

SUPPLY

Supply → Amounts of Goods and services that the producers are willing & able to offer to the market at various prices, during a given period time.

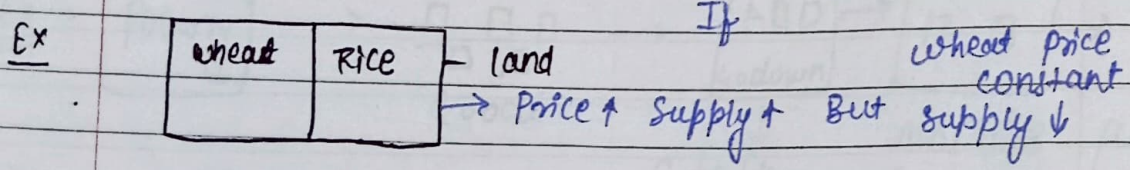
- # ① Supply ≠ Sale [what is offered may not get sold]
- # ② Supply is a flow concept [period of time]

DETERMINANTS OF SUPPLY

① Price of the good (Ceteris paribus)

Price ↑ Supply ↑ } Direct Relation b/w Price & Supply
 Price ↓ Supply ↓ }
 • more price means more profit

② PRICE OF Related Goods
 Multiple Goods Produce



③ Factors of Production

land — labour — capital — Entrepreneur

Cost ↓ Profit ↑ Supply ↑

→ Lower cost — More Profit — Encourage existing firm to expand production
 → New firm, enter the market

• Rise in price of Particular Factor of Production will cause increase in cost of those goods, that use a great deal of that factor

④ State of technology

use New technology, innovation

↑ Production efficiency

↓ Production cost

Production ↑ Profit ↑ supply

Availability of spare capacity & the

⑤ Government Policy

• Taxes like excise duty, sales tax & import duty

↳ Cost of production ↑

Profit ↓ Supply ↓

subsidies → Reduce the cost of production — C ↓ PT Supply

⑥ Nature of competition & size

competitive (More seller)
↓
More supply

Monopoly (one seller)

↓

limited supply

⑦ ~~Expect~~ Expectations → (about future price)

Expect fall in the ^{future} price → ↑ supply Today

increase in Anticipated future price → ↓ supply Today

⑧ Number of sellers

more number of seller → More supply

less number of seller → Less supply

⑨ OTHER factors (a) Govt. Industrial & Foreign Policy

(b) In Infrastructural facilities (c) Goal of the firm etc.

supply ↑
Price

← Revenue Maximum → price

Profit maximum
Price ↑ supply ↑

Law of SUPPLY (Ceteris Paribus)

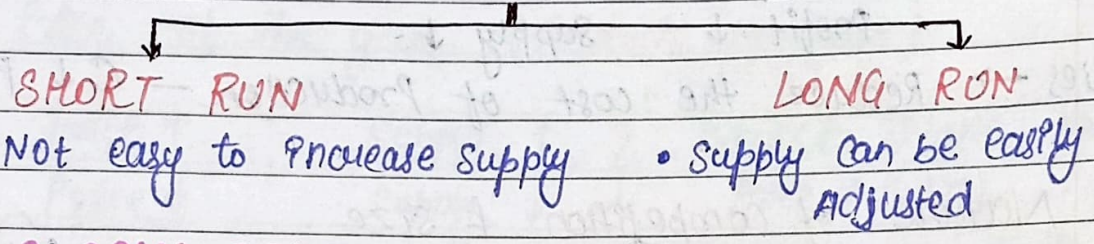
- willingness to supply depend on the
- (a) cost of production of add. unit of goods
 - (b) price at which goods can be sold.

→ The quantity of a good produced & offered for sale will increase as the price of the goods rises & decreases as price falls

Price ↑ Supply ↑
 Price ↓ Supply ↓

} Direct Relation

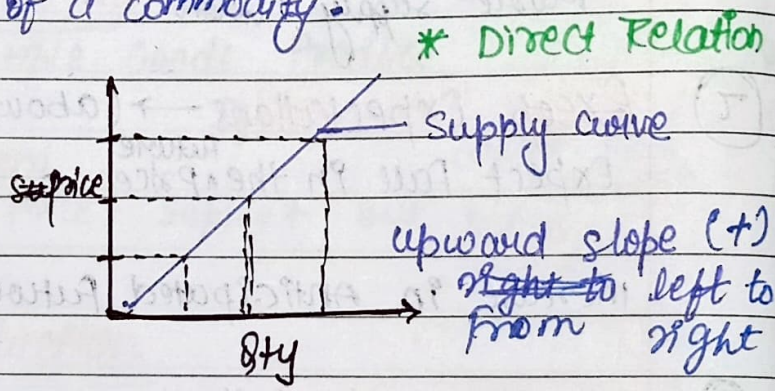
BEHAVIOUR OF SUPPLY ALSO AFFECTED BY TIME PERIOD UNDER CONSIDERATION



SUPPLY SCHEDULE

↳ Presentation of the law of supply. It shows the different prices of a commodity.

