

SUPPLY



SUPPLY

Supply refers to the quantity of a good which a firm is ready to sell at a given price and in a given period of time.

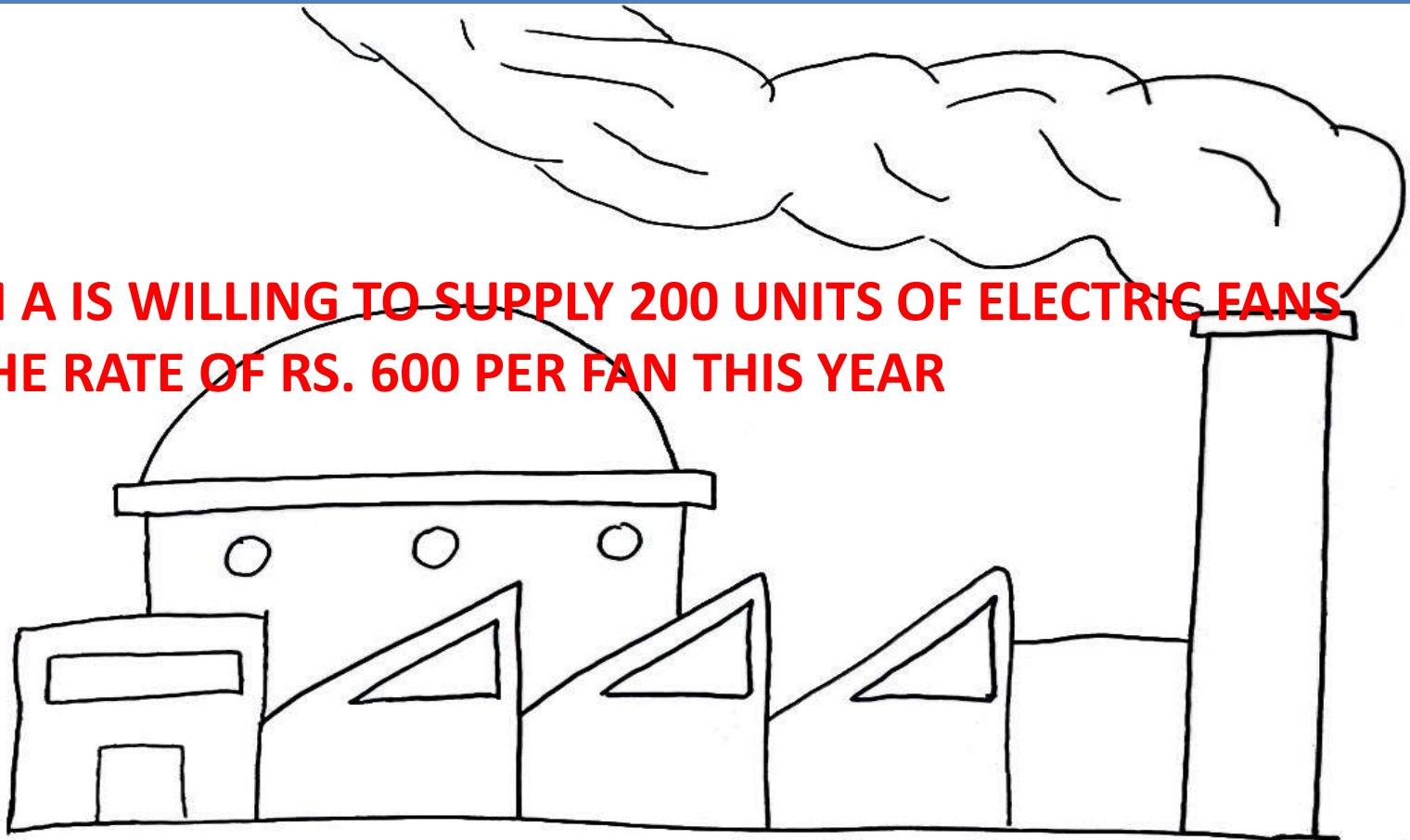
**WE ARE READY TO SELL
THOUSAND UNITS OF
BED SHEETS AT THE RATE OF
RS. 500 EACH THIS YEAR**



INDIVIDUAL SUPPLY

- Individual supply refers to the quantity of a good which a single firm is ready to sell at a given price and in a given period of time.

