frac{25 - 20}{25 + 20}$$

$$\varepsilon = |-1.8| \ or\ 1.8$$

Tax Burden in relation to elasticities

- More **INELASTIC DEMAND** – consumer bears more of tax burden
- More **ELASTIC DEMAND** – producer bears more of tax burden
- More **INELASTIC SUPPLY** – producer bears more of tax burden
- More **ELASTIC SUPPLY** – consumer bears more of tax burden

<u>How does price elasticity affect total revenue?</u>

<u>Elastic</u>

$$\uparrow P \downarrow Q = \downarrow TR$$

<u>Inelastic</u>

$$\uparrow P \downarrow Q = \uparrow TR$$

Cross Price Elasticity

1. Positive Cross Price Elasticity
   - Goods are substitutes
   - increase in the price of good Y leads to an increase in the quantity demanded of good X
   - price of tea increases, the demand for coffee might increase
2. Negative Cross Price Elasticity
   - Goods are complements
   - increase in the price of good Y leads to a decrease in the quantity demanded of good X
   - if the price of tractors increases, the demand for agricultural machinery parts may decrease since they are used together

Sample Problem Solving:

Suppose the price of butter increases by 10%, and as a result, the quantity demanded for margarine increases by 5%. What is the cross-price elasticity?

$$\varepsilon_{xy} = \frac{\%\Delta Q_x}{\%\Delta P_y}$$

$$\varepsilon_{xy} = 0.5$$

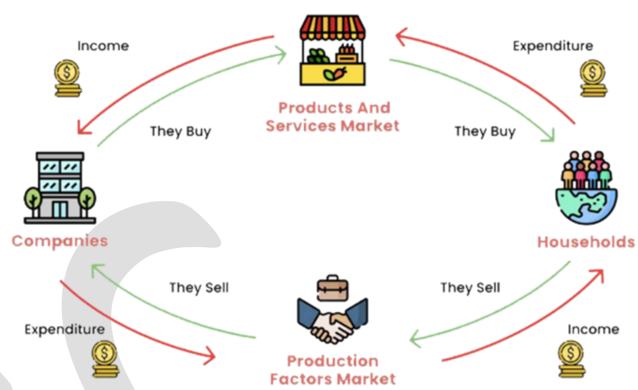
*Positive cross price elasticity → + 0.5

MACROECONOMICS

National Income Accounting

- system used in economics to measure the overall economic activity of a country
- Measurement of indicators of national output or income
- Components: GDP, GNP, Disposable income, etc.

Circular Flow Diagram



Gross Domestic Product - economic indicator that measures the total market value of all goods and services produced within a country's borders during a specific period, usually a year or a quarter

Three Approaches:

1. Expenditure approach - summing up total spending on the nation's goods and services.

   GDP = C + I + G + (X-M)

2. Income approach - method calculates GDP by adding up all incomes earned by factors of production (such as wages, profits, rents, and taxes, minus subsidies) within a country

3. Value-Added Approach - measures the contribution of each firm or sector to the overall production of goods and services within an economy

   GDP = AFF + I + S

Sample GDP Concept: The value of goods and services produced entirely within the borders of the Philippines, including by foreign companies, is measured.

Gross National Product - measure of the total market value of all final goods and services produced by a country's residents in a given period, typically a year or a quarter, regardless of where that production takes place

GNP = GDP + Net Income from Abroad

Sample GNP Concept: The earnings of a Filipino citizens from their business operations in Germany are included in the national income calculation.

Consumption and Savings

1. Marginal Propensity to Consume - measures the proportion of additional income that a household or individual will spend on consumption rather than saving

2. Marginal Propensity to Save - portion of additional income that a household or individual saves rather than spends on consumption.

General Formula:

MPC + MPS = 1

Sample Problem Solving:

A corn farmer in Isabela earns an additional income of ₱12,000 after selling produce during harvest season. The farmer decides to spend ₱9,600 of this income on fertilizer, labor, and irrigation repairs.

What is the farmer's Marginal Propensity to Save (MPS)?

