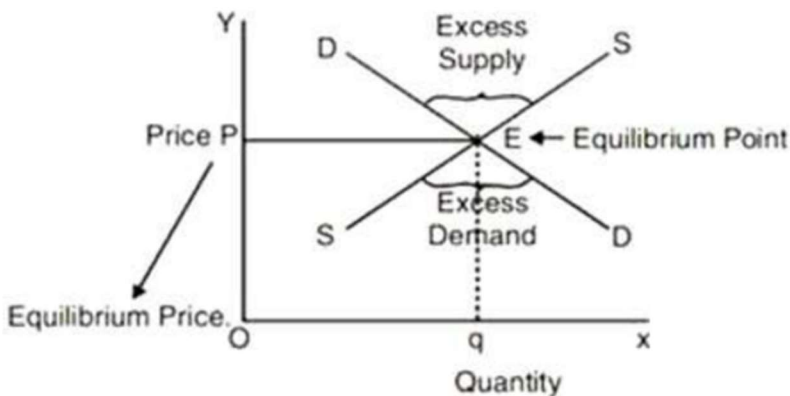


## Chapter- 5: MICRO ECONOMICS

# Market Equilibrium

1. **Market** is a mechanism or arrangement through which the buyers and sellers of a commodity or service come into contact with one another and complete the act of sale and purchase of the commodity or service on mutually agreed prices.
2. **Market equilibrium** is a state in which market demand is equal to market supply. There is no excess demand and excess supply in the market.
3. **Equilibrium Price & Quantity:** The price at which the quantity demanded and supplied are equal is known as equilibrium price. The quantity demanded and supplied at an equilibrium price is known as equilibrium quantity.

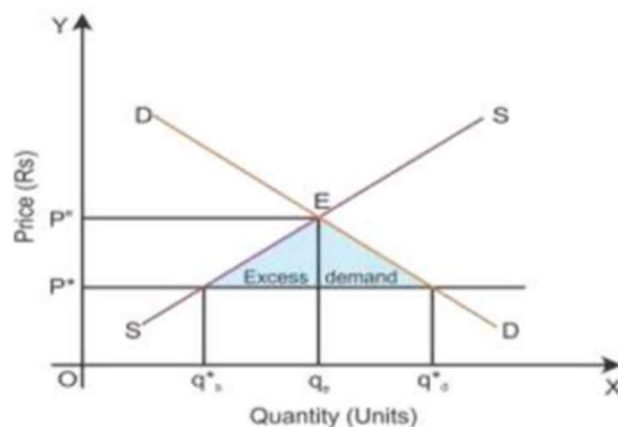


4. **Excess Demand** If at any price demand is greater than market supply. It is said excess demand in the market.

$$Y^d > Y^s$$

Here,  $Y^s$  = Market supply

$Y^d$  = Market Demand

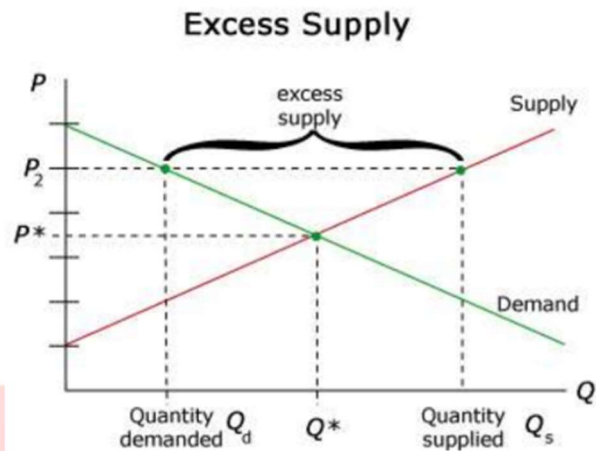


5. **Excess Supply** If at any price market supply is greater than market demand. It is said excess supply in the market.

$$Y^s > Y^d$$

Here,  $Y^s$  = Market supply

$Y^d$  = Market Demand.



6. **Non-viable Industry:** The industry for which demand curve and supply do not intersect each other at any positive quantity is called non-viable industry.

7. **Viable Industry** In case of viable industry supply and demand Curve must intersect at same point.

8. **Price Ceiling** Price ceiling is the process of determining the price of some necessary goods at a lower level so that they can be made available for the poor. Government of India imposes a price ceiling on the basic necessity goods which should be made available for the poor. For example, goods such as rice, wheat, sugar kerosene and pulses.

