



# Supply

## A Level Economics

## Supply

Supply in economics shows how much producers are willing and able to sell at each price level. As with demand, it will be influenced by a whole range of factors – productivity, the costs of production, the availability of stocks, the weather etc., but it is the relationship between supply and price which is the one we are interested in.

Behind the supply curve there are several important assumptions, without which supply curves make no sense.

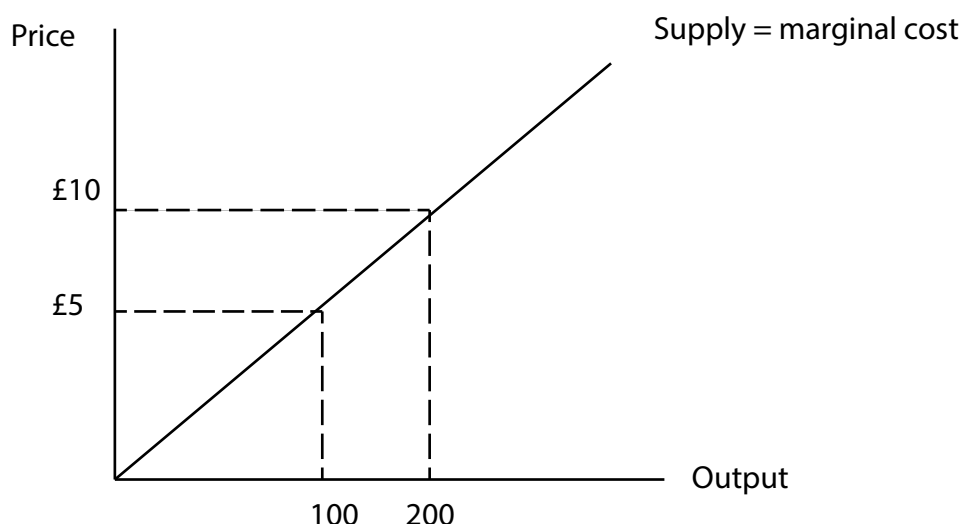
Firstly we are assuming that firms do not set their own prices – if they did then the whole idea of asking how a firm would respond to a price change would make no sense. Therefore, we are generally looking at markets for commodities such as oil and wheat where prices are determined by market forces, not by one firm.

Secondly, we assume that these firms wish to maximise their profits. Therefore, they will only supply a unit if the price that they receive is greater than the cost of making it (known as the marginal cost).

Thirdly, we assume that production becomes more difficult as a business tries to supply more. Imagine the oil and gas industry. To supply a small amount of oil is fairly straightforward, but as the demand has risen, firms have had to engage in more and more costly exploration – hence the cost of an extra barrel of oil rises. This can also be explained using the principle of diminishing returns to a factor, which states that in the short run there is at least one factor of production which can't be changed. Therefore, increasing supply means that this fixed factor of production will eventually become overused, and therefore firms' costs will rise.

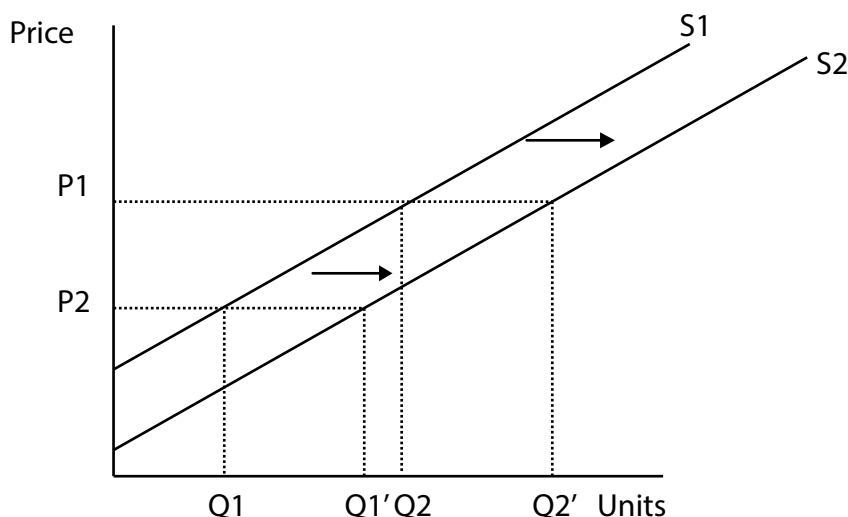
Fourthly, when firms see a price rise, they believe that this is because there is more demand – therefore rising prices give them an incentive to produce more, so that they can make more profit.

Therefore, we have profit maximising firms whose costs are rising as they try to supply more. What this means is that they will only supply more if they are offered a higher price, because the cost of each unit is rising. Therefore the supply curve will slope upwards (be positively correlated with price):



If the price is £5, firms will supply only 100 units even if the demand is much greater – this is because the units after 100 cost more than £5 to produce. The firm will only increase supply to 200 units if it is offered a higher price to cover the higher costs of production. As with demand, a change in the price offered does not shift the supply function – it shows supply for all prices given current conditions. Only a change in those conditions can cause supply to change.

A common mistake when shifting supply curves is to fail to realise that quantity is on the horizontal axis. Therefore when supply goes ‘up’ this does not mean a vertical movement, but rather a shift to the right:



