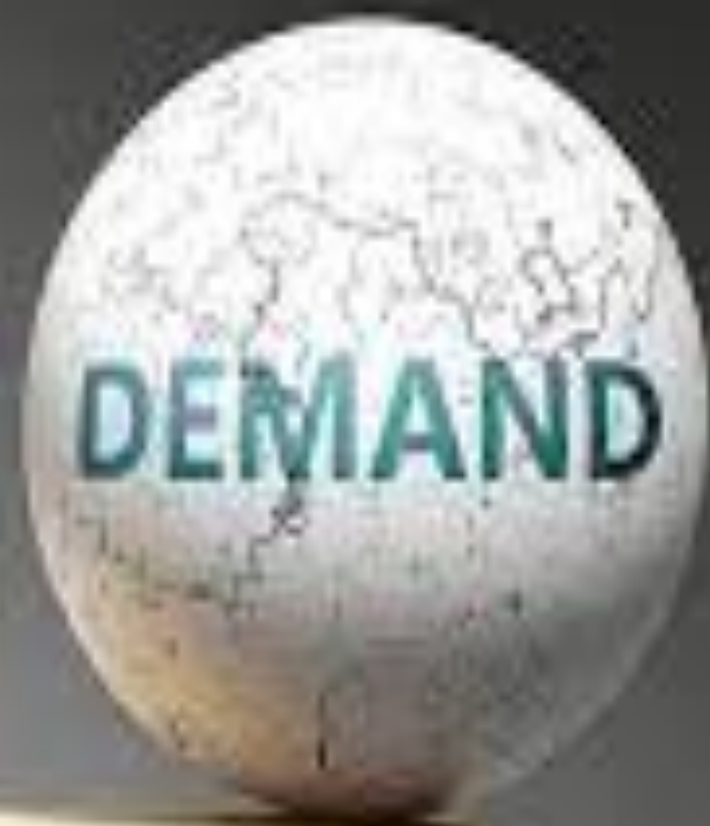


Chapter 2:

Demand and Supply in a context of a Market Economy



Elementary
notions

I- The
Demand

II- The
Supply

III- The
Market
Demand
and Supply

IV- Movements and
shifts along supply
and demand curves

The
Equilibrium
of the
Market

Elementary notions

1- Market

2 - Market Economy

3- Types of Markets

1- Market:

A place where **buyers** and **sellers** can meet to facilitate the **exchange** or transaction of goods and services.

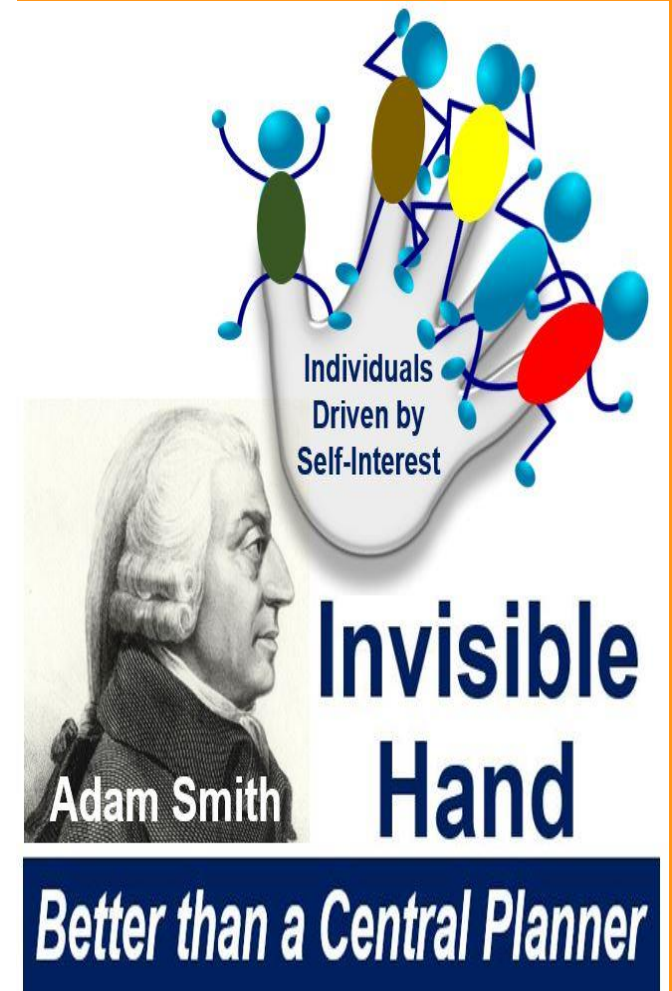
Markets can be:

- **physical** like a clothes store,
- **virtual** like an e-clothes store. ...



- Markets establish the **prices** of goods and services that are determined by **supply** and **demand**.

- The theoretical basis for market economies was developed by **classical economists**, such as [Adam Smith](#), David Ricardo, and Jean-Baptiste Say.
 - These classically liberal **free market** advocates believed that the **“invisible hand”** of the **profit motive** and **market incentives** generally guided economic decisions down more productive and efficient paths than government planning of the economy.
- ➡ Government intervention often tended to lead to economic inefficiencies that actually made people worse off.



« The Invisible hand »:

- Adam Smith introduced the concept of « the invisible hand » which is a metaphor for the unseen forces that move the free market economy
- The invisible hand is part of *laissez-faire*, meaning "let do/let go," approach to the market.
- In other words, the approach holds that the market will find its **equilibrium** without government or other interventions forcing it into unnatural patterns.

2- **Market Economy** is an economic system in which economic decisions and the pricing of goods and services are guided by the interactions of a country's individual citizens and businesses.

There may be some government intervention or central planning, but usually this term refers to an economy that is more market oriented in general.

- In a market economy, most economic decision making is done through voluntary transactions according to the **laws of supply and demand**.
- A market economy gives entrepreneurs the freedom to pursue profit by creating outputs that are more valuable than the inputs they use up, and free to fail and go out of business if they do not.

- Economists broadly agree that **market-oriented economies** produce better economic outcomes, but differ on the precise balance between markets and central planning that is best for a **nation's long-term wellbeing**.
- Every market transaction involves an exchange and thus some element of both supply and demand.

Main Characteristics of a Market Economy (free enterprise)

- Private Property.
- Economic Freedom to choose
- Motive of Self-Interest
- Competition.
- System of Markets and Prices
- Limited Government Involvement.



- 3- Types of Markets

- a- The market of goods and services

The **goods and services market** is where households purchase consumable items and businesses sell their wares. The market includes stores, the Internet, and any other place where consumer goods and services are exchanged.

b- The market of production factors

In Economics, a **factor market** is a market where **factors of production** are bought and sold.

Factor market **allocates** factors of production, including **land**, **labour** and **capital**, and **distribute income** to the owners of productive resources, such as wages, rents

c- The market of money

- The money market is a component of the economy which provides short-term funds.
- The money market deals in short-term loans, generally for a period of a year or less.

Expenditure ($\Sigma = \text{GDP}$)



Purchased goods and services

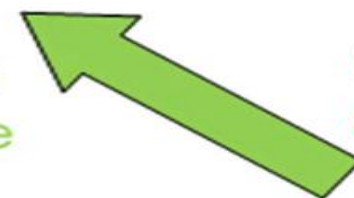
MARKET of goods and services

Revenue of firms ($\Sigma = \text{GDP}$)



Sold goods and services

Investment expenditure



HOUSEHOLDS

Savings



MARKET of money (assets)



Investment funds

FIRMS

Work, land, capital



Income ($\Sigma = \text{GDP}, Y$)

MARKET of production factors

Production inputs



Wages, rents profit ($\Sigma = \text{GDP}$)

- **The Law of Supply and Demand:** a theory that explains the interaction between the sellers of a resource and the buyers for that resource.
- The theory defines the **relationship** between the **price** of a given good or product and the **willingness** of people **to** either **buy** or **sell it**.

- Generally, as price increases, people are willing to supply more and demand less and vice versa when the price falls.
- The theory is based on two separate « laws » :
 - the law of demand
 - the law of supply
- The two laws **interact** to determine:
 - the actual **market price**
 - The **volume of goods** on a market.

- For economics, the "**movements**" and "**shifts**" in relation to the supply and demand curves represent very different market phenomena.
- **Movement** refers to **a change along a curve**.
- On the **demand curve**, a movement denotes a change in both price and quantity demanded from one point to another on the curve. The movement implies that the demand relationship remains consistent. It's occurs when a change in the quantity demanded is caused only by a change in price, and vice versa.

A shift in a demand or supply curve occurs when a good's quantity demanded or supplied changes even though the price remains the same.

