Demand and Supply

- **Market:** A market is a group of buyers and sellers of a particular good or service.

— Product
— Buyers
— Sellers
— Voluntary exchange

- **Market price:** Market price is the price prevailing in a competitive market.

- **Imperfect market** → same products are sold at different prices
(Petrol, electrical products, cars)

Competitive manket chanactenistics :

1) Many buyens and sellens
2) not contnolled by any one penson.
3) In which a nannow nange of pnices ane established.
4) finms ane the pnice takens
5) Pnoducts ane homogenous
6) Free entny and exit by finms.

Pnice : Pnice is the numben of dollans that must be given up in exchange fon an item.

Relative pnice : The $\boxed{\text{natio}}$ of one pnice to anothen.

Demand:

The word 'Demand' refers to the willingness and ability of buyers to purchase different quantities of a good at different prices during a specific time period.

— relationship between the $\boxed{\text{price}}$ and $\boxed{\text{quantity}}$ demanded of the good.

Demand Curve:

A demand curve is a curve that shows the relationship between the quantity demanded of a good and its price, when all other influences on consumer's planned purchases remain the same (ceteris paribus) [willingness to pay curve]

Demand schedule:

a table showing various levels of demand at different prices.

Law of demand:

P

When the $\boxed{\text{price}}$ of a product increases the quantity demanded will decrease, and when the price of a product decreases, $\boxed{\text{the quantity demanded}}$ will increase, ceteris paribus (i.e. holding all other things as constant)

Qd

- expresses functional relationship between price and commodity demanded. (negative relationship)

$\boxed{P\uparrow \; Q_d\downarrow}$ $\boxed{P\downarrow \; Q_d\uparrow}$

- The smaller the quantity available, the higher is the price that someone is willing to pay for another unit.

- Marginal benefit is measured by willingness to pay

Market demand:

The demand by all the consumers of a given good or service.

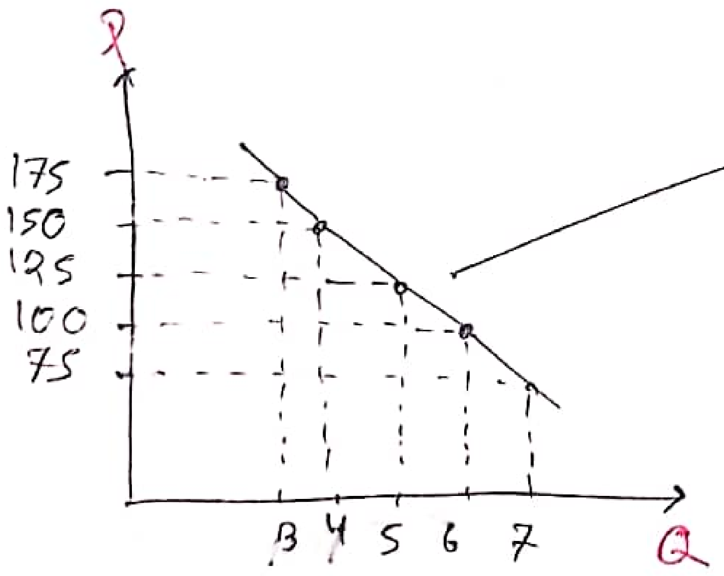
Market demand curve

is derived by horizontally summing all the individual demand curves for a good or service.

Demand curve

Price	Quantity
$175	3
150	4
125	5
100	6
75	7

→ Demand schedule



→ Demand curve

as the price falls, so quantity demand increases

Why are price and quantity demanded negatively related? (2 reasons)

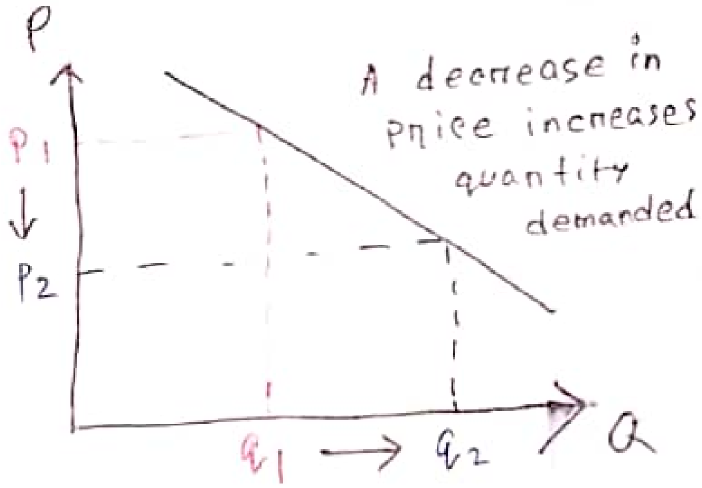
— 1) **Substitution Effect:** When the price of a good rises, consumers are more willing to substitute other relatively less expensive goods for this expensive good and quantity demanded falls.