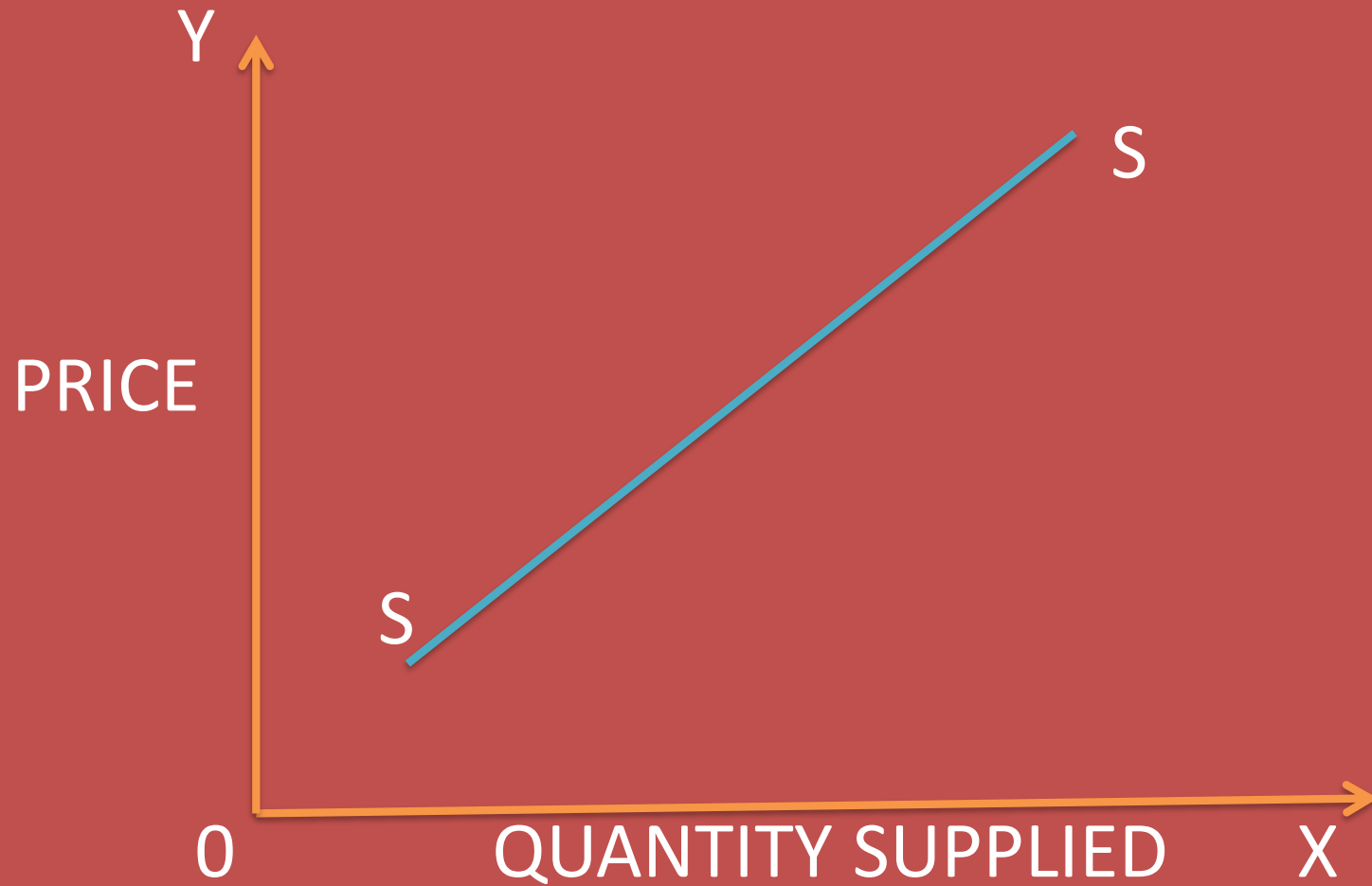
**FIRM A IS WILLING TO SUPPLY 200 UNITS OF ELECTRIC FANS
AT THE RATE OF RS. 600 PER FAN THIS YEAR**



INDIVIDUAL SUPPLY SCHEDULE

PRICE	QUANTITY SUPPLIED
1	10
2	20
3	30
4	40
5	50

INDIVIDUAL SUPPLY CURVE



Price and quantity supplied are directly related. More are supplied at a higher price and less at a lower price. So, the supply curve(SS) slopes upward from left to right.

- **MARKET SUPPLY:** It refers to the total quantity of a commodity which all the firms in a market together are willing to sell at a given price and in a given period of time.