I- The Demand

- I-1- Individual Demand
- I-2- Determinants of Demand
- I-3- Law of Demand
- I-4- Demand Schedule
- I-5- Demand Curve
- I-6- Movements v/s shifts in Demand

I-1- Individual Demand

- A demand exists only if someone is both willing and able to pay for a good.
- How much someone is willing to pay for something is determined by his/her income and the opportunity cost.
- Opportunity cost – the most desired goods or services foregone in order to obtain something else

I-2- Determinants of Demand



I-3- Function of Demand

Individual Demand is a Function of:

$$D_x = f(P_x, I, P_r, E, T)$$

- Demand of Commodity x (D_x)
- Function of commodity x (f)
- Price of good or service (P_x)
- Incomes of consumers (I)
- Prices of related goods & services (P_r)
- Future Expectation of product (E)
- Taste patterns of consumers (T)

I-4- Law of Demand

- The quantity of a good demanded in a given time period increases as its price falls, *ceteris paribus*.
- There is an inverse or negative relationship between price and quantity demanded, *ceteris paribus*.
- The law of demand says that **at higher prices, buyers will demand less of an economic good.**

I-5-Demand Schedule

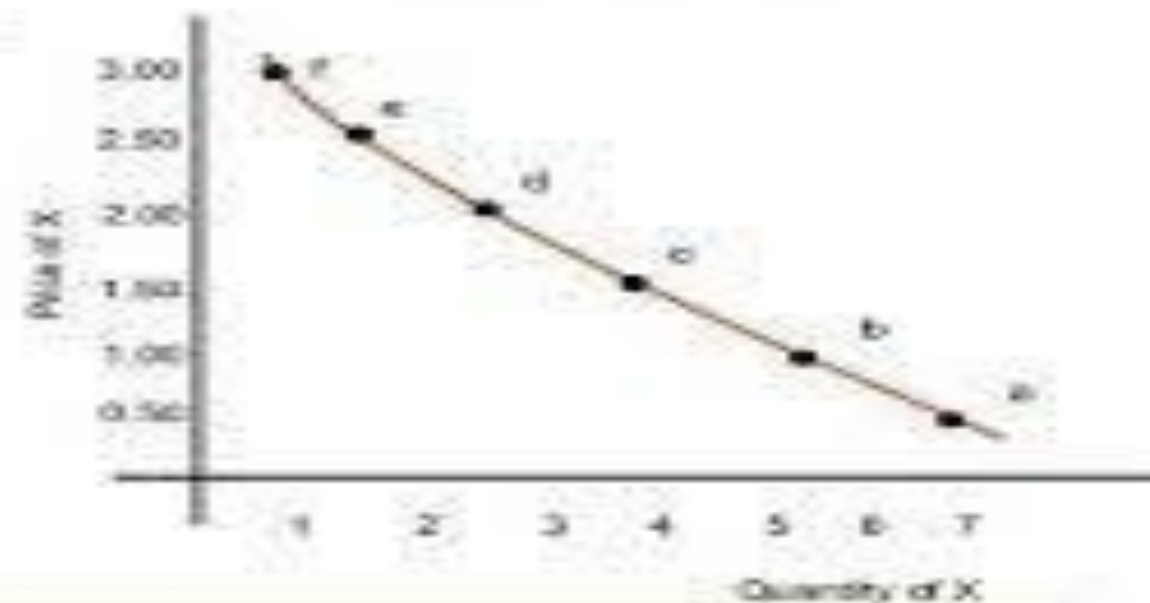
- A table showing the quantities of a good a consumer is willing and able to buy at alternative prices in a given time period, *ceteris paribus*.
- Demand is an expression of buyer intentions, of a willingness to buy, not a statement of actual purchases.

Demand Schedule and Individual Demand Curve

Demand Schedule

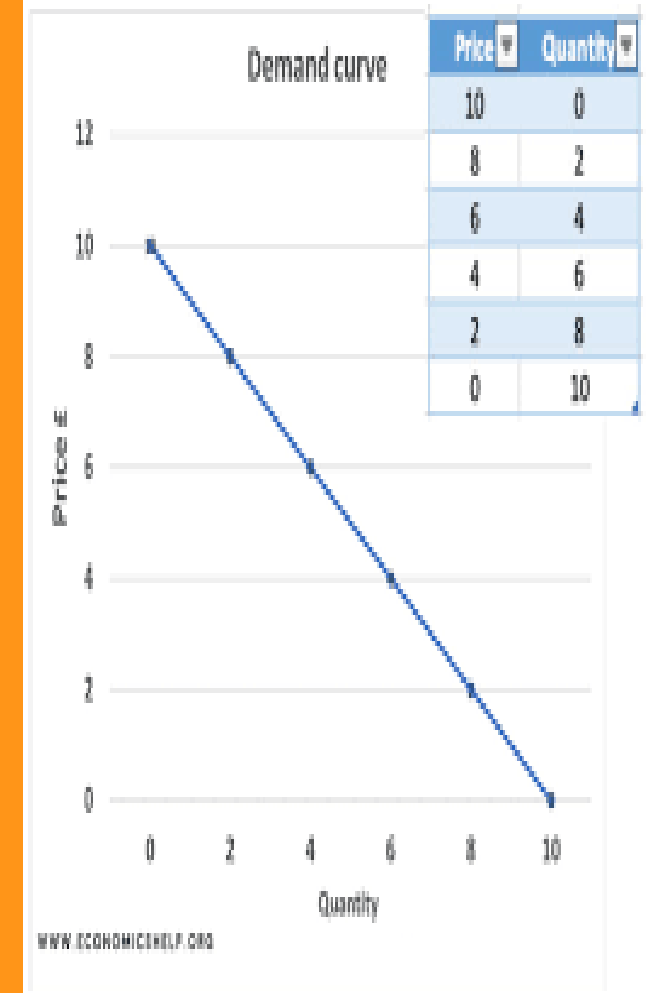
Point	Price (\$/kg per unit)	Quantity demanded of X (kg. per month)
a	0.50	7.0
b	1.00	5.0
c	1.50	3.5
d	2.00	2.5
e	2.50	1.5
f	3.00	1.0

Demand Curve



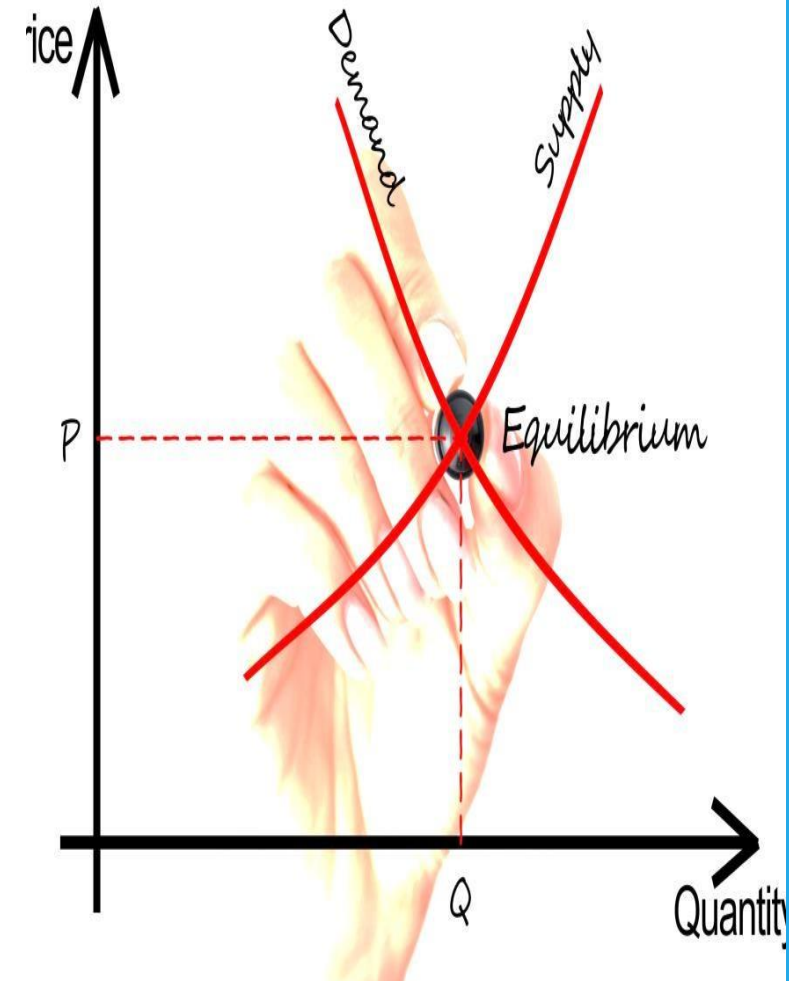
I-6- Demand Curve

- **A curve** describing the quantities of a good a consumer is willing and able to buy at alternative prices in a given time period, *ceteris paribus*.
- The demand curve does not state actual purchases, rather only what consumers are willing and able to purchase.