Imposition of the price ceiling has the following consequences: (a) Imposition of price ceiling leads an excessive increase in the demand. At lower price, people are likely to increase their demand for such commodities. (b) Poor consumers do not get access to unlimited goods. The quota is fixed for these goods. Normally, the goods provided under the price ceiling system are of inferior quality.

9. **Price Floor** It means the minimum price fixed by the government for a commodity in the market. It seems paradoxical

(i) Each firm employs labour up to the point where the marginal revenue product of labour equals the wage rate.

(ii) With supply curve remaining unchanged when demand curve shifts rightward (leftward). The equilibrium quantity increases (decreases) and equilibrium price increases with fixed number of firms.

(iii) With demand curve remaining unchanged when supply curve shifts rightward (leftward), the equilibrium quantity increases (decreases) and equilibrium price decreases (increases) with fixed number of firm.

#### 10. Effect of a simultaneous change in Demand and Supply on Equilibrium Price

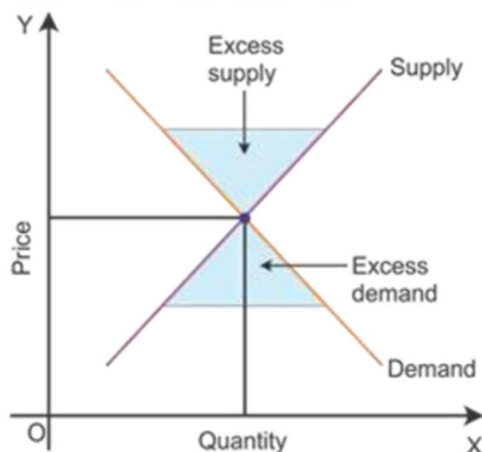
(i) When demand increases more than supply, equilibrium price will increase.

(ii) When demand and supply increase equally, equilibrium price remain constant.

(iii) When supply increase more than demand, equilibrium price falls.

**Price Determination in Perfect Market Competition:** - In a perfectly competitive market, price is determined by market demand and market supply. Market demand is the summation of all individual demands in the market. Market supply is also the summation of all individual supply schedules in the market. The intersection of market demand and market supply determines the price in a perfectly competitive market.

Graphical representation of the determination of price in a perfectly competitive market

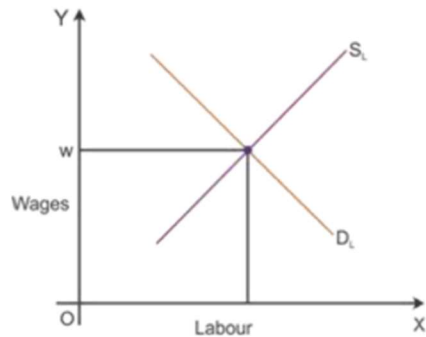


The above figure indicates that the price is determined at the point where the market demand curve intersects the market supply curve. Any point above the equilibrium price creates excess supply, and the price below the equilibrium level creates excess demand, as indicated in the figure.

#### Wage Determination in Perfect Competitive Labor Market –

Equilibrium of demand and supply of labor determines the wage rate. Marginal product of labor plays an important role in determining the demand for labor.

Graphical representation of the wage determination in a perfectly competitive labor market.



The graph indicates the wage determination in a perfectly competitive market. Intersection of demand and supply determines the wage rate.

**Marginal Revenue Product of Labour:** - The marginal revenue product of labour (MRPL) is the change in revenue that results from employing an additional unit of labour, holding all other inputs constant. The marginal revenue product of a worker is equal to the product of the marginal product of labour (MPL) and the marginal revenue (MR) of output, given by  $MR \times MPL = MRPL$ . This can be used to determine the optimal number of workers to employ at an exogenously determined market wage rate. Theory states that a profit maximizing firm will hire workers up to the point where the marginal revenue product is equal to the wage rate, because it is not efficient for a firm to pay its workers more than it will earn in revenues from their labour.