EX	Price	Quantity Supply
	100	50
	120	20
	150	50



* The supply shows

- (a) highest quantity willing supplied by supplier at each price
- (b) minimum price which will induce supplier to offer various quantity for sale.

• Market Supply → ^{Aggregate} Sum of supplies made by all Individual firms

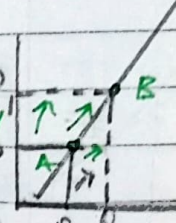
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Page No.:

Amount of commodity supplied per time period at various prices by All the producers, in the market

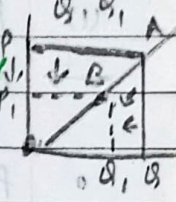
MOVEMENT ON THE SUPPLY CURVE

- due to change in own prices
- Change in quantity supplied

Price increases → Expansion of supply
L to R upward movement



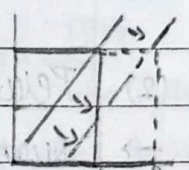
Price decreases → contraction of supply
R to L downward movement



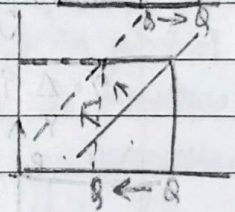
SHIFT IN SUPPLY CURVE

Change in supply due to other factor, other than own price

Profit ↑
(favour) Increase in supply → Rightward shift



Decrease in supply → Leftward shift



ELASTICITY OF SUPPLY

→ Responsiveness of the quantity supply of a good to a change in its price

$$E_s = \frac{\% \text{ Change in Quantity supplied}}{\% \text{ Change in price}}$$

$$\frac{\Delta Q}{\Delta P} \times \frac{P_0}{Q_0}$$

* E_s will always be Positive

* POINT ELASTICITY

→ Elasticity is to be measured at a given price or between two prices where Δ in price is very small

$$E_s = \frac{dq}{dP} \times \frac{P_0}{Q_0}$$

* ARC - Elasticity → Elasticity of supply b/w Price Elasticity over a "range" or "ARC" of the supply Curve

$$E_s = \frac{\Delta Q}{\Delta P} \times \frac{P_0 + P_1}{\frac{Q_0 + Q_1}{2}} = \frac{\Delta Q}{\Delta P} \times \frac{P_0 + P_1}{Q_0 + Q_1}$$

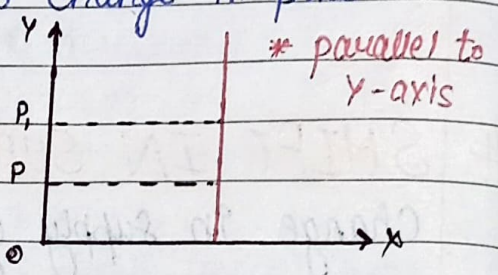
TYPES OF SUPPLY ELASTICITY

Slope = $\frac{\Delta Y}{\Delta X}$

(1) Perfectly inelastic supply

→ No change in supply due to change in price

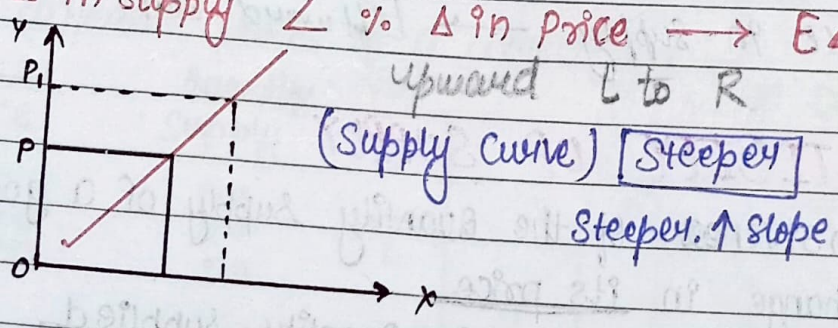
- Perishable Goods $E_s = 0$
- Artistic work