The Use of Demand Curves

- Show how much consumers will spend at different prices.
- Predict the amount to produce at a given price.
- Determine the price that will result in desired output levels.

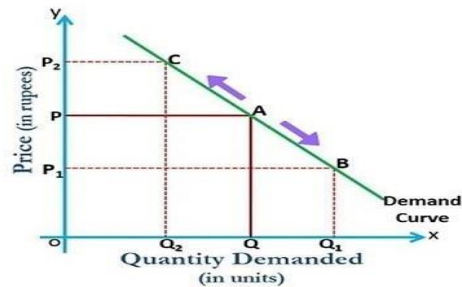


Lecture 2

I-2- Movement v/s Shift in Demand -1 -

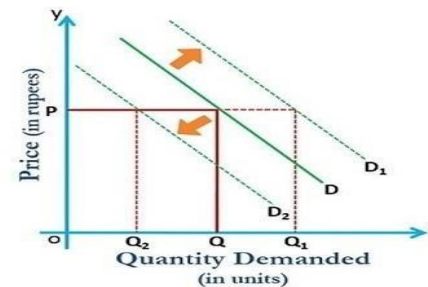
- Movements along a demand curve are a response to price changes for that good.
- Shifts of the demand curve occur only when the determinants of demand change.

Movement



Vs

Shift



In Demand Curve

Key Differences

- The demand schedule and curve remain unchanged only so long as the underlying determinants of demand remain constant.
- Changes in any of the determinants of demand will cause the demand curve to shift.
- The quantity demanded at any (every) given price changes.
- The demand curve always shifts only to the right or to the left.

Factors that Shift the Demand Curve

- What are some factors that may cause the demand curve to shift?
 - Income
 - Wealth
 - Prices of related goods
 - Population changes
 - Expected changes in price
 - Tastes/ Preferences

II- The Supply

- II-1- Individual Supply
- II-2- Determinants of Supply
- II-3- Law of Supply
- II-4- Supply Schedule
- II-5- Supply Curve
- II-6- Movements v/s shifts in Supply

II-1- Individual Supply

- Supply is defined as the **quantity** of a specific **good or service** that producers are willing to provide over a given period of time.
- **Individual supply** describes the willingness of an individual firm to provide a specific quantity of a good or service to the market over a given period of time.

II-2- Determinants of Supply

- Technology
- Factor (or resource) costs
- Other goods
- Taxes and subsidies
- Expectations
- Number of sellers

II-3- Function of Supply

Individual Supply is a Function of:

$$S_x = f(P_x, P_I, T, W, GP)$$

- S_x = supply of commodity x
- P_x = Price of commodity x
- P_I = Price of inputs
- T = Technology
- W = Weather conditions
- GP = Government Policy

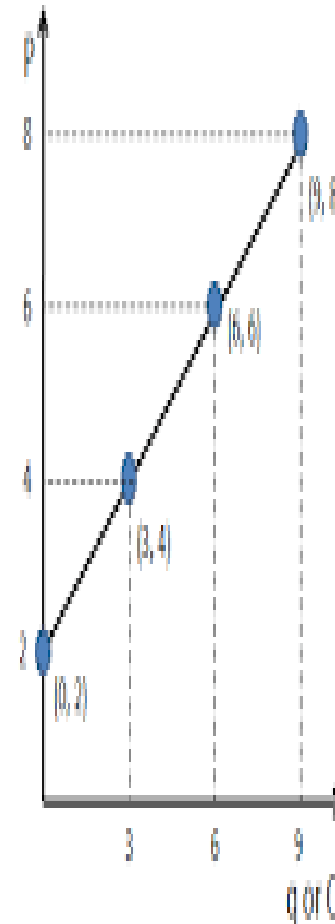
II-4- Law of Supply

- The quantity of a good supplied in a given time period increases as its price increases, *ceteris paribus*.
- There is a direct or positive relationship between price and quantity supplied, *ceteris paribus*.

II-5- Supply schedule

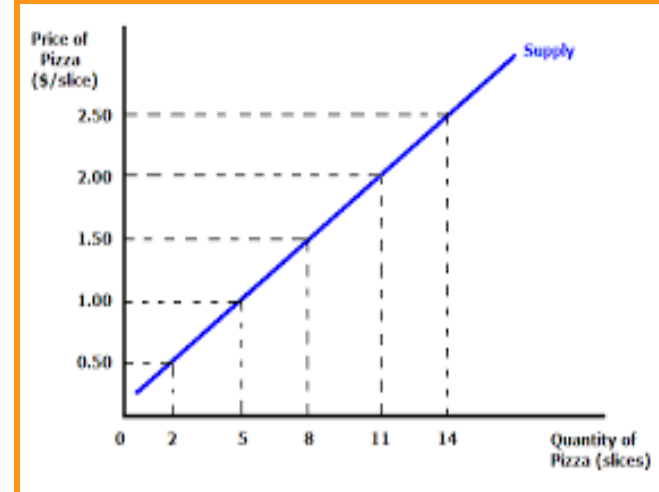
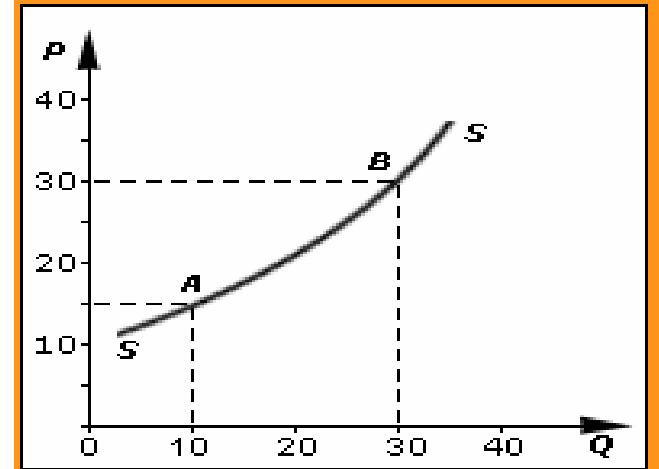
Supply schedule is a chart that shows how much product a supplier will have to produce to meet consumer demand at a specified price based on the supply curve. In other words, it's basically a supply graph in spreadsheet form listing the quantity that needs to be produced at each product price level.

Price	Quantity Supplied
\$2	0
\$4	3
\$6	6
\$8	9



II-6- Supply curve

- The **supply curve** is a graphic representation of the correlation between the cost of a good or service and the quantity supplied for a given period. |
- In a typical illustration, the price will appear on the left vertical axis, while the quantity supplied will appear on the horizontal axis.



III- The Market Demand and Supply

III-1- Market Demand

III-2- Market Supply

III-1- Market Demand

a- Definition

- The total quantities of a good or service people are willing and able to buy at alternative prices in a given time period.
- The sum of individual demands.
- Market demand is determined by the number of potential
- buyers and their respective tastes, incomes, other goods, and expectations.

b- Function of Demand

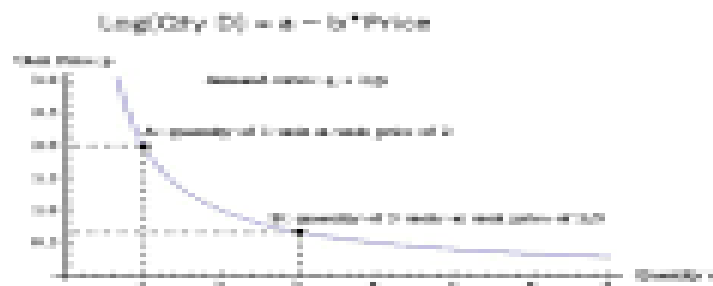
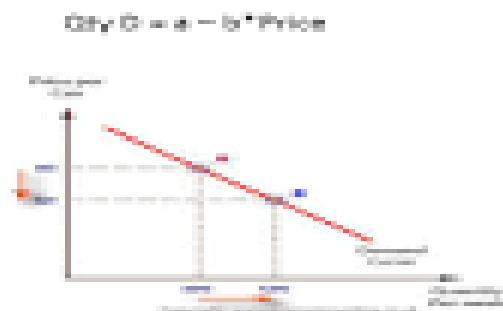
Market Demand is a Function of: $D_x = f(P_x, P_r, Y, T, F, P_D, S, D)$

- D_x = Market demand of commodity x
- P_x = Price of given commodity x;
- P_r = Prices of Related Goods
- Y = Income of the consumers;
- P_0 = Size and Composition of population;
- S = Season and Weather;
- D = Distribution of Income.

c- Market demand curves

A picture of the total quantities demanded by all consumers within a market at different prices.