Remember: MPC + MPS = 1, therefore

$$MPC = \frac{9600}{12000}$$

$$MPC = 0.80$$

0.80 + MPS = 1

MPS = 1 – 0.80

MPS = 0.20

Types of Unemployment

1. Frictional Unemployment

- temporary unemployment that occurs when individuals are transitioning between jobs, entering the workforce for the first time, or re-entering it after a break

2. Structural Unemployment

- form of unemployment arising from shifts in the economy that create a mismatch between the skills of the workforce and the needs of employers

3. Cyclical Unemployment

- occurs during periods of economic downturns, such as recessions, when there is a general decline in demand for goods and services, leading to reduced production and, consequently, layoffs

4. Seasonal Unemployment

- linked to specific seasonal industries or occupations that experience fluctuations in demand due to seasonal changes.

Business Cycle - Depicts the rise and fall in output (production of goods and services) overtime

4 phases:

1. Expansion

- Increase in production and output
- Decrease in unemployment
- Increase in wages
- Increase in consumer spending

2. Peak

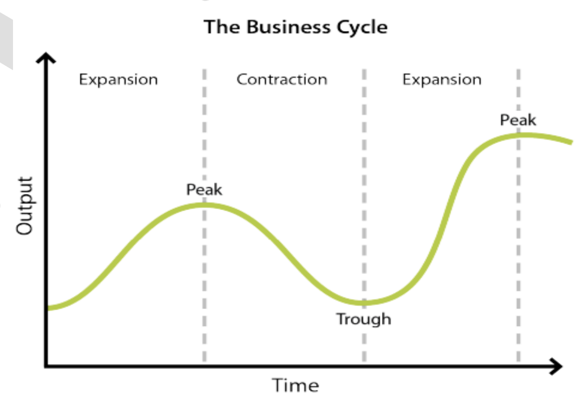
- Highest point between the end of an economic expansion and the start of a contraction in a business cycle
- Real GDP spending in an economy is at it highest level

3. Contraction

- decrease in production and output
- increase in unemployment
- decrease in wages
- decrease in consumer spending

4. Trough

- Lowest point in the cycle
- Marks the end of a period of declining business activity and the transition to expansion
- Negative GDP, higher unemployment, layoffs, declining business sales and earnings



Inflation - rate at which the general level of prices for goods and services rises, eroding purchasing power

Causes of Inflation

1. Demand-pull inflation – caused by increase in aggregate demand, exceeding aggregate supply

2. Cost-push inflation – caused by increase in the cost of production of inputs like raw materials and wages

Types of Inflation

1. Disinflation - decrease in the rate of inflation. Prices continue to rise but at a slower pace

2. Deflation - sustained decrease in the price level of goods and services

3. Hyperinflation - extreme form of inflation, characterized by very high and typically accelerating inflation rates

4. Stagflation - refers to a situation where inflation is high, the economic growth rate slows, and unemployment remains steadily high

Consumer price index

- measure of change in the average retail prices of a fixed basket of commodities or goods and services commonly purchased by the households relative to a base year or base period
- used to adjust other economic series for price changes

Market Basket

- list of commodities or goods and services commonly purchased
- items included in market basket are chosen to reflect the spending habits and preferences of a specific group of consumers
- contains a variety of goods and services

Fiscal and Monetary Policy

Fiscal Policy - use of government spending and taxation to influence the economy

<u>Expansionary Fiscal Policy</u> – used to stimulate economic activity and growth, especially during a recession or economic slowdown

- Government spends more to circulate money in the economy, creating jobs and increasing consumer and business income
- Higher income promotes higher consumption which further boost economic activity
- Reduces taxes which leads to more disposable income → encourage people and businesses to spend more

$$\uparrow \boldsymbol{Spending} = \downarrow \boldsymbol{Tax}$$

<u>Contractionary Fiscal Policy</u> – used by government to reduce inflation, slow down an overheating economy, or control excessive growth