2) **Income Effect:** When the price of a good rises, a consumer's purchasing power or real income falls, causing them to decrease consumption.

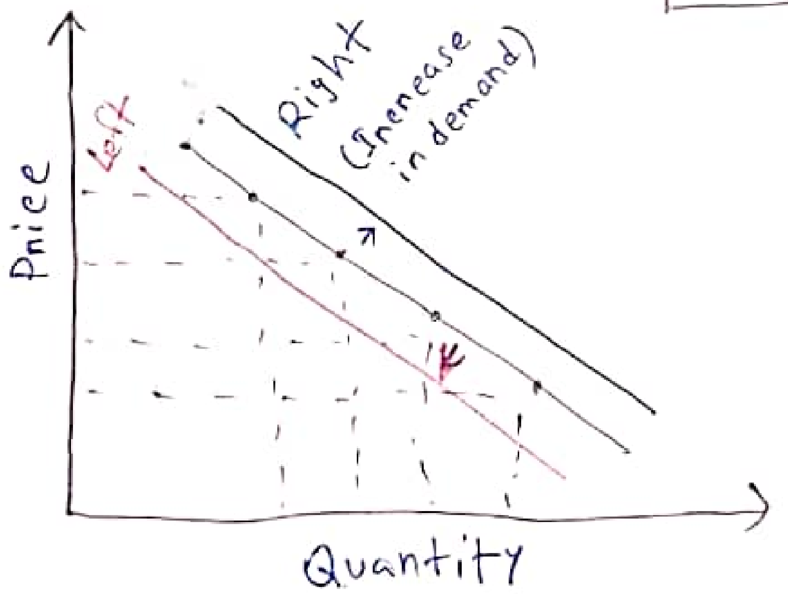
Movement v/s Shift in Demand :

A change in price causes a movement along the demand curve.

- If price falls, there is an increase in quantity demanded (right / upward movement)
- If price rises, there is a decrease in quantity demanded (left / downward movement)



(Movement)



(Shift)

Determinants of demand (shift in demand curve)

Total 6 variables affect demand.

1) Price
2) Prices of related goods (substitute commodities and complementary commodities)
3) consumer income.
4) Tastes (preferences)
5) Population and demographics
6) Expected future prices / anticipated prices

* Substitute: Goods or services that can be used in place of other goods / services.
* Complements: Goods / services that are consumed together.

(2)

(3)

* Consumer income:

Normal good: A good for which the demand increases as income rises and decreases as income falls. (whose demand is a positive function of income)

- When consumers have enough money to purchase normal goods, they will choose these items over inferior goods.

Inferior good: A good for which the demand increases as income falls and decreases as income rises. (demand is a negative function of income)

- typically the lowest quality products available, purchased only out of economic necessity

(4) Tastes (pnefenences)

A bnoad category that nefens to the many subjective elements that can influence a consumen's plans to buy a good/senvice.

— influenced by adventising and manketing.

(5) Population and demognaphics

Population: As population incneases the demand fon most goods/senvices will incnease.

Demognaphics: changes in the chanactenistics of the population (age and genden) will influence demand fon vanious goods/senvices.

(6) Expected futune pnices: consumens choose when to buy goods/senvices based on thein expectations negarding futune pnices nelative to pnesent pnices.

* If consumens expect pnices to incnease in the futune, they have an incentive to incnease punchases now, and vice vensa.

* What can cause an increase in demand?

- a LARGE change in preferences
- increase in real income
- price of a complement good decreases
- price of a substitute good increases.
- number of buyers increases
- expectation that price will increase in future.

Definition of SUPPLY :

[The word 'supply' refers to the willingness and ability of sellers to produce and offer to sell different quantities of a good at different prices during a specific time period.]

Supply

Supply for a commodity is the amount of it that a producer will sell or will be ready to sell in the market at various given prices in a given period of time.

- producer's attitude and reaction towards that commodity.
- relationship between the price and quantity supplied of the good.