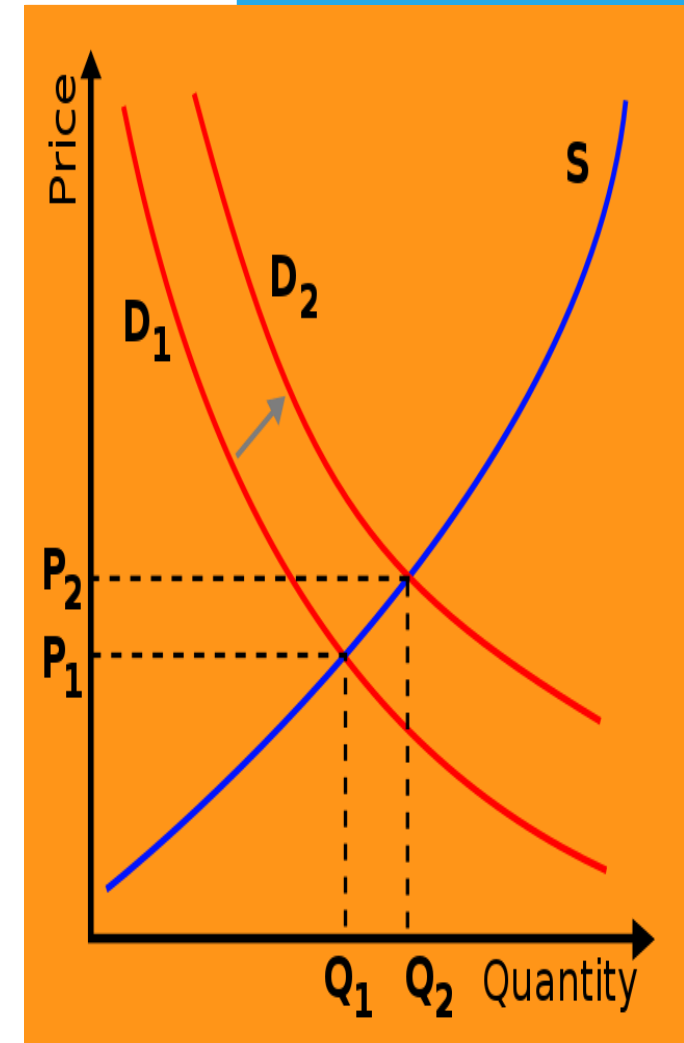
Different Types of Demand Curves: Linear and Non-Linear



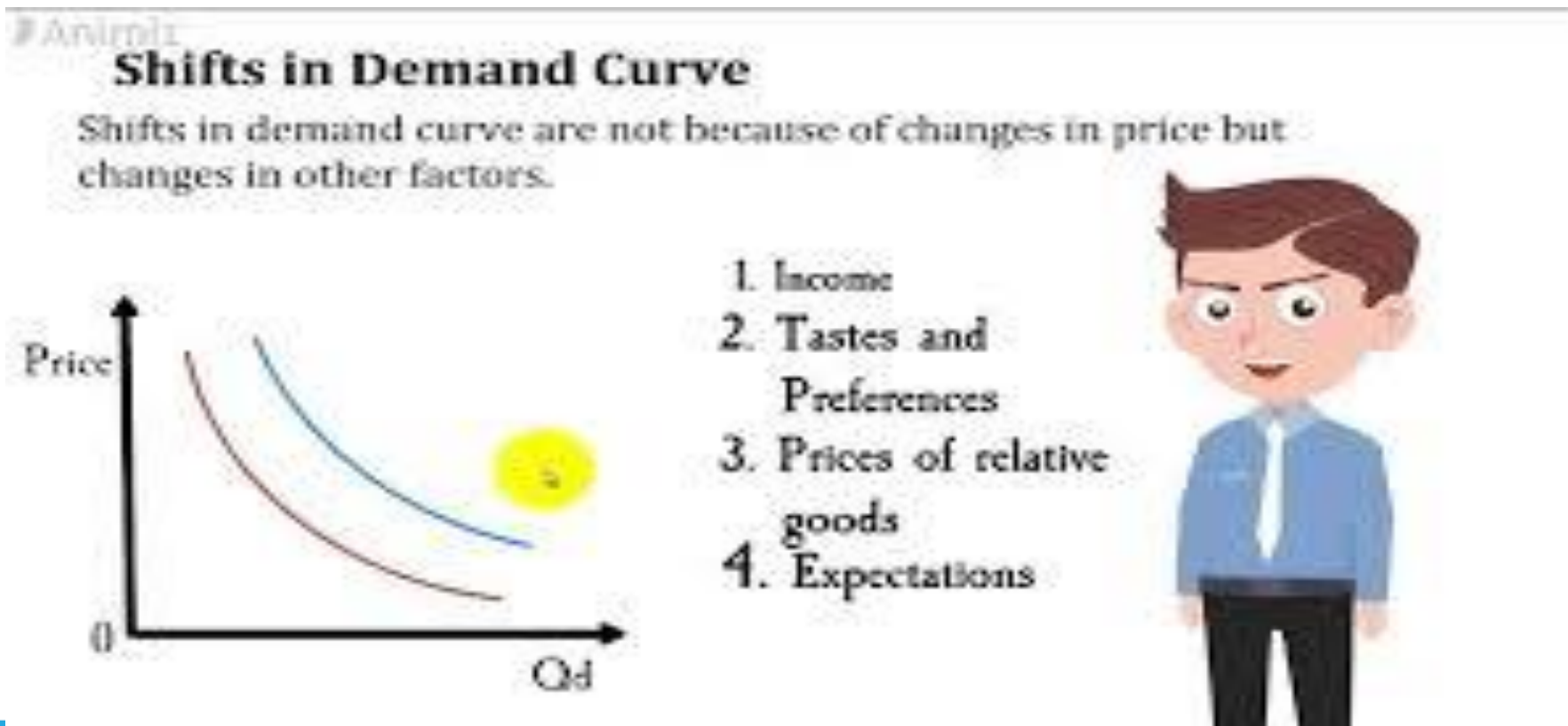
Shape of Demand Curve – depends on consumer's response to price changes.
If always constant $\rightarrow$ linear. If it varies with price changes $\rightarrow$ non-linear

d- Shift in Demand

A shift in the demand curve is **when a determinant of demand other than price changes**. It occurs when demand for goods and services changes even though the price didn't. ... It's guided by the law of demand which says people will buy fewer units as the price increases.



e- Factors that shift demand curves



III-2- Market Supply

a- Definition

- Supply interacts with demand to determine the price that will be charged.
- Market supply is an expression of sellers' intentions—of the ability and willingness to sell—not a statement of actual sales.
- The total quantities of a good or service that sellers are willing and able to sell at alternative prices in a given time period, *ceteris paribus*.

b- Market supply curves



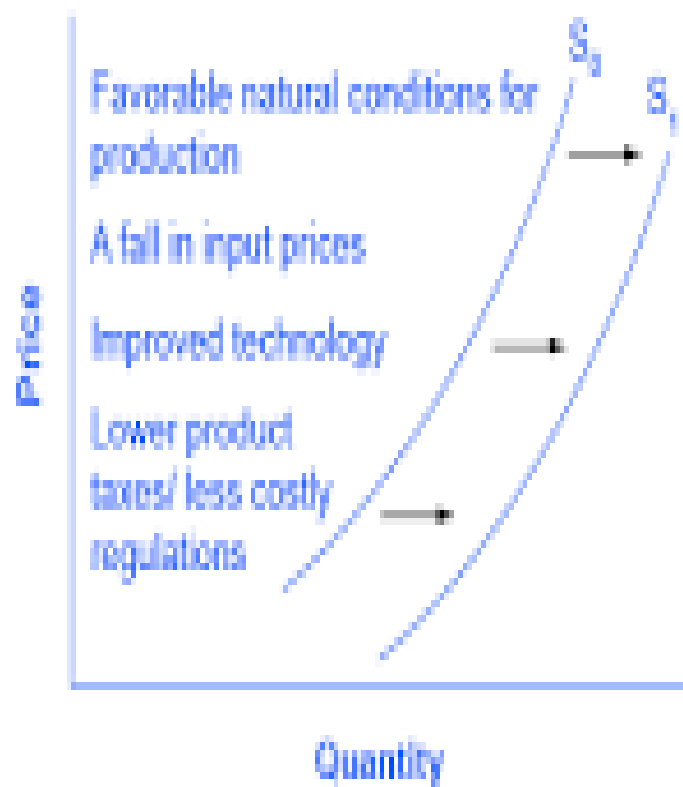
(a)