PRICE OF UMBRELLA IS RS. 200 PER UNIT

WE WILL SELL 100



WE WILL SELL 150



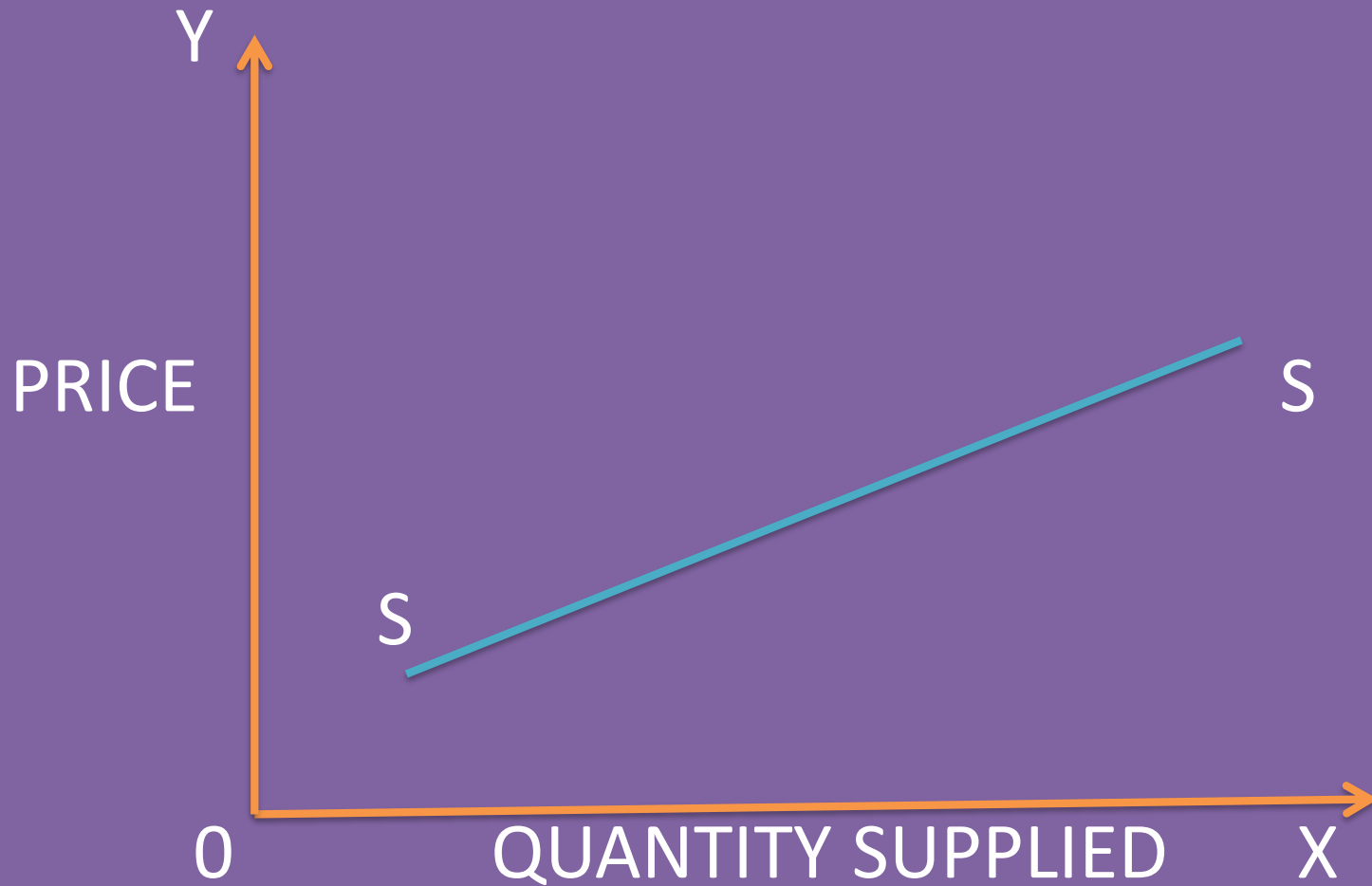
WE WILL SELL 200



MARKET DEMAND = 100 + 150 + 200 = 450 UNITS

Market Supply Schedule				
Price	Quantity by A	Quantity by B	Quantity by C	Market Supply
1	10	5	15	30
2	20	15	25	60
3	30	20	35	85
4	40	25	40	105
5	50	30	50	130

MARKET SUPPLY CURVE



Market supply curve is flatter than the individual supply curve because market supply is the horizontal summation of the quantities supplied by individual firms.

LAW OF SUPPLY

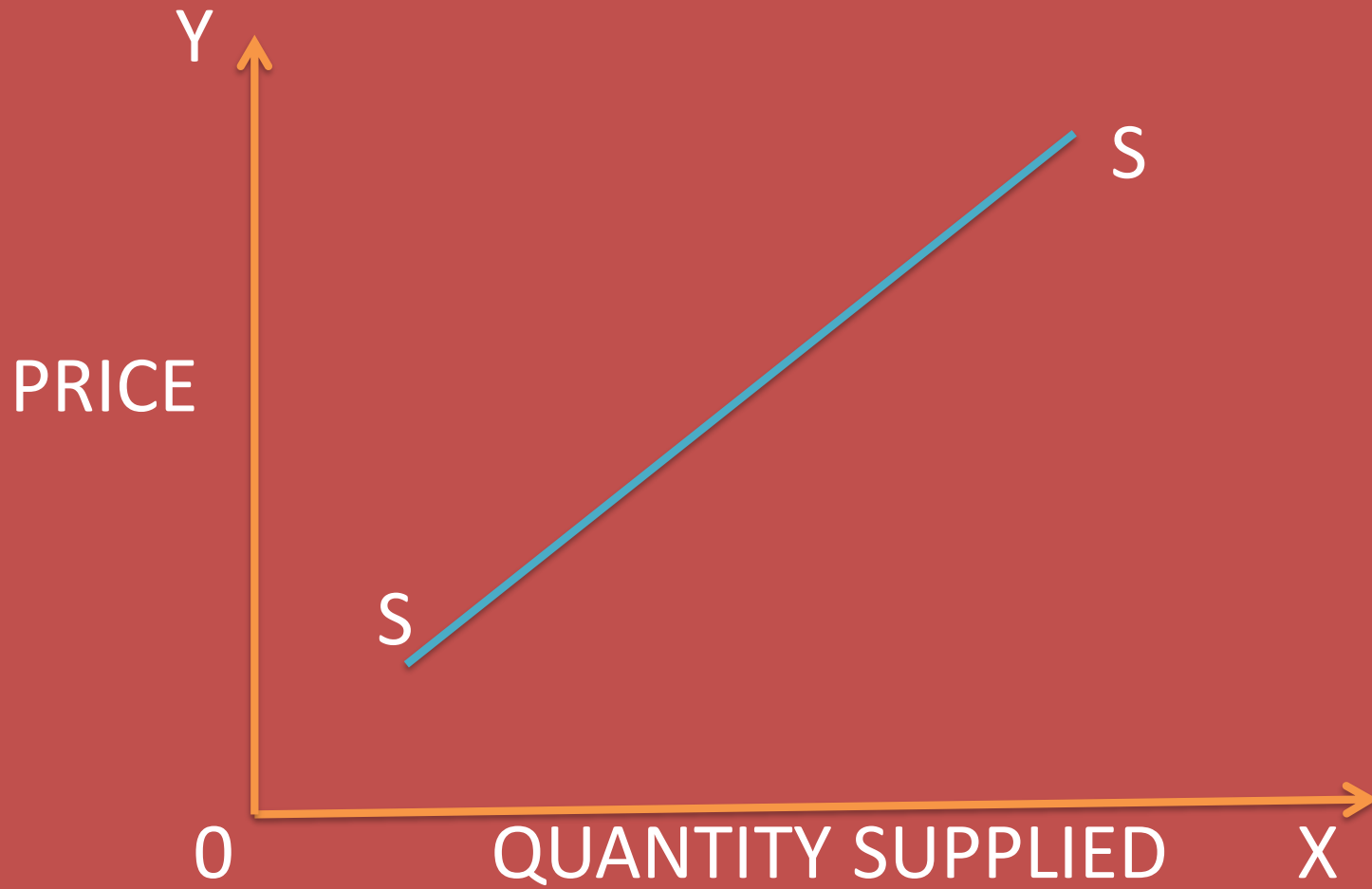
According to the Law of Supply, other things remaining the same, the supply of a good expands when price rises and contracts when price falls



SUPPLY SCHEDULE

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SUPPLY CURVE



Assumptions of the law of Supply

- Prices of related goods remain constant.
- Prices of inputs do not change.
- Technology remains constant.
- There is no change in the goal of the firm.
- There is no change in Government Policy.