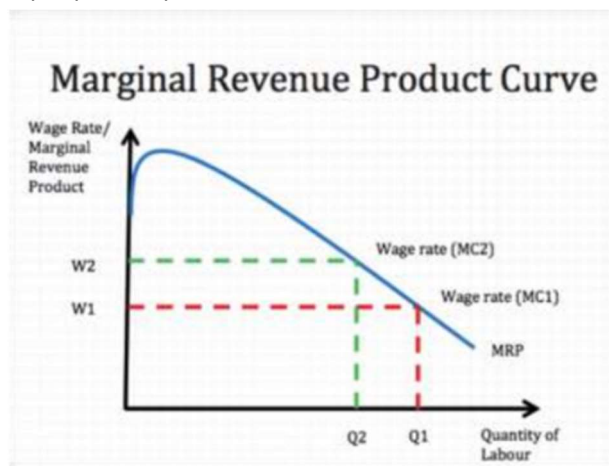
Let  $TR$  = Total Revenue;  $L$  = Labour;  $Q$  = Quantity.

$$MRPL = \Delta TR / \Delta L$$

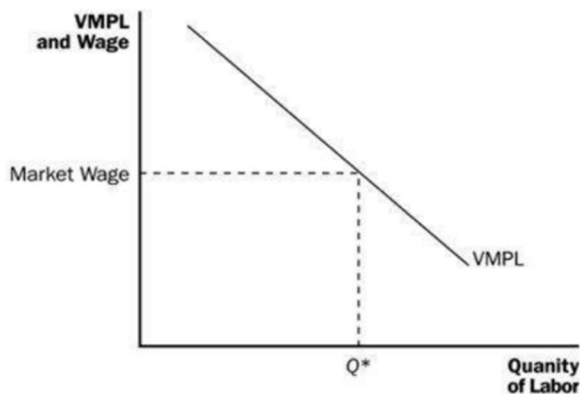
$$MR = \Delta TR / \Delta Q$$

$$MPL = \Delta Q / \Delta L$$

$$MR \times MPL = (\Delta TR / \Delta Q) \times (\Delta Q / \Delta L) = \Delta TR / \Delta L$$



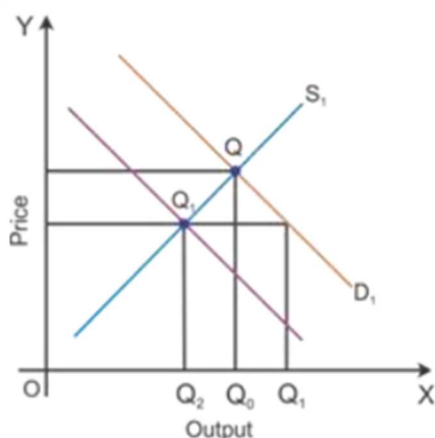
Value of marginal product of labour- There are three potential meanings of the "value of marginal product of labour." One is the "magnitude" of marginal product—the increase in physical output associated with hiring another employee. The more traditional definition is the price of output times that magnitude (in the case of competitive output markets), which represents the monetary value of another worker, to be compared to the marginal monetary cost of that worker. In the third case, the firm has some degree of market power, so it is marginal revenue that multiplies the physical marginal product. In all cases, one is looking for marginal benefits to compare to marginal costs.



**Effect of Income (Rise or Decline) on Equilibrium of Price and Quantity-**

(a) An increase in consumer income leads to a rise in the equilibrium price assuming that the number of firms is constant in the market. Consumers are likely to increase their demand considering a rise in their level of income. A rise in demand causes an increase in the equilibrium price.

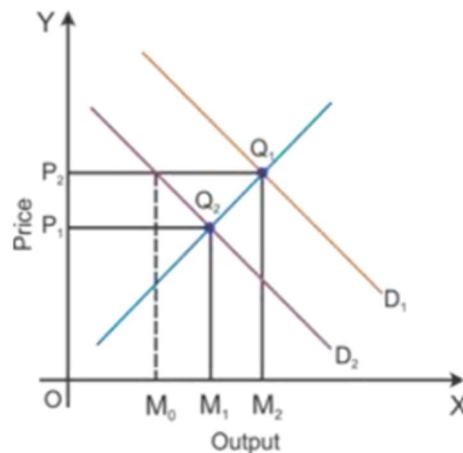
Graphical representation of the effects of an increase in the level of income on the equilibrium price and quantity



The figure indicates that the equilibrium price is likely to increase due to a rise in the consumer's income level.

(b) A decrease in consumer's income leads to a decline in the equilibrium price assuming that the number of firms is constant in the market. Consumers are likely to decrease their demand considering a decline in their level of income. A decline in the demand causes a fall in the equilibrium price due to the availability of excess supply in the market.

Graphical representation of the effects of a decrease in the level of income on the equilibrium price and quantity



The figure indicates that the equilibrium price is likely to decrease due to a decrease in the consumer's income level.

ODM  
EDUCATIONAL GROUP  
*Changing your Tomorrow*