Supply curve:

A supply curve shows the relationship between the quantity supplied of a good and its price, when all other influences on producers' planned sales remain the same (ceteris paribus)

Law of supply:

Holding everything else constant, when the price of a product increases the quantity supplied will increase, and when the price of product decreases, the quantity supplied will decrease.

P↓ Qs↓ P↑ Qs↑

- refers to the positive relation between price and quantity supplied of that commodity.

- **Market supply:** The supply by all the firms of a given good / service.

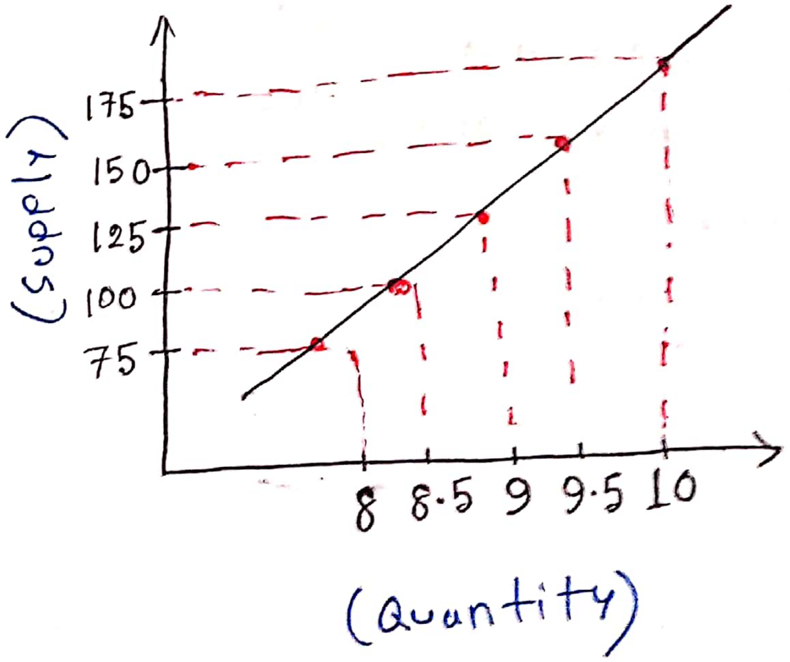
- **Market supply curve:** derived by horizontally summing all the individual supply curves for a good / service.

Supply Schedule and Curve

Supply schedule

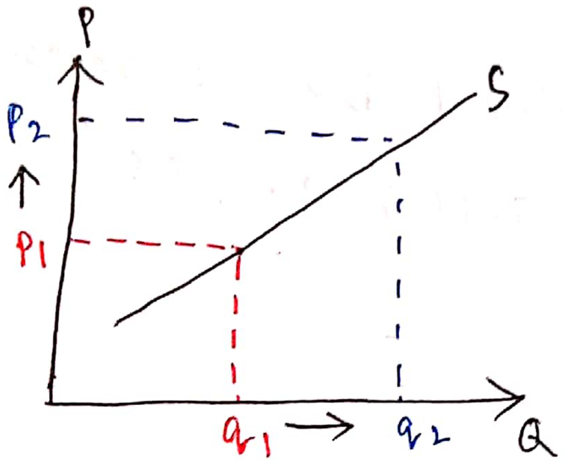
Price	Quantity
$175	10
150	9.5
125	9
100	8.5
75	8

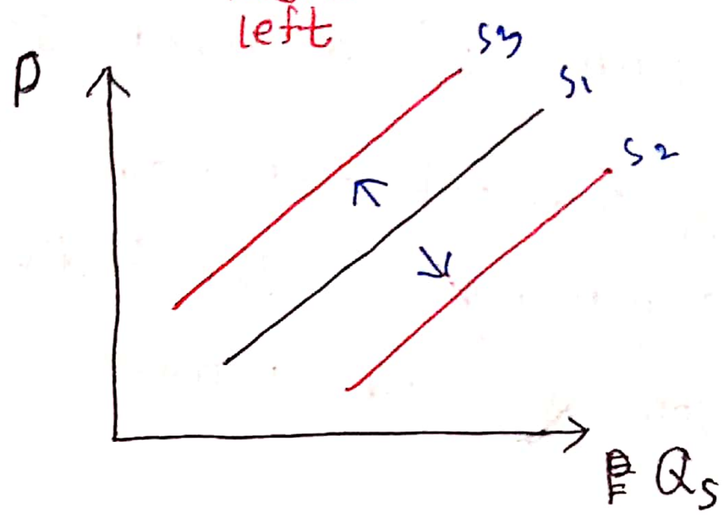
Supply Curve



Movement in the supply curve:

- Price rises → increase in quantity supplied (upward movement) — ~~left~~ right
- Price falls → decrease (downward movement) ~~right~~ left





A rise in price increases quantity supplied and causes movement along the curve.