Reasons behind the Law of Supply

- Aim of the producer is to earn profit. When prices rise, his profit increases. He will be motivated to increase supply.
- Rise in price encourages new firms to enter market. Supply will expand.
- Fall in price may force some firms to leave the industry. Supply will fall.
- Price rise encourages firms to release goods from their stock.

Exceptions to the Law of Supply

- If the seller expects fall in price in future, he will supply more even if the price does not change.
- Supply of agricultural goods depends on natural factors like climate and soil fertility. Even a rise in price may not lead to rise in supply of agricultural goods.
- In poor countries supply cannot be increased with increase in price due to shortage of resources.


SUPPLY FUNCTION

It refers to the functional relationship between supply of a good and the factors that affect supply.

$$Q_s = f(P_x, P_R, T, P, G \dots\dots)$$

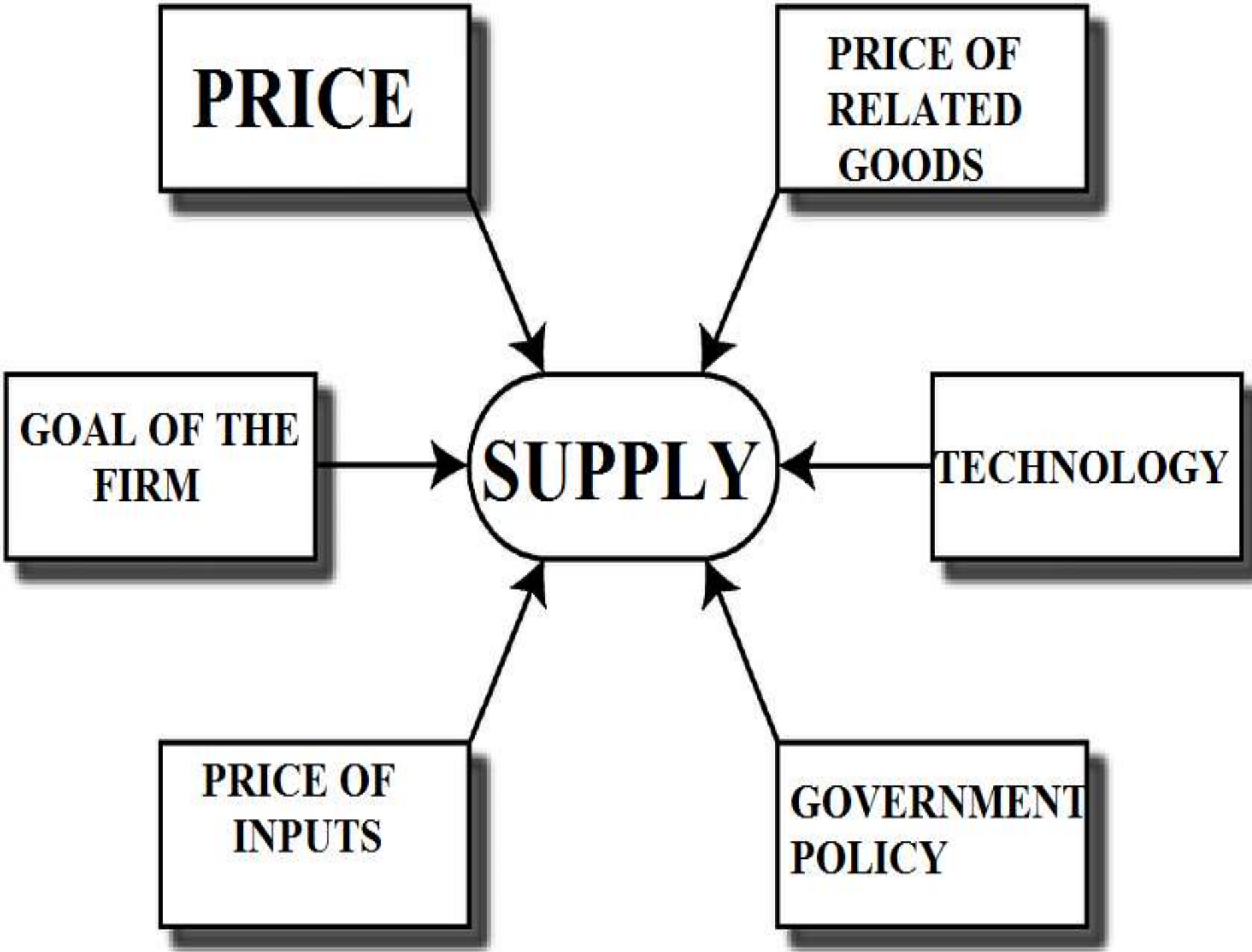
Q_s  Quantity Supplied

f  functional relationship

The letters within the bracket  Factors that affect Supply like Price of the good, price of related goods etc.

FACTORS THAT AFFECT SUPPLY





a. **Price of the good (P_x):**

Rise in Price



Increase in Profits



Increase in Production



Increase in Supply

a. **Price of the good (P_x):**

Fall in Price



Decrease in Profits



Fall in Production



Fall in Supply

b. Price of Related Goods

Substitute Goods

Rise in the price of one good leads to fall in the supply of the other good.

For Ex: If the price of tea rises supply of coffee will fall. Producers will shift resources from the production of coffee to the production of tea.

- Complementary goods.

Rise in the price of one good will lead to rise in the supply of the other good.

For Example: Increase in the price of car will lead to increase in the supply of petrol.

c. Technology

Development of technology



Fall in cost of production.