(2) Relatively less-elastic supply (inelastic supply)

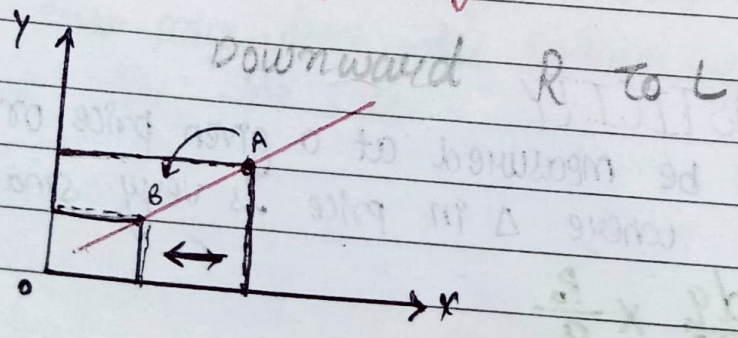
→ Quantity is not very responsive to price

% Δ in supply < % Δ in price → $E < 1$



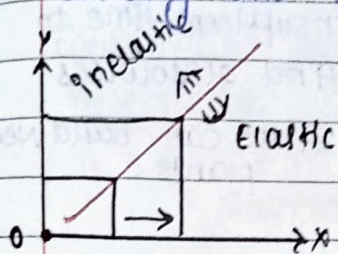
(3) Relatively Greater elastic supply (Elastic supply)

% Δ in Quantity supply > % Δ in price → $E_s > 1$

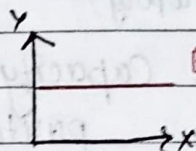


(4) unit Elastic $\% \Delta \text{ Quantity Supply} = \% \Delta \text{ in price}$

Dividing line b/w the elastic & inelastic ranges:



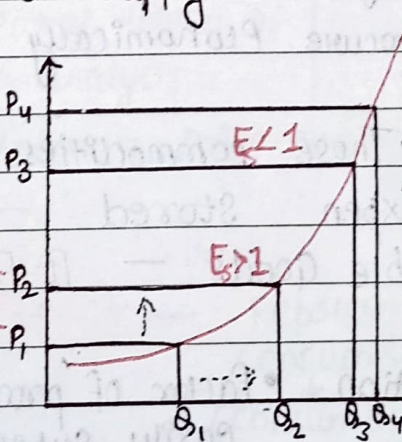
(5) Perfectly Elastic curve $E_s = \infty$
Infinitesimally change in price results in infinite large quantity supply



* Supply curve gets flatter, Elasticity rises.

In some cases elasticity of supply is not constant, But varies over supply curve

In this region firm, have idle capacity & when price rises, Qty supply is increased



once the firm reaches the full capacity, further increase in ~~output~~ produce is possible only by extra investment.

Substantially

To induce firm, increase output, Price must rise substantially

DETERMINANTS OF ELASTICITY OF SUPPLY

- E_s depends on the flexibility sellers have, to change the supply. The more easily sellers can change the quantity, ^{greater the} elasticity.

(1) Production of cost & prices

- If increase in production causes substantial increase in cost \rightarrow price elasticity will be less / inelastic

• If cost remain constant as output increase - elastic

• Product that have more complex process & takes longer time to produce - less elastic / inelastic

(2) Time Period

- Shorter time period to adjust supply - less elastic Insufficient time to find alternatives
- longer time period - more elastic Firms can build new plants

(3) Degree of competition

- More product & high degree of competition - more elastic
- few barriers entry into the market (Monopoly) - inelastic

(4) Spare Capacity → spare production elastic
partial capacity available
full — inelastic

(5) Availability of Resources

- Raw material & inputs are easily & cheaply available - elastic
- Difficult to procure economically - inelastic

(6) Storage → • Those commodities which can be easily & in expen stored - elastic

• Highly perishable Goods - Perfectly Inelastic

(7) Factor substitution • factor of production can easily substitute - Elastic

• If production process involves resources which are highly specialised - Inelastic

• Labour employed is scarce, required to be highly skilled, longer training period - Inelastic

(8) Mobility of Resources → capital & labour are occupationally mobile - Elastic

(19) Expectation about future prices.

expectation of substantial rise in price in future

It will make the seller respond less to the current rise in price - Inelastic.

