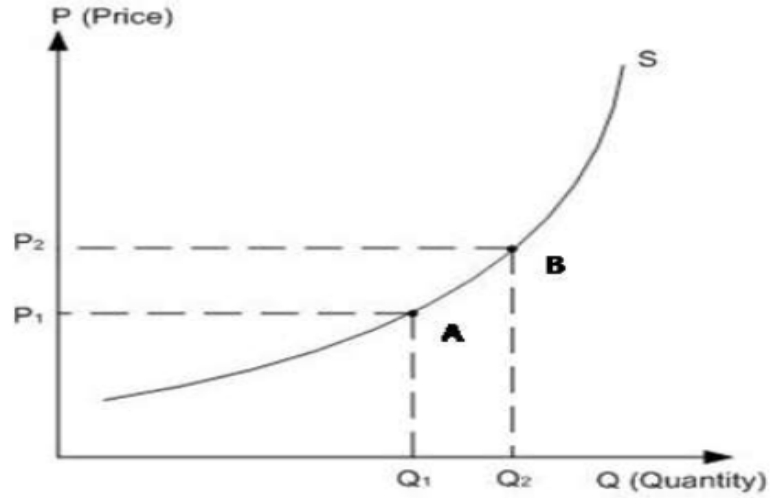
Increase and decrease in supply, contraction and extension of supply, factors affecting supply.

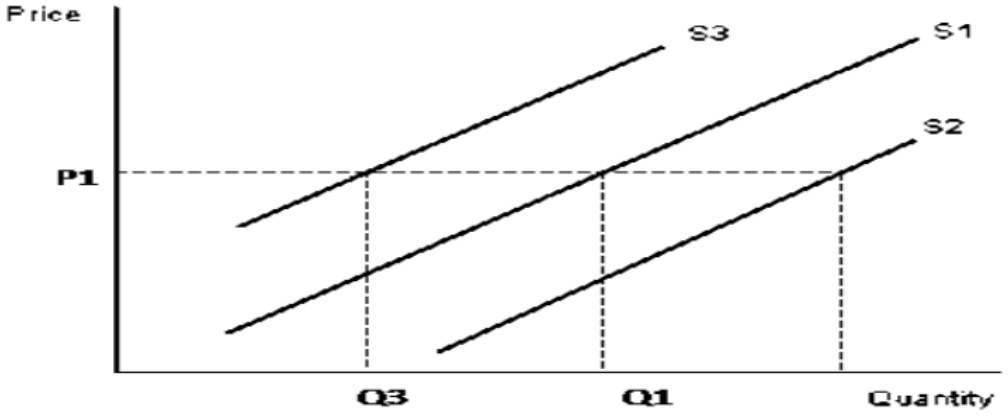
Movement along the Supply curve (Extension and contraction)

Movement along the supply curve happens due to change in the price of the good and resulting change in the quantity supplied at that price. For instance, an increase in the price of the good from P1 to P2 in the figure below results in an increase of quantity supplied of the good from Q1 to Q2. This movement from point A to point B on the supply curve S due to change in price of the good all other factors of supply remaining unchanged is called movement along the supply curve.



Shifts in the Supply curve

Shift in the supply curve is also sometimes referred as a change in supply. This happens due to changes in factors of supply other than that of price of the good For example, if the price of a factor or of a related good increases the supply curve shifts. Similarly changes in technology and government tools like tax and subsidy tends to shift supply curve.



The supply curve can shift to the right or left as shown in the figure. A shift towards the right i.e. from S1 to S2 curve denotes an increase in supply of the good. Similarly a shift in the supply curve from S1 to S3 denotes a decrease in supply of the good.
As seen in the figure above a rightward shift in the supply curve from S1 to S2 increases supply from Q1 to Q2 while the price of the good remains same at P1. Similarly a leftward shift from S1 to S3 decreases supply from Q1 to Q3 whilst the price remaining unchanged at P1

Factors affecting changes in supply:

The factors causing Shifts in supply curve are

i.Changes in Factor Prices: If the prices of the various factors of production fall down, it will result in lowering the cost of production and so an increase in the supply on varying prices.