Increase in Profit



Increase in production

d. Goal of the firm

- Sometimes, the firm may have some goals other than profit.
- It may aim at becoming market leader.
- It may aim at promoting public welfare.
- In such cases, the firm may increase supply even if there is no change in price.

e. Price of Input

Increase in the price of inputs



Increase in cost of production



Fall in Profit



Fall in Production

f. GOVERNMENT POLICY

Decrease in Taxes



Decrease in cost of Production



Increase in Profit



Increase in Production



Increase in Supply

-

f. GOVERNMENT POLICY

Increase in Taxes



Increase in cost of Production



Decrease in Profit



Fall in Production



Fall in Supply

-

Cut in subsidies



Increase in cost of Production



Decrease in Profit



Fall in Production

Increase in subsidies



Decrease in cost of Production



Increase in Profit



Increase in Production

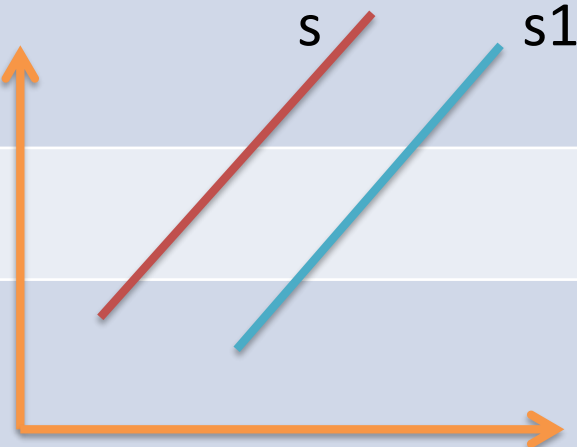
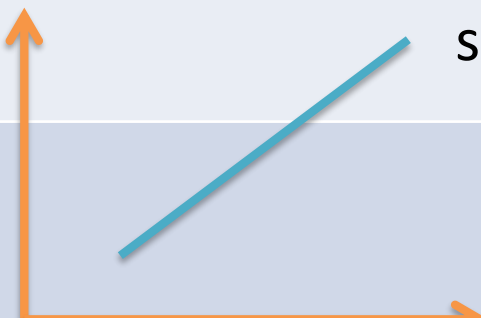


Increase in Supply

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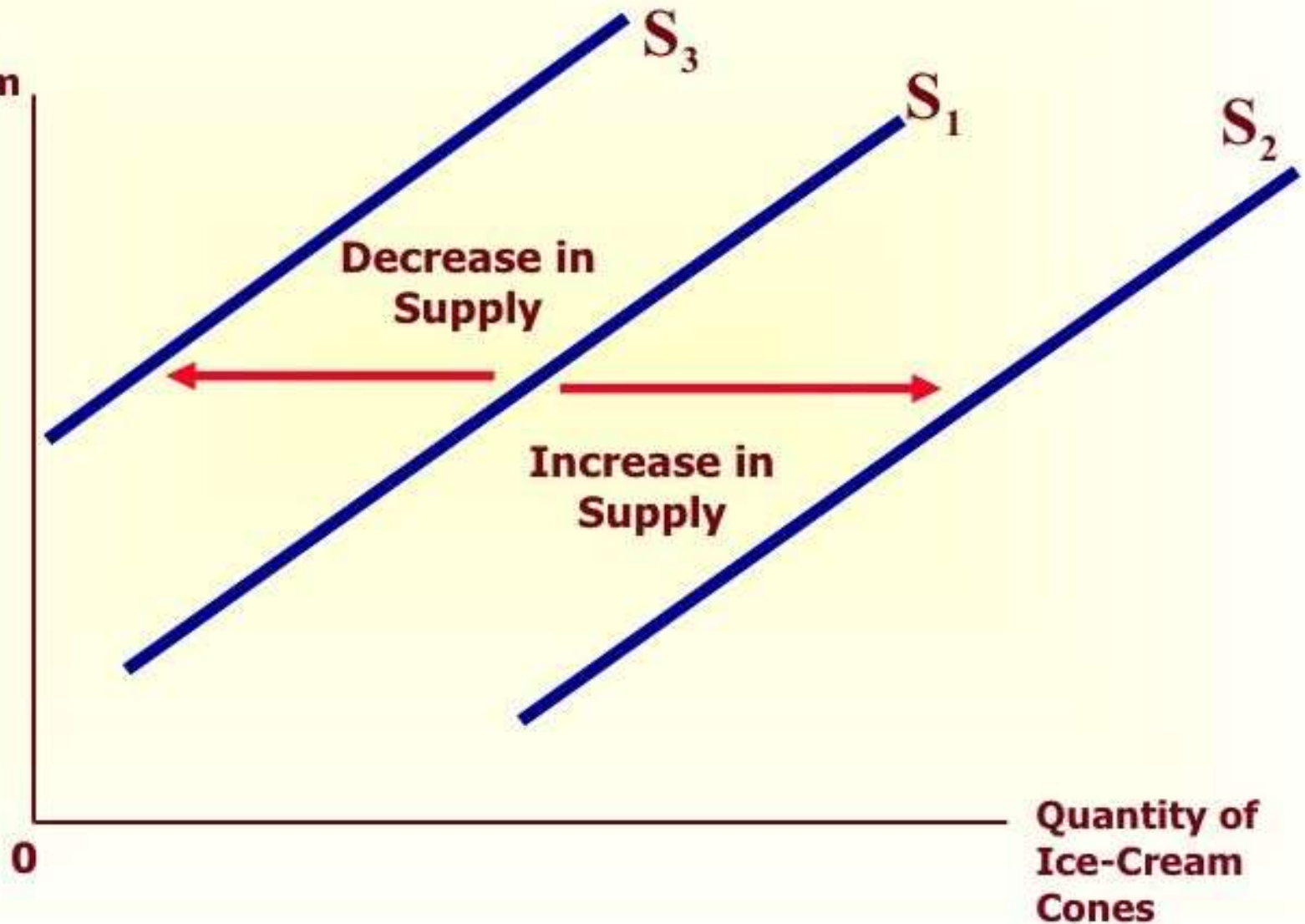
Natural Calamities

- Natural calamities like floods, droughts and extreme climate may lead to fall in the supply of goods.

CHANGE IN SUPPLY	CHANGE IN QUANTITY SUPPLIED
Increase or decrease in supply due to factors other than price	Expansion or contraction in supply to due to change in price
Rise in supply is called increase in supply fall in supply is called decrease in supply	Rise in supply is called extension or expansion in supply and fall in supply is called contraction in supply
The supply curve shifts to the right when supply increases and to the left when supply decreases	There is only one supply curve. Expansion in supply leads to rightward movement and contraction in supply leads to leftward movement along the same supply curve.
	

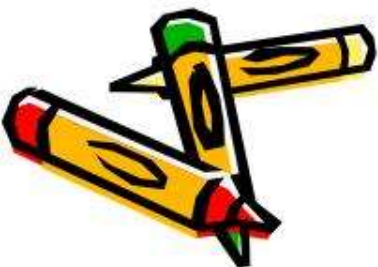
Change in Supply

Price of
Ice-Cream
Cone



Elasticity of supply

Price elasticity of supply measures the change in supply of commodity due to change in its price



DEGREES OF ELASTICITY OF SUPPLY



1. PERFECTLY ELASTIC SUPPLY

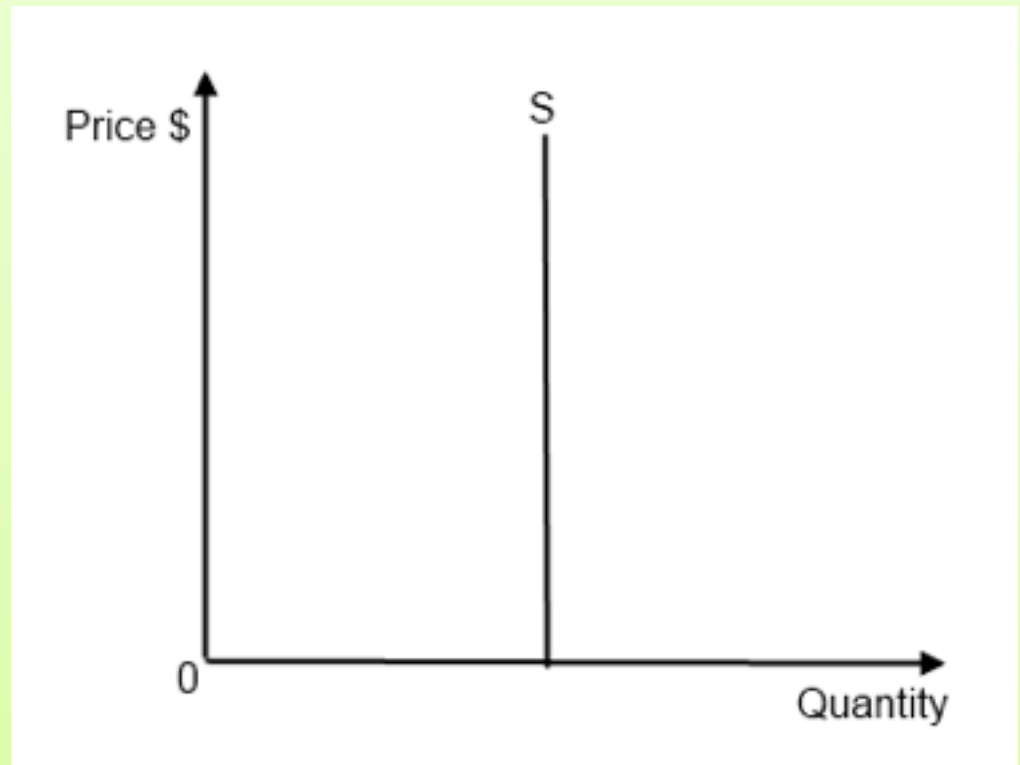
- A small change in price leads to infinite change in quantity supplied. The Supply curve is a horizontal line parallel to X axis.
- $ES = \infty$



2. PERFECTLY INELASTIC SUPPLY

- When change in price of a good does not cause any change in quantity supplied, it is called Perfectly Inelastic Supply. Supply curve is a straight line parallel to Y axis.