(Movement)

(shifts in the supply curve)

Determinants of shift in supply curve:

6 variables that affect supply are —

1) Price
2) Prices of input
3) Technological change
4) Prices of substitutes in production
5) Expected future prices
6) Number of firms in the market

(2) Prices of input:

(An input is anything used in the production of a good / service)

— cost of input **increase** — cost of production increase — supply **decrease**

(3) Technological change:

A change in the ability of a firm to produce a ~~given~~ level of output with a given quantity of inputs.

- $\boxed{\text{positive}}$ technological change → produce more output with the same amount of inputs → $\boxed{\text{increase}}$ supply

(4) Prices of substitutes in production:

Alternative products a firm can produce with the same resources are substitutes in production.

- price of substitute increase — $\boxed{\text{supply}}$ of initial goods decreases.

(5) Expected future prices:

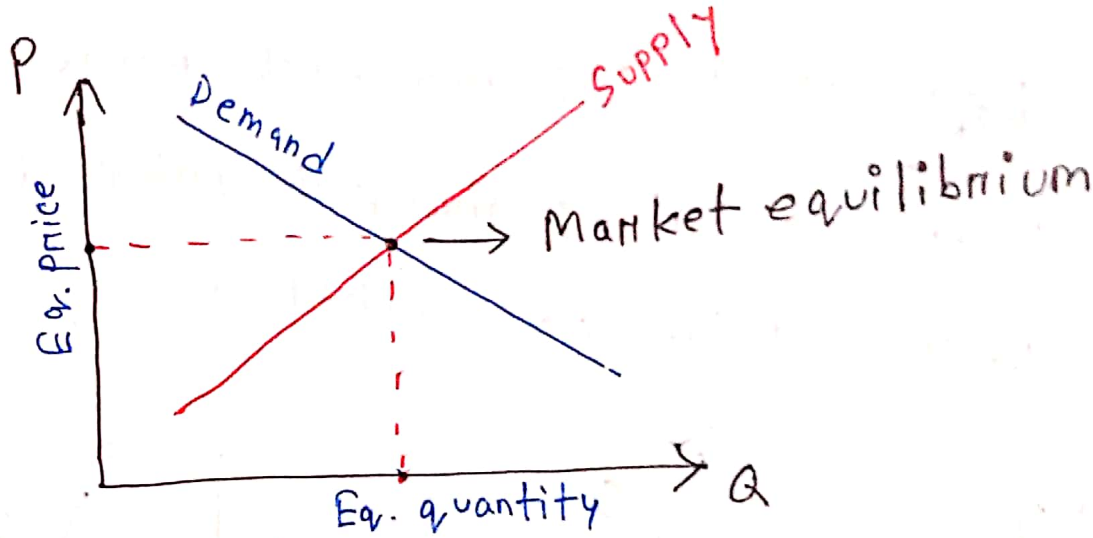
expected price increase — $\boxed{\text{decrease supply}}$ now.

(6) Number of firms in the market

new firms — $\boxed{\text{increase}}$ supply

Market Equilibrium :

Market equilibrium price is the price at which quantity demanded equals quantity supplied.

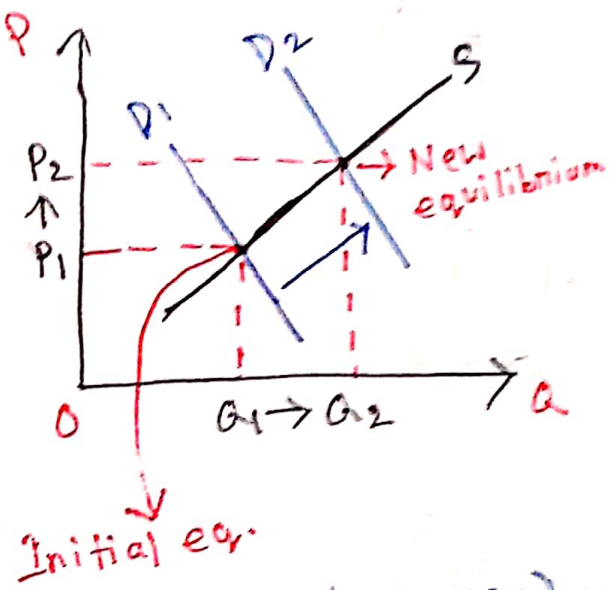


- Above equilibrium :
  - $Q_s > Q_d$ (surplus)
  - price ~~increase~~ decrease
- Below equilibrium :
  - $Q_s < Q_d$ (shortage)
  - price ~~decrease~~ increase