i. Changes in Technique: If an improvement in technique takes place in a particular industry, it will help in reducing its cost of production. This will result in greater production and so an increase in the supply of the commodity. The supply curve will shifts to the right of the original supply curve.
ii. Improvement in the Means of Transport: The supply of the commodity may also increase due to improvement in the means of communication and transport. If the means of transport are cheap and fast, then supply of the commodity can be increased at a short notice at lower price.
iii. Climatic Changes in case of Agricultural Products: The supply of agricultural products is directly affected by the weather conditions and the use of the better methods of production. If rain is timely, plentiful, well-distributed and improved methods of cultivation are employed then other things remaining the same, there will be bumper crop. It would then be possible to increase the supply of the agricultural products.
iv. Political Changes: The increase or decrease in supply may also take place due to political disturbances in a country. If country wages wars against another country or some kind of political disturbances take place just as we had at the time of partition, then the channels of production are disorganized. It results in the decrease of certain goods the supply curve shifts to the left of originals curve.
v. Taxation Policy: If a government levies heavy taxes on the import of particular commodities, then the supply of these commodities is reduced at each price. The supply curve shifts to the left, conversely, if the taxes on output in the country are low and government encourages the import of foreign commodities, then the supply can be increased easily. The supply curve shifts to the right of original supply curve.
vi. Goals of firms. If the firms expect higher profits in the future, they will take the risk and produce goods on large scale resulting in larger supply of the commodities. The supply curve shifts to the right.

Elasticity of supply, kinds of elasticity of supply – perfectly elastic, perfectly inelastic, relatively elastic, relatively inelastic and unitary elastic - factors affecting elasticity of supply.

Elasticity of Supply:

Elasticity of Supply: it is defined as the responsiveness or sensitiveness of supply to the changes in the price of the good.

The extent to which quantity supplied of a commodity changes with the given change in the price refers to elasticity of supply.

There are five degrees of elasticity of supply. They are discussed in brief as under:

(i) Perfectly elastic supply. Supply curve in graph 7.1 (a) is perfectly elastic (horizontal). The firm will supply any amount of output at Rs.4 per unit. If the price falls below Rs.4 (say Rs.3.5) per unit, then the quantity supplied falls to zero. The price is too low to sustain any producer in the market. Elasticity of supply is infinite.

(ii) Perfect inelastic supply. A perfectly inelastic supply represents a situation in which sellers sell a fixed quantity of good for sale. The price increase from Rs.4 to Rs. 8 has not fed to increase in quantity supplied. The quantity supplied is totally unresponsiveness to changes in price. The supply curve is vertical = Es = 0.

(iii) Unit elastic supply. In case of unit elasticity of supply, the percentage change in price brings about the same percentage change in quantity supplied of a good. In figure 7.1(c) doubling the price of a good from Rs.4 to Rs.8 per unit doubles the quantity supplied .from 40 to 80 units Es = 1.

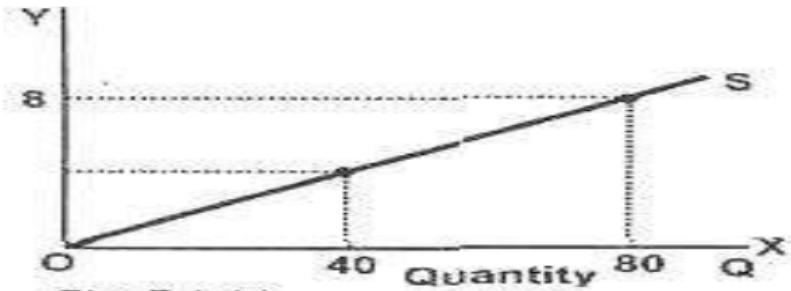


Fig. 7.1 (c)

(iv) Elastic supply. When the percentage increase in the price of a good brings about, a larger percentage increase in the supply of a good, the supply of a good said to elastic Fig. 7.1(d) shows a 25% increase in the price of a good (Rs.4 to Rs.5), causes a 100% increases in the supply of goods (from 40 to 80 units per day) (Es >1). The supply curve has a flatter slope.

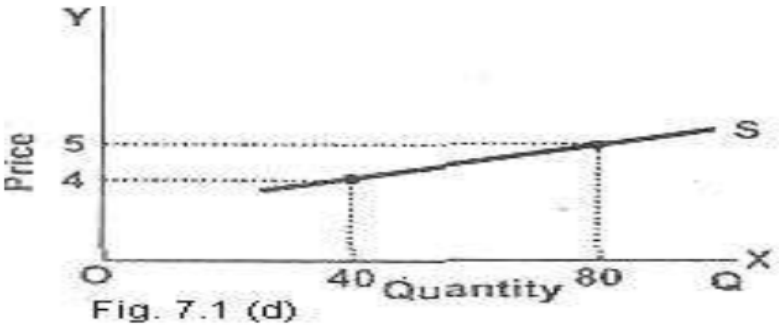


Fig. 7.1 (d)

(v) Inelastic supply. When the percentage change in price of a good causes a smaller percentage in quantity supplied, the supply is said to be inelastic (Es < 1). In fig. there is an 100% increase in the price of good (from Rs.4 to Rs.8) but it
brings a 25% increase in-the quantity supplied (40 to 50 units per day). The supply curve is steeply sloped.

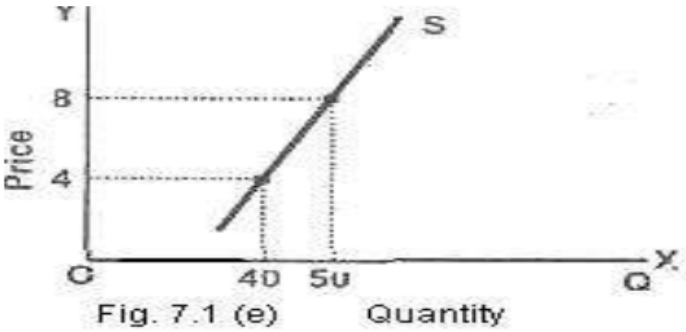


Fig. 7.1 (e)

Note: The category of elasticity of supply at any point on the supply curve can be judged by drawing a tangent to the point of the curve under consideration. If the tangent meets the vertical axis, then supply is elastic at that point and its value will be between one and infinity.. In case it touches, the horizontal axis, then the supply of the good is inelastic at that point and its value will lie between zero and one. Any straight line supply curve through the origin will have unitary elastic.

Determinants of Price Elasticity of Supply:

The main factors which determine the degree of price elasticity of supply are as under:

(i) Time period. Time is the most significant factor which affects the elasticity of supply. If the price of a commodity rises and the producers have enough time to make adjustment in the level of output, the elasticity of supply will be more elastic. If the time period is short and the supply cannot be expanded after a price increase, the supply is relatively inelastic.

(ii) Ability to store output. The goods which can be safety stored have relatively elastic supply over the goods which are perishable and do not have storage facilities.

(iii) Factor mobility. If the factors of production can be easily moved from one use to another, it will affect elasticity of supply. The higher the mobility of factors, the greater is the elasticity of supply of the good and vice versa.

(iv) Changes in marginal cost of production. If with the expansion of output, marginal cost increases and marginal return declines, the price elasticity of supply will be less elastic to that extent.

(v) Excess supply. When there is excess capacity and the producer can increase output easily to take advantage of the rising prices, the supply is more elastic. In case the production is already up to the maximum from the existing resources, the rising prices will not affect supply in the short period. The supply will be more inelastic.

(vi) Availability of infrastructure facilities. If infrastructure facilities are available for expanding output of a particular good in response to the rise in prices, the elasticity of supply will be relatively more elastic.

(vii) Agricultural or industrial products. In agriculture, time is required to increase output in response to rise in prices of goods. The supply of agricultural goods is fairly inelastic. As regards the supply of manufactured consumer goods, it is comparatively easy to increase production in a short period. Therefore, the supply of consumer goods is fairly more elastic; In case of supply of aero planes or any other heavy machinery, the supply is relatively inelastic as it takes time to manufacture heavy machinery.

Price determination – equilibrium price and quantity – determination of market price

PRICE DETERMINATION UNDER PERFECT COMPETITION

Having studied the demand and supply, we know that market demand curve is the horizontal summation of the individual demand curves , and similarly the horizontal summation of the individual supply curves become market supply curve.

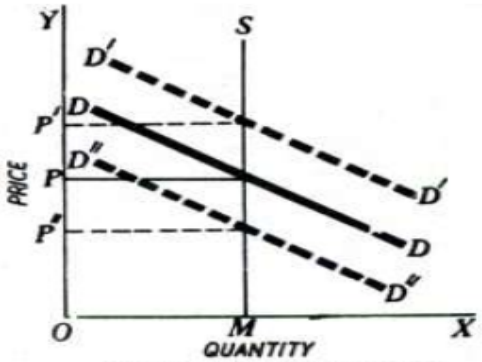
The intersection of market demand curve and the market supply curve indicates the equality of quantity demanded by the consumers and that supplied by the producers. This equality of quantity demanded and quantity supplied is called equilibrium quantity and the price that occurs at this balancing point is called equilibrium price where the quantity demanded is equal to quantity supplied. When such condition prevails in the market, the market is said to be in equilibrium, because there are neither shortages nor surpluses of commodity.

DETERMINATION OF MARKET PRICE

Market price is determined by the equilibrium between demand and supply in market period or very short run. This market period may be an hour, a day or a few days or even a few weeks depending upon the nature of the product. The period being short, stock is limited and cannot be produced to meet the increase in demand. Therefore, the sellers have to confine to the produce available with them. Example: Perishable commodities like fish. The nature of supply curve in a market period under the two situations of perishable and non-perishable goods are discussed

Market Price of a Perishable Commodity

The graphical representation for the market price of Perishable Commodity like fish is presented in Figure . The supply is limited by the available quantity on that day, and it cannot be kept back for the next period and therefore, the whole of it must be sold away on the same day at prevailing prices.



Market Price of a Perishable Commodity

The supply curve of fish is a vertical straight line MS, when OM is the quantity of fish available on that day. DD is the market demand curve. With perfect competition between buyers and sellers, an equilibrium price OP will be determined at which the quantity demanded is equal to the available supply. That is, equilibrium price will be established at the point where downward slopping demand curve DD intersects the vertical supply curve MS.

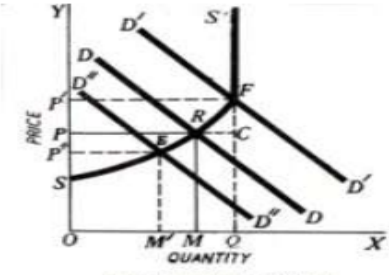
Now suppose that there is a sudden increase in demand from DD to D'D' with the supply of fish remaining unchanged, the larger demand will raise the market price sharply from OP to OP'. On the contrary, if there is a decrease in demand from DD to D'' D'' the price will fall and the quantity sold will remain the same.

Market Price of Non-Perishable and Reproducible Goods

In case of non-perishable but reproducible goods, supply curve cannot be a vertical straight line and the seller rough out its length, because some of the goods can be preserved or kept back from the market and carried over to the next market period. There will then be two critical price levels. The first, if price is very high the seller will be prepared to sell the whole stock. The second level is set by a low price at which the seller would not sell any amount in the present market period, but will hold back the whole stock of some better time. The price below which the seller will refuse to sell is called the Reserve Price.

Given the two price levels, one at which the seller is prepared to sell the whole stock and the other at which he will refuse to sell at all, the amount which he will offer for sale will vary with price. Given his anticipations of future price and intensity of his need for cash, etc., he will be prepared to supply more at a higher price than at a lower one. The supply curve of a seller will, therefore, slope upward to the right. Beyond a price at which he is prepared to sell the whole stock, the supply curve will be a vertical straight line whatever the price.

In Figure SRFS' is the supply curve of the durable goods while OQ is the total amount of the stock of the goods. Up to price OP', the quantity



Market Price of a Durable Commodity

Supplied varies with price so that at a higher price more is supplied that at a lower one. At the price OS, nothing is sold, the whole stock being held back. Therefore, SF portion of the supply curve slopes upwards from left to right. At price OP' the whole of the stock is offered for sale, and beyond the price OP' the quantity supplied remains the same what

ever the price. Therefore, beyond the price OP', the market supply curve will be vertical straight line (FS'). DD is the demand curve which slope downwards from left to right. Market price comes to settle at OP, because at this price the quantity demanded is equal to the quantity supplied. At this equilibrium price OP, OM amount from the stock is sold , while the rest of the stock i.e., MQ (=RC) is held back from the market.

Suppose now the demand increases from DD to D' D', the price will rise to OP', and the whole stock OQ will be sold. If now the demand, further increase

from D' D' to some higher level, the quantity supplied or sold will remain the some, i.e., equal to OQ, and only the price will rise so that, at the new equilibrium level, the quantity demanded is equal to the available supply. If the demand decreases from DD to D' D', the price will be fall to OP'', and the amount sold will decrease to OM'.

Since, in a perfectly competitive market, the product is homogeneous and no buyer has any preference for a particular seller, therefore, a single uniform market price will be established in the market. Once the market price is determined, an individual seller in the market will take the price as given and constant. Thus, the demand curve which is downward slopping for all sellers is for a single seller a horizontal straight line, i.e., perfectly elastic at the level of the ruling market price.

One important conclusion that follows from the above analysis of price determination in the market period is that costs of production do not enter into the calculation of the seller, and therefore, have little influence on the market price.