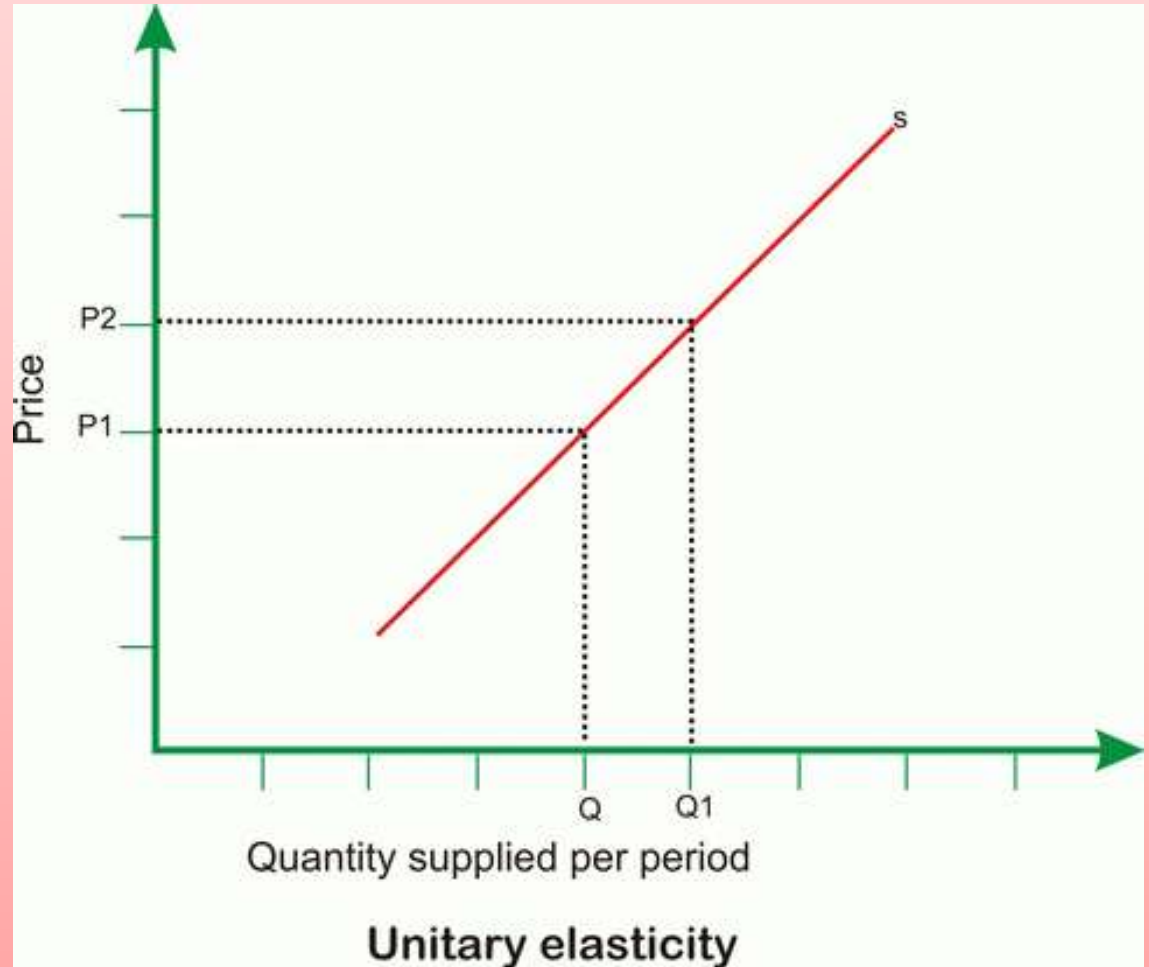
$$E_s = 0$$



3. UNITARY ELASTIC SUPPLY

Percentage change in Price and Percentage Change in quantity supplied are equal.

$$E_s = 1$$

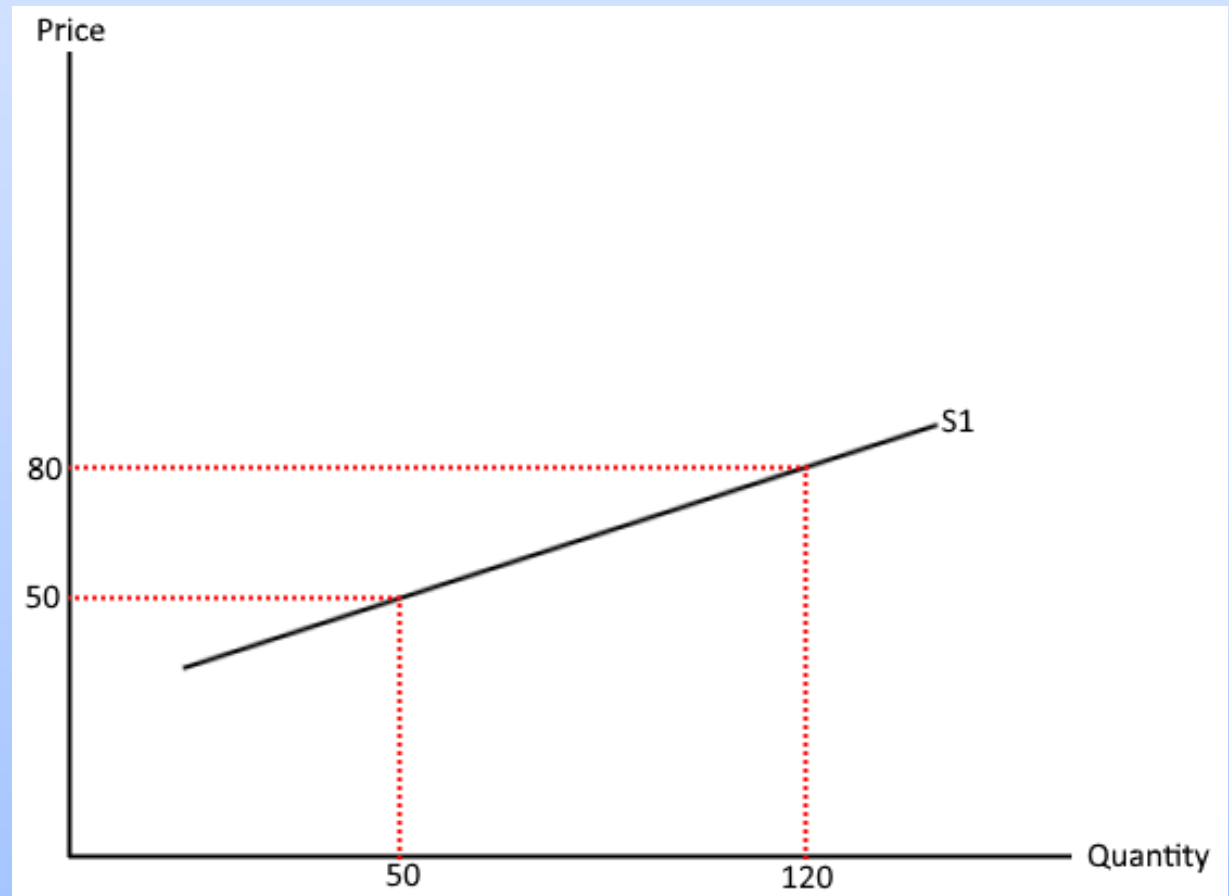


ELASTIC SUPPLY

(RELATIVELY ELASTIC SUPPLY OR GREATER THAN UNIT ELASTIC)

Percentage change in quantity supplied of a good is greater than percentage change in its price.