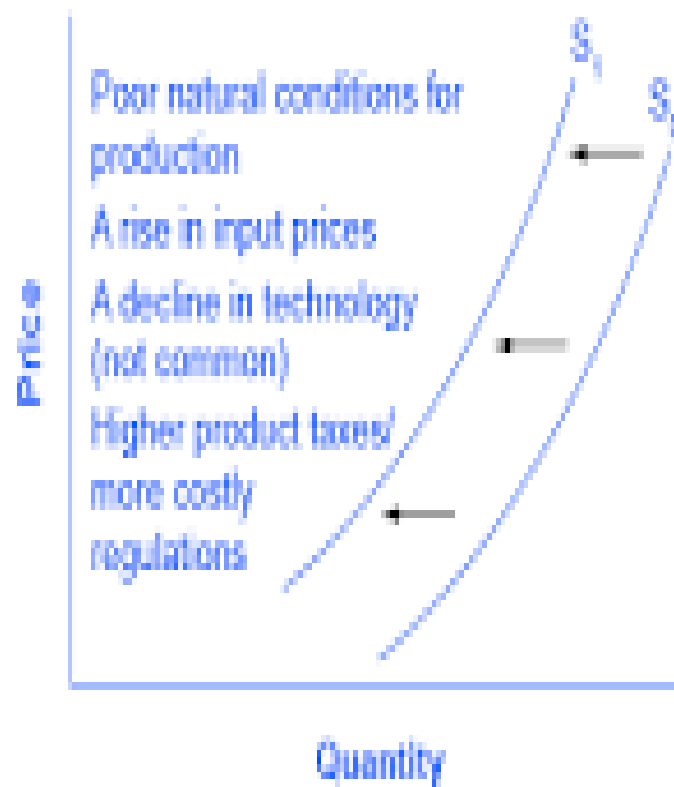
(b)

Figure 1 The aggregate supply curve

c- Shift in Supply



(a) Factors that increase supply



(b) Factors that decrease supply

d- Factors that shift supply curves



7 FACTORS can produce a
Change in Supply



S = Change in the number of Sellers

P = Productivity changes

I = Improvements in Technology

C = Cost of inputs (resources, land, labor, capital equipment, etc.)

E = Expectations about the future change

R = Regulations (change in regulations can increase or reduce costs)

S = Subsidies and taxes (higher taxes/lower subsidies move curve to left; lower taxes/higher subsidies to the right)

IV- Movements and shifts along supply and demand curves

IV-1- Movements along curves

IV-2- Shift along curves

IV-1- Movements along curves

- a movement along the **supply curve** means that the supply relationship remains consistent.
- Therefore, a movement along the supply curve will occur when the price of the good changes and the quantity supplied changes in accordance to the original supply relationship.
- In other words, a **movement** occurs when a **change** in **quantity supplied** is caused only by a **change in price**, and vice versa.

IV-2- Shift along curves

- **shift** in a demand or supply curve occurs when a good's quantity demanded or supplied changes even though the price remains the same.
- Shifts in the demand curve imply that the original demand relationship has changed, meaning that **quantity demand** is **affected by a factor other than price**.

IV-2-1- Shift in Supply

Change in supply refers to a **shift**, either to the **left** or **right**, in the entire price-quantity relationship that defines a supply curve.

Essentially, a change in supply is an **increase** or **decrease** in the **quantity** supplied that is paired with a **higher** or **lower** supply price.

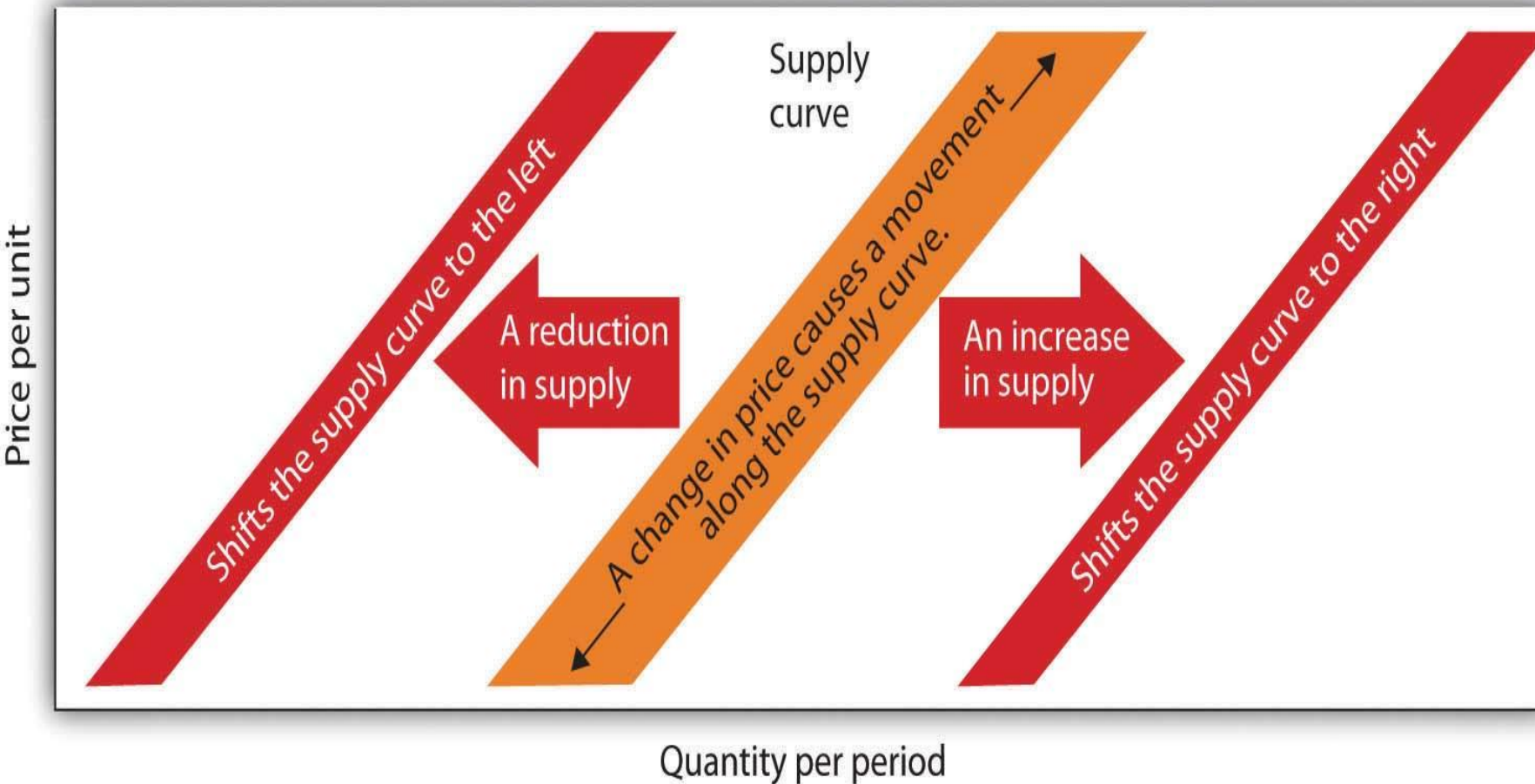
IV-2-2- Factors that shift supply curves

Factors that shift supply curves left or “in”

1. A decrease in producers
2. A decrease in technology
3. An increase in input cost
4. An increase in the price of a related output