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Page No: _____

EQUILIBRIUM PRICE

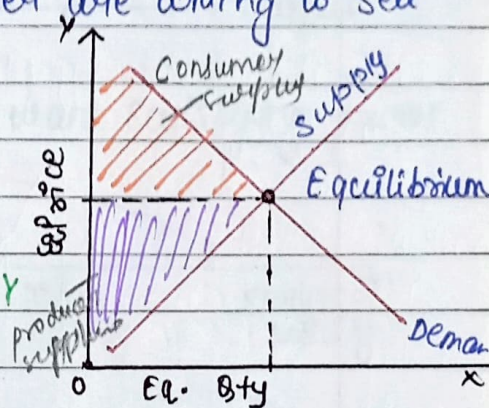
Equilibrium price in the market is determined by the interaction between demand & supply

- Market Equilibrium
- Market clearing Price
- Unique Point

Ex →	Price	Dty Demand	Dty supply	Impact on price
↓	1000	6	31	Downward ↓
↓	800	12	25	Downward ↓
	500	19	19	Equilibrium
	350	25	12	upward ↑

* Equilibrium (at Price) Amount that buyers are willing to buy (equal to) = Amount seller are willing to sell

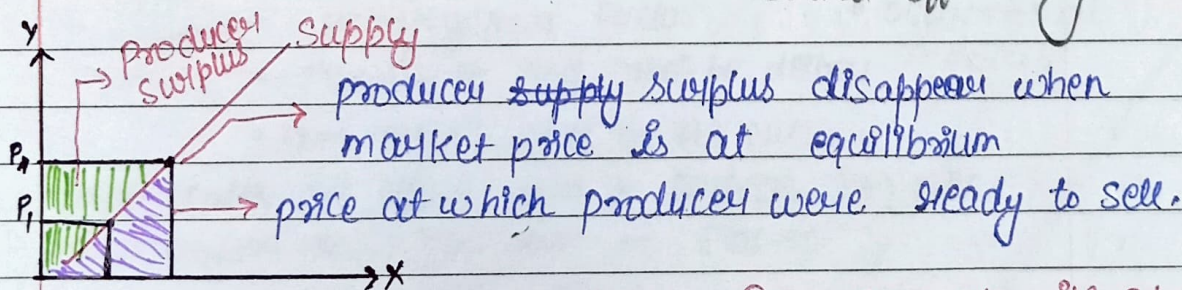
The determination of market price is the central theme of Macro-economic analysis



• Micro economic Theory = Price Theory

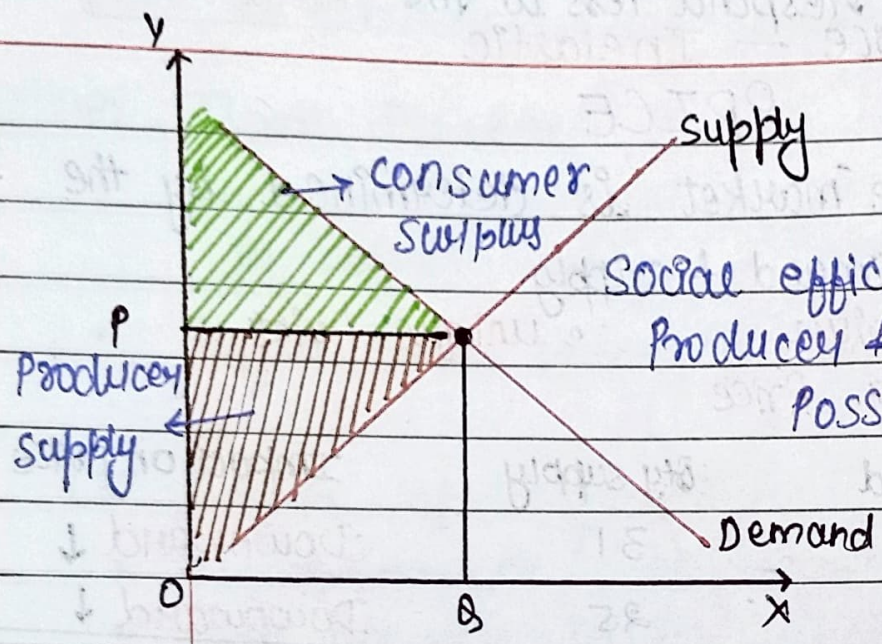
* Social Efficiency — Represent, net gain to the society
 consumer + Producer
 (consumer surplus) (Producer surplus)

* PRODUCER SURPLUS



Benefit derived by producer from sale of units above & beyond their cost by producing that unit.

→ Price they receive > Min. Price at which they were ready to supply



Social efficiency is achieved with both producer & consumer enjoying maximum possible surplus