$$ES > 1$$

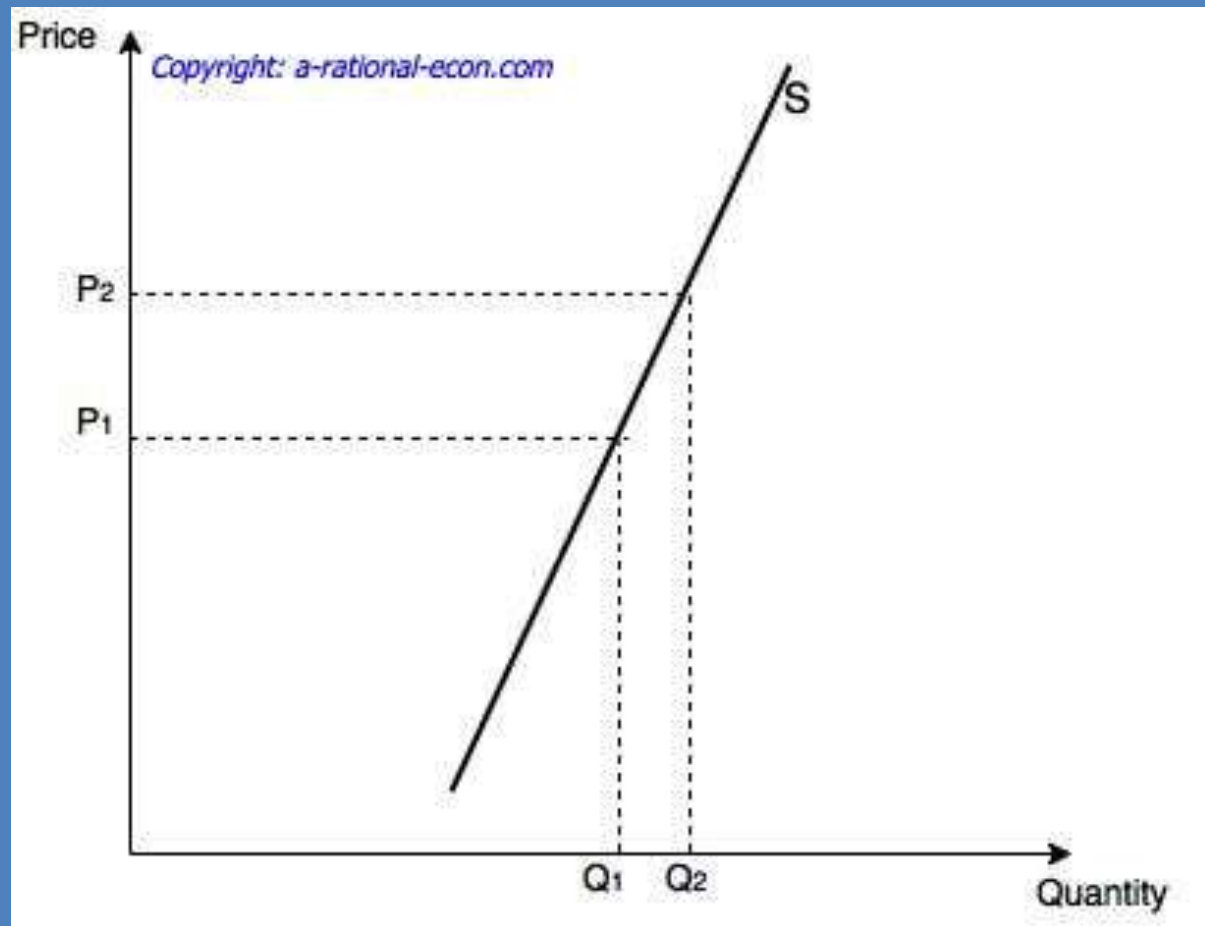


INELASTIC SUPPLY

(RELATIVELY INELASTIC SUPPLY OR LESS THAN UNIT ELASTIC SUPPLY)

Percentage change in quantity supplied a commodity is less than percentage change in its price.

$$E_s < 1$$



FACTORS AFFECTING ELASTICITY OF SUPPLY

- Nature of Inputs: If commonly available inputs are used supply will be elastic. If inputs are not easily available supply will be inelastic.
- Natural Constraints: If production depends on natural factors supply will be less elastic. For example, agricultural production is less elastic.
- Nature of the commodity: Perishable goods are less elastic. Durable goods are more elastic.
- Time factor: Longer the time period, greater will be the elasticity of supply.
- Technology: If production requires complex and expensive technology, elasticity will be less.

NUMERICALS ON ELASTICITY OF SUPPLY

- Price Elasticity of Supply(E_s)

$$= \frac{\text{Percentage Change in Quantity Supplied}}{\text{Percentage Change in Price}}$$

OR

$$= \frac{\Delta Q}{\Delta P} \times \frac{P}{Q}$$

ΔQ  Change in quantity supplied

ΔP  Change in Price

P  Initial Price

Q  Initial Quantity

1. The supply of a good expands by 20% when its price rises by 40%. Calculate Price elasticity of supply.

$$E_s = \frac{\text{Percentage Change in Quantity Supplied}}{\text{Percentage Change in Price}}$$

% Change in quantity supplied = 20

% Change in Price = 40%

$$E_s = \frac{20}{40} = 0.5$$

Inelastic Demand

2. Price of a good falls from Rs. 15 to Rs.10 and the supply decreases from 100 units to 50 units. Calculate *ES*.

$$Q = 100 \quad P = 15$$

$$Q_1 = 50 \quad P_1 = 10$$

$$\Delta Q = 50 \quad \Delta P = 5$$

$$E_s = \frac{\Delta Q}{\Delta P} \times \frac{P}{Q}$$

$$E_s = \frac{50}{5} \times \frac{15}{100} = \mathbf{1.5}$$

Elastic Demand

THANK YOU