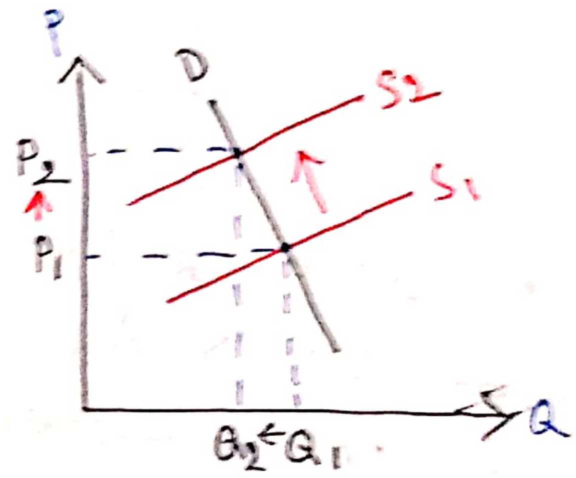
changes in equilibrium:

There are 4 types of changes

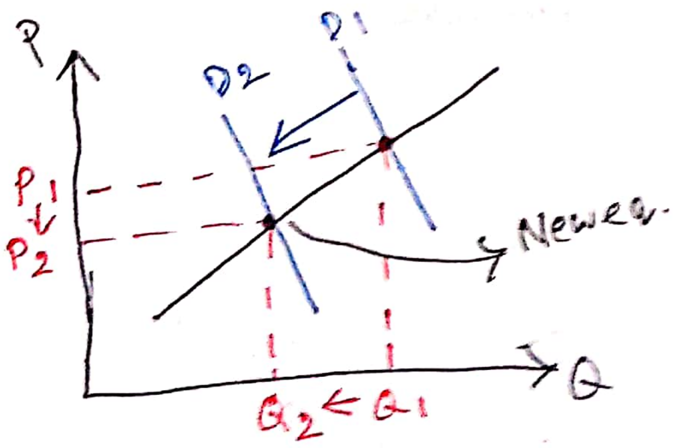
1) Increase in D: market price <u>increase</u>
2) Decrease in D: market price <u>decrease</u>
3) Increase in S: market price <u>decrease</u>
4) Decrease in S: market price <u>increase</u>



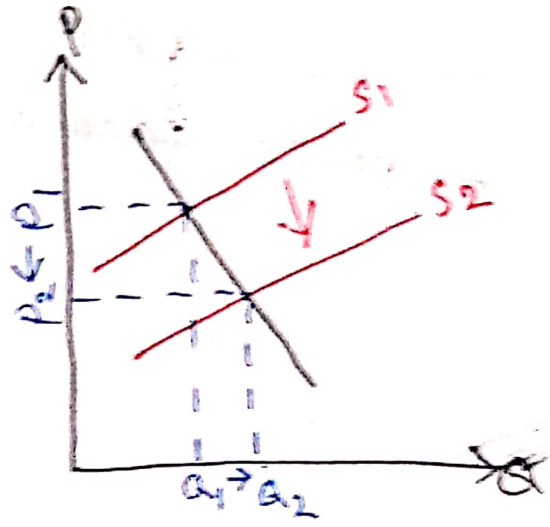
(Demand increase)



(supply decrease)



(Demand decrease)



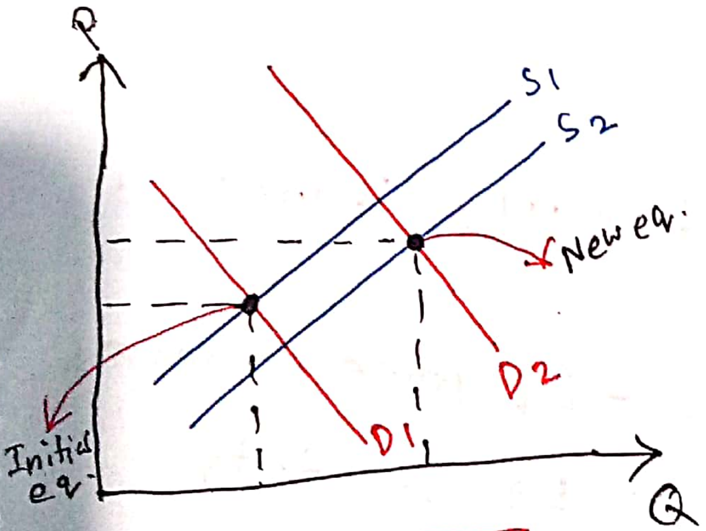
(supply increase)