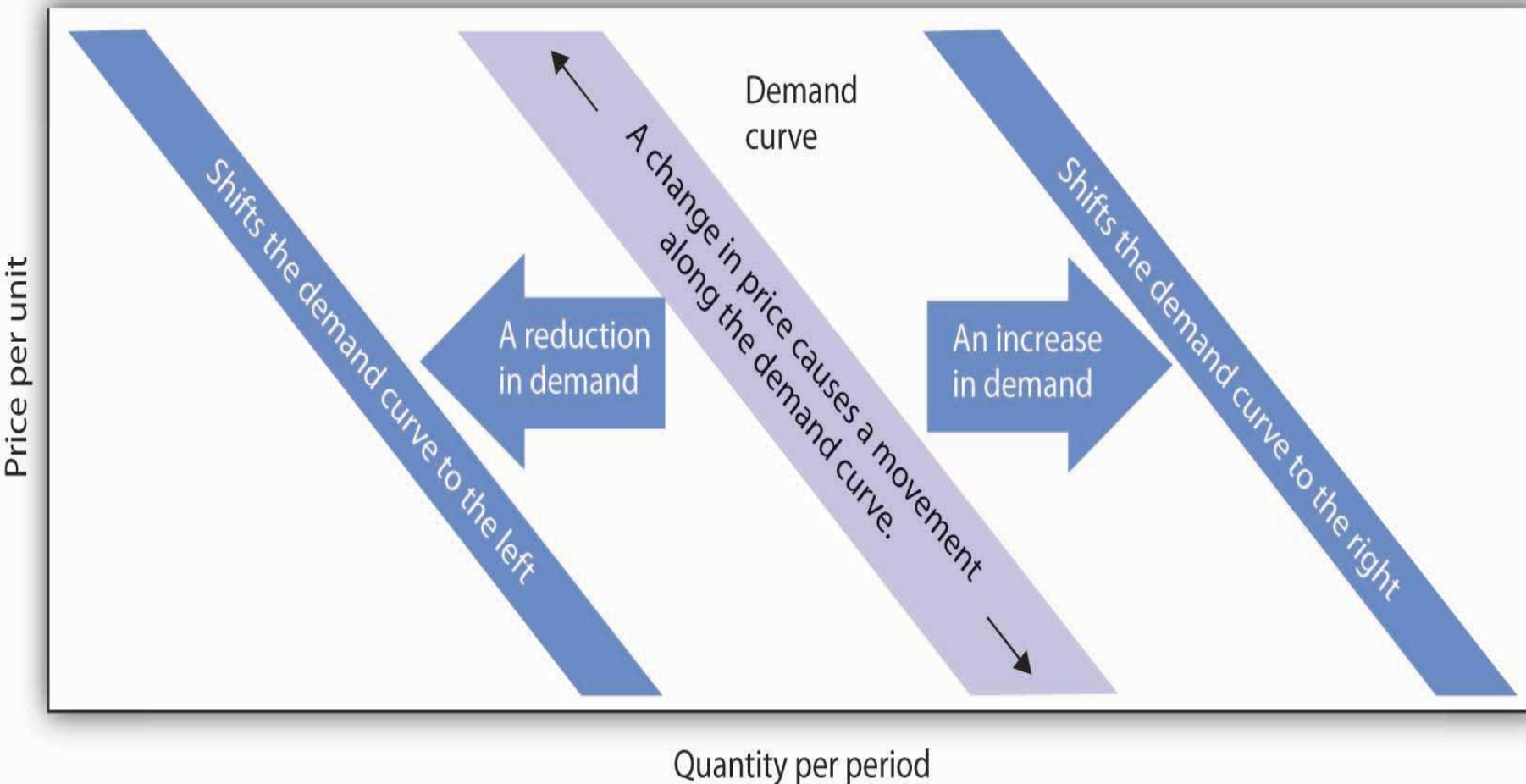
Factors that shift supply curves right or “out”

1. An increase in producers
2. An increase in technology
3. A decrease in input cost
4. A decrease in the price of a related output



IV-2-3-Shift in Demand

A shift in demand means that at any price (and at every price), the quantity demanded will be different than it was before. Following is an example of a shift in demand due to an income increase.



Factors that Shift the Demand Curve

• Five Principle Factors

1. Changes in the price of related goods or services.
2. Changes in income.
3. Changes in taste.
4. Changes in expectations.
5. Changes in the number of consumers.



Factors that Shift the Supply Curve

• Five factors

1. Changes in input prices
2. Changes in technology
3. Changes in the number of producers
4. Changes in the price of related goods or services
5. Changes in expectations



V- The Equilibrium of the Market

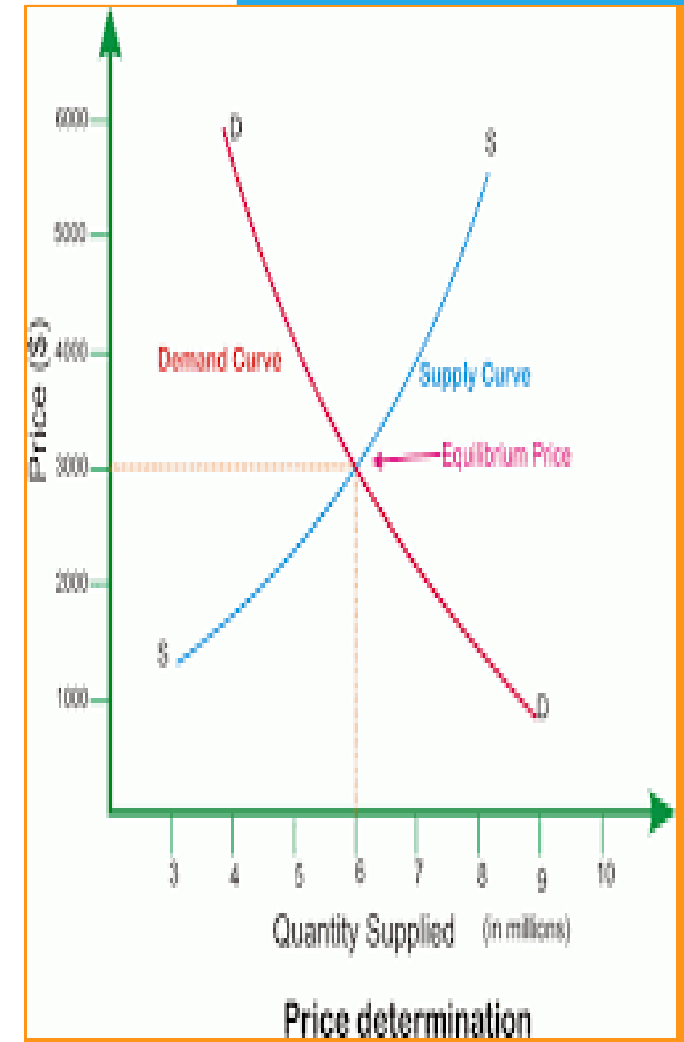
Lecture 2

V- Equilibrium of the Market -1-

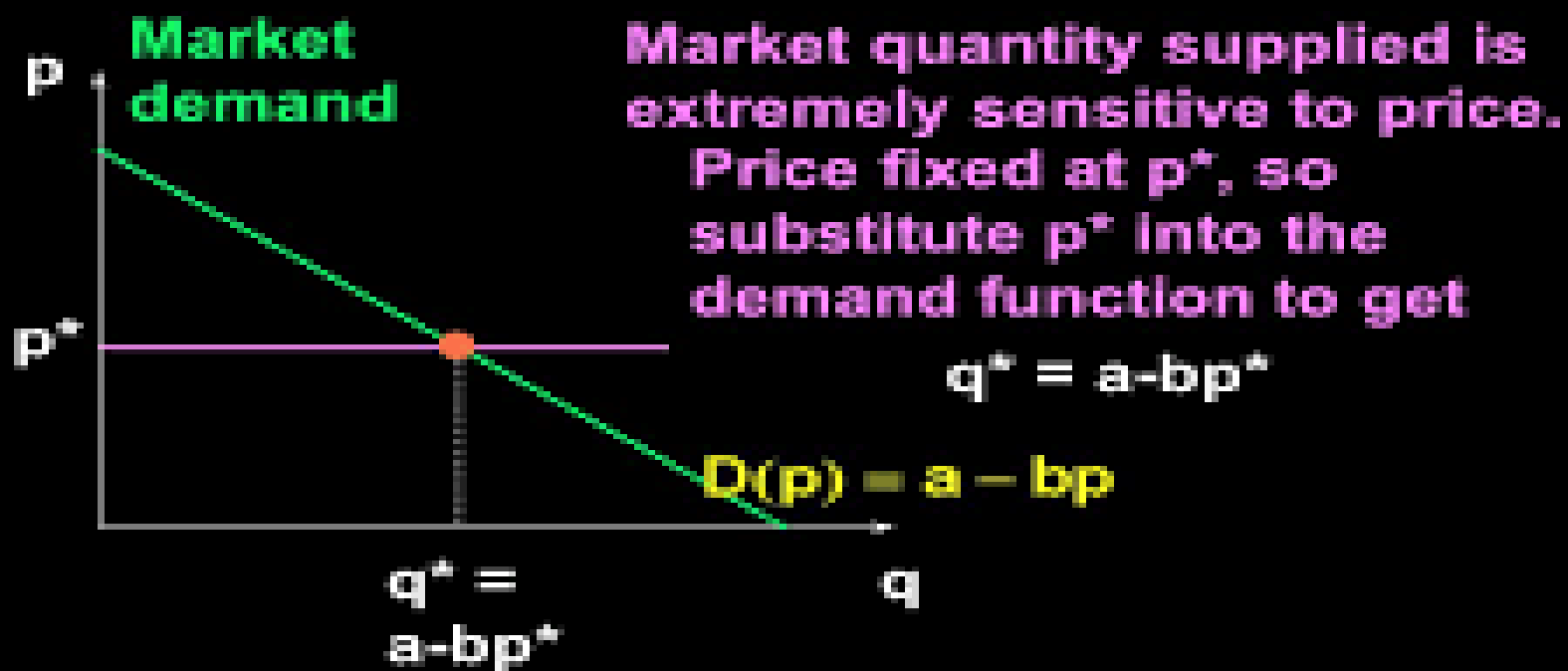
When the **supply** and **demand curves intersect**, the market is in **equilibrium**.