- Government cuts back on public spending to reduce the amount of money circulating in the economy
- Raises taxes to reduce disposable income → consumers and business will spend less

$$\downarrow \boldsymbol{Spending} = \uparrow \boldsymbol{Tax}$$

Monetary Policy - central bank controls the supply of money and interest rates to achieve sustainable economic growth

<u>Expansionary Monetary Policy</u>

- Central banks put more money in the financial system through:
  - Buying government bonds
  - Lowering reserve requirements
- Lowers interest rates to make borrowing cheaper for consumer and businesses

$$\uparrow \boldsymbol{money\ supply} = \downarrow \boldsymbol{interest}$$

<u>Contractionary Monetary Policy</u>

- Central banks reduce the amount of money circulating by:
  - Selling government bonds
  - Raising reserve requirements
- Higher interest rates make borrowing more expensive

$$\downarrow \boldsymbol{Money\ supply} = \uparrow \boldsymbol{Interest}$$

Commodity money - form of money that has intrinsic value because it is made up of a physical commodity

Fiat Money - currency that a government has declared to be legal tender, but it has no intrinsic value of its own.

Taxation

Progressive tax - tax rate increases as the taxable income increases

Proportional tax - same tax rate on all taxpayers, regardless of their income level

Regressive tax - tax rate decreases as the taxable amount increases

Specific/Excise tax - fixed amount charged per unit of a good or service

Ad valorem tax - based on the value or price of the good or service, charged as a percentage.

Banking

Fractional Reserve Banking System - a system that requires banks to keep only a fraction of their depositors' funds in reserve while the majority of the money is lend out.

Required reserves - Minimum amount of deposits that banks must keep as mandated by the central banks

Excess reserves - Bank reserves over and above the required reserves which can be loaned out

Money multiplier effect - allows creation of more money as a result of lending and re-depositing through fractional reserve banking system

$$\frac{1}{reserve\ requirement}$$

Types of Banks

1. Commercial Banks
   - Purpose: Serve a wide range of customers; focus on profit and growth.
   - Target Market: Businesses, individuals, large institutions.
2. Thrift Banks
   - Purpose: Primarily for savings and home financing; serve middle-income households
   - Target Market: Individuals, families, small businesses.
3. Rural Banks
   - Purpose: Cater to rural communities; support agriculture and local development
   - Target Market: Farmers, rural residents, small businesses.
4. Cooperative Banks
   - Purpose: Member-owned; provide financial services to members and promote savings.
   - Target Market: Cooperative members; local community members

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Agriculture and Economic Growth

<u>Economic Development</u>

- When a nation transitions from being an emerging economy to a more advanced or developed one
- process through which a country improves its economic wealth, industrial capabilities, and standard of living, moving from a lower-income status to higher income and more diversified economic structures

<u>Constitutional Development</u>

- refers to the creation and evolution of a country's legal and governmental framework

<u>Structural Development</u>

- refers to changes in the fundamental structure of the economy (e.g., a shift from agriculture to manufacturing or services)

<u>Social Development</u>

- deals with improvements in the well-being of the population, such as health, education, and equality.

Philippine Development Plan (2023-2028)

- A medium-term plan that covers a period of six years and is designed to outline the government's strategies, programs, and policies to achieve sustainable economic growth.
- second medium-term plan to be anchored on the 8-point socioeconomic agenda and is geared towards economic and social transformation to reinvigorate job creation and accelerate poverty reduction through inclusive economic growth

Intensive Agriculture

- focuses on maximizing yield from a given piece of land. It often involves the use of high levels of labor and inputs such as fertilizers, pesticides, and irrigation

Extensive Agriculture

- relies on larger areas of land with lower inputs of labor and capital, focusing on the natural productivity of the land and specialized farm machinery/equipment to attain economies of scale

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International Trade

Free Trade

- Complete lack of restriction on international trade
- Create an open market that encourages competition and efficiency

Law of Comparative Advantage

- States that a good will be produced in that country where its cost is least in terms of the other goods that it might produce with the same resources
- Basis for economic specialization