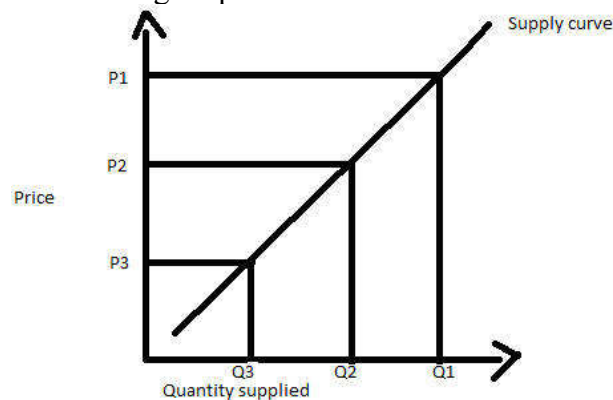


## Definition of 'Law Of Supply'

**Definition:** Law of supply states that other factors remaining constant, price and quantity supplied of a good are directly related to each other. In other words, when the price paid by buyers for a good rises, then suppliers increase the supply of that good in the market.

**Description:** Law of supply depicts the producer behavior at the time of changes in the prices of goods and services. When the price of a good rises, the supplier increases the supply in order to earn a profit because of higher prices.



The above diagram shows the supply curve that is upward sloping (positive relation between the price and the quantity supplied). When the price of the good was at P3, suppliers were supplying Q3 quantity. As the price starts rising, the quantity supplied also starts rising.

## Supply functions

$$S_x = f(p_x, p_f, o, \dots, T, t, s)$$

The supply function is the mathematical expression of the relationship between supply and those factors that affect the willingness and ability of a supplier to offer goods for sale

$SX$  = Supply of goods

$PX$  = Price

$PF$  = Factor input employed (used) for production.

- ☐ Raw material
- ☐ Human resources
- ☐ Machinery

$O$  = Factors outside economic sphere.

$T$  = Technology.

$t$  = Taxes.

$S$  = Subsidies

There is a functional (direct) relationship between price and supply.

- 1) Constant returns to scale could be permitted, in which case, if profit maximization at a nonzero output is possible at all, then it necessarily occurs at all levels of output.
- 2) Shifting from the short-run to the long-run context imposes a second form of assumption modification. This requires the elimination of all fixed inputs so that each  $b_{il} = 0$ , and the inclusion of the long-run equilibrium condition  $\pi_{il} = 0$  for every firm.
- 3) A third possibility for assumption modification is the introduction of imperfectly competitive elements that give firms some influence over the prices they charge for their outputs.

## **Types of Elasticity of Supply**

**There are five types of elasticity of supply.**

### **1. Relatively elastic supply (see Diagram 3.13)**

The coefficient of elastic supply is greater than 1 ( $E_s > 1$ ). One percent change in the price of a commodity causes more than one per cent change in the quantity supplied of the commodity.

### **2. Unitary elastic supply (see Diagram 3.13)**

The coefficient of elastic supply is equal to 1 ( $E_s = 1$ ). One percent change in the price of a commodity causes an equal (one per cent) change in the quantity supplied of the commodity.