This is **where the quantity demanded and quantity supplied are equal**:

- The corresponding price is **the equilibrium price** or market-clearing price
- the quantity is **the equilibrium quantity**.



Market Equilibrium



$$Q_d = Q_s$$

$$Q_d = a - bP$$

$$Q_s = -c + dP$$

Review

Summary



Lecture 2

Market Economy



Private property



Limited government

CHARACTERISTICS OF A MARKET ECONOMY



Freedom of choice



System of markets
and prices

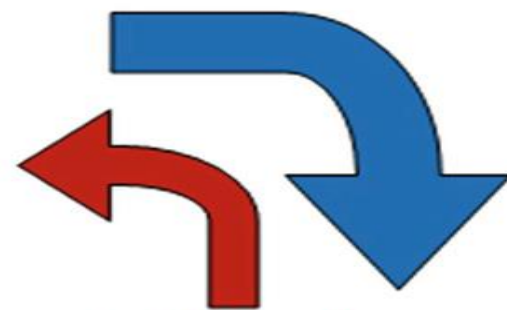
Expenditure ($\Sigma = \text{GDP}$)



Purchased goods and services

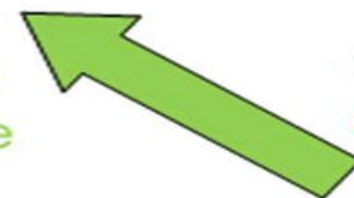
MARKET of goods and services

Revenue of firms ($\Sigma = \text{GDP}$)



Sold goods and services

Investment expenditure



Savings



MARKET of money (assets)



Investment funds

FIRMS

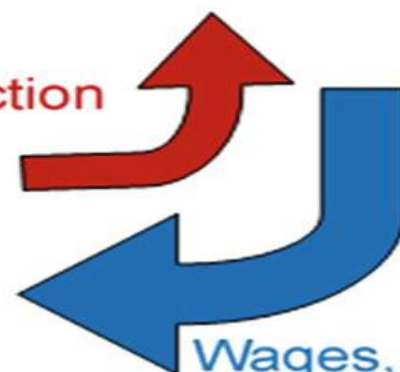
Work, land, capital



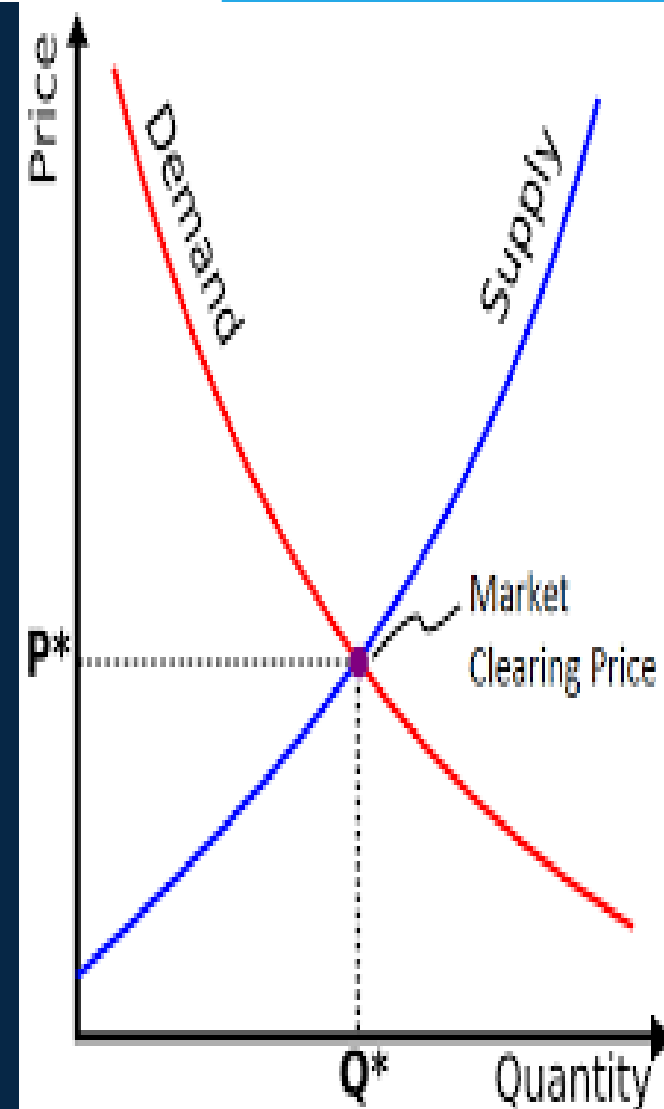
Income ($\Sigma = \text{GDP}, Y$)

MARKET of production factors

Production inputs

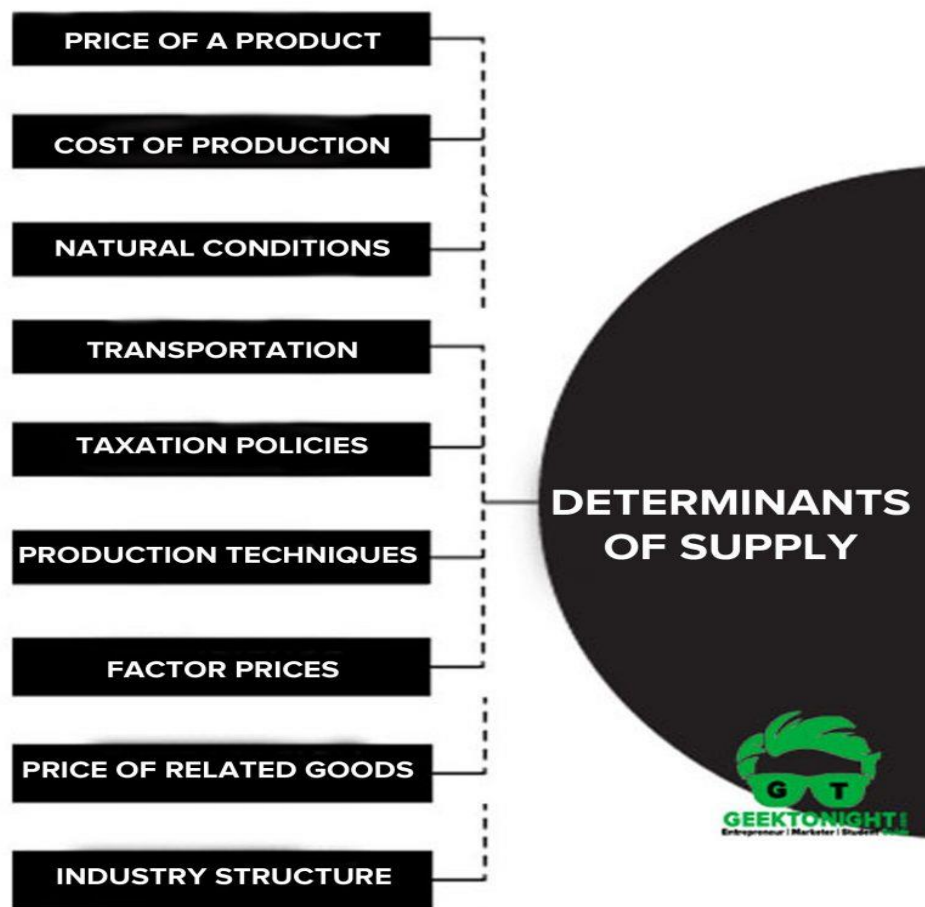


Wages, rents profit ($\Sigma = \text{GDP}$)



Lecture 2

Determinants of Demand & Supply



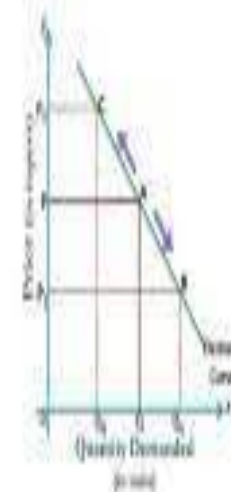
Lecture 2

Factors affecting Demand & Supply

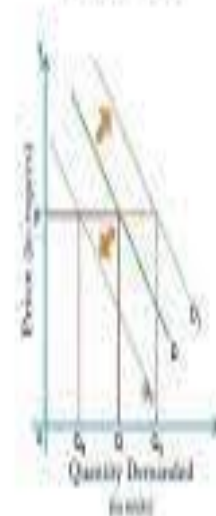
Factors Affecting Supply and Demand



Movement



Shift



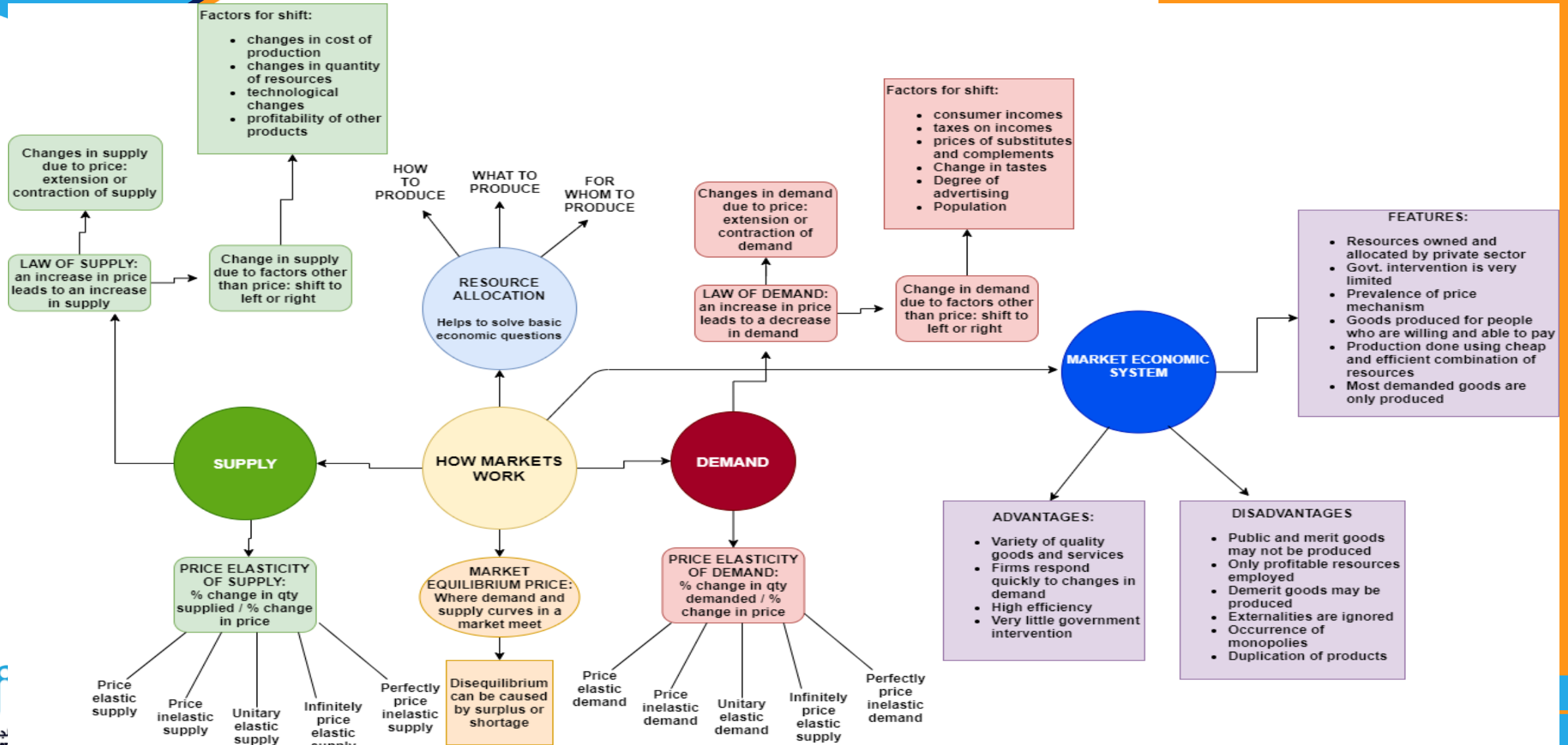
Vs

In Demand Curve

Key Differences

Lecture 2

How markets work: Factors affecting Supply & Demand



Lecture 2

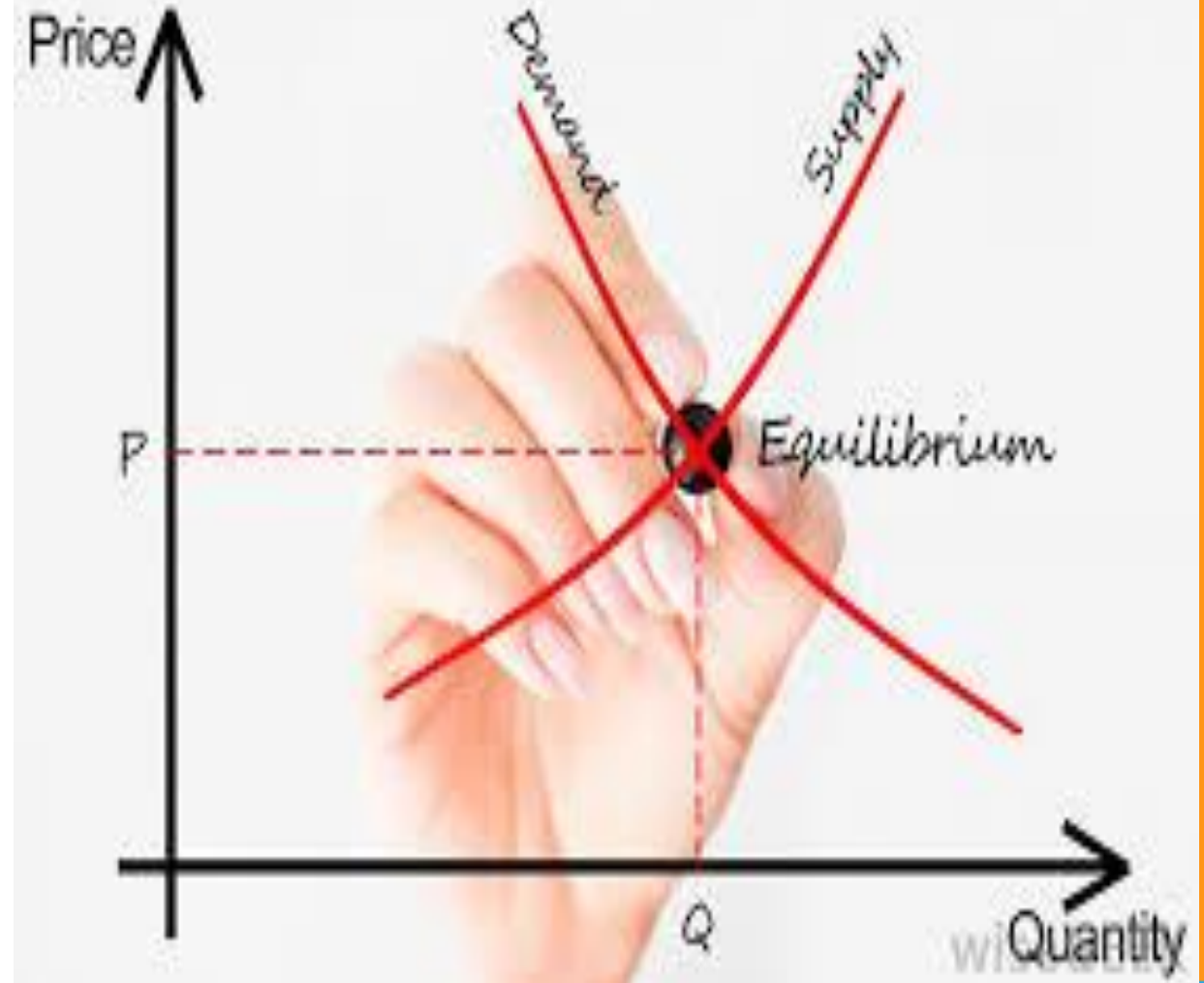
Market Equilibrium

Market Equilibrium



- Equilibrium means a **state of equality or balance** between market demand and market supply
- Prices where demand and supply are out of balance are called points of **disequilibrium**

tutor2u



Good bye !