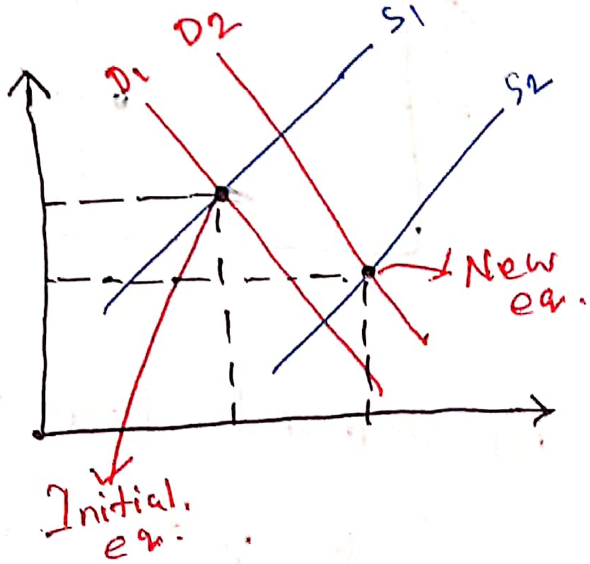
Markets are interrelated:

— changes in market conditions for one product can have significant effects on the demand or supply in other markets.

What happens if both demand and supply shift at the same time?

Both D and S increase:





Demand shifts more than supply
— equilibrium price increases

Supply shifts more than demand
— eq. price decreases

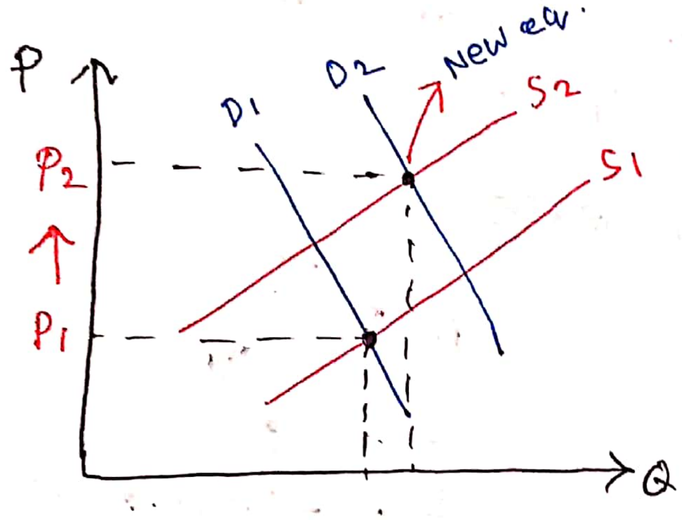
— change quantity
— effect on price is indeterminate

(True in both cases)

Both D and S decrease:

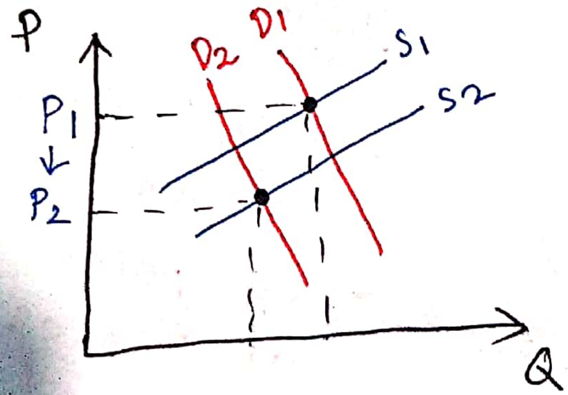
1) Demand shifts more than supply:
   - eq. price decreases
2) Supply shifts more than demand:
   - eq. price increases

Demand increases and supply decreases:



- Eq. price increases
- Eq. quantity can't be determined

Demand decreases and supply increases



- Eq. price decreases
- Eq. quantity can't be determined.