### **3. Relatively inelastic supply (see Diagram 3.13)**

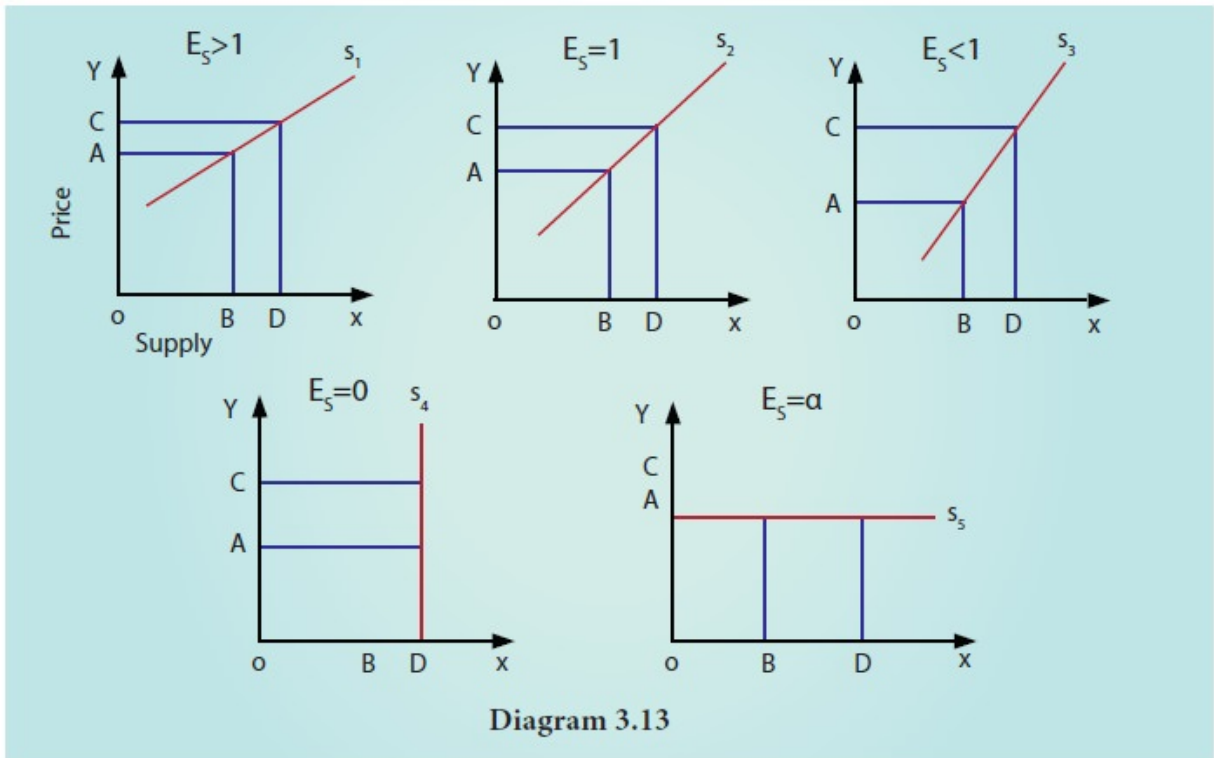
The coefficient of elasticity is less than one ( $E_s < 1$ ). One percent change in the price of a commodity causes a less than one per cent change in the quantity supplied of the commodity.

### **4. Perfectly inelastic supply (see Diagram 3.13)**

The coefficient of elasticity is equal to zero ( $E_s = 0$ ). One percent change in the price of a commodity causes no change in the quantity supplied of the commodity.

### **5. Perfectly elastic supply (see Diagram 3.13)**

The coefficient of elasticity of supply is infinity. ( $E_s = \alpha$ ). One percent change in the price of a commodity causes an infinite change in the quantity supplied of the commodity.

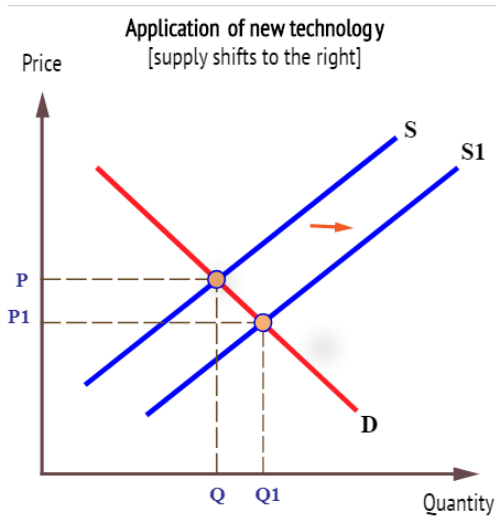


## Shifts in supply

The position of a supply curve will change following a change in one or more of the *underlying determinants* of supply. For example, a change in **costs**, such as a change in labour or raw material costs, will shift the position of the supply curve.

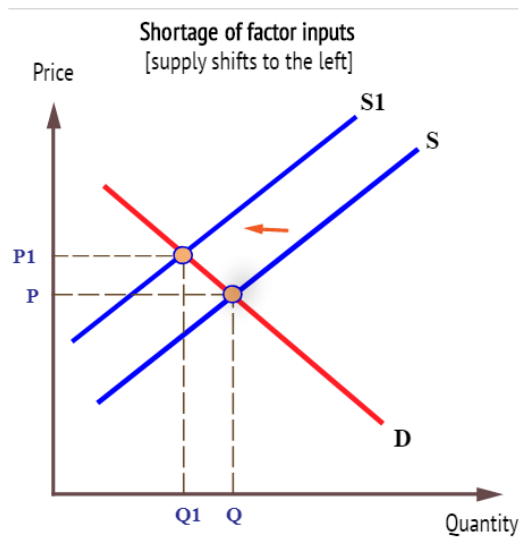
## Rising costs

If costs rise, less can be produced at any given price, and the supply curve will shift to the left.



## Falling costs

If costs fall, more can be produced, and the supply curve will shift to the right.



Any change in an underlying determinant of supply, such as a change in the availability of factors, or changes in weather, **taxes**, and **subsidies**, will shift the supply curve to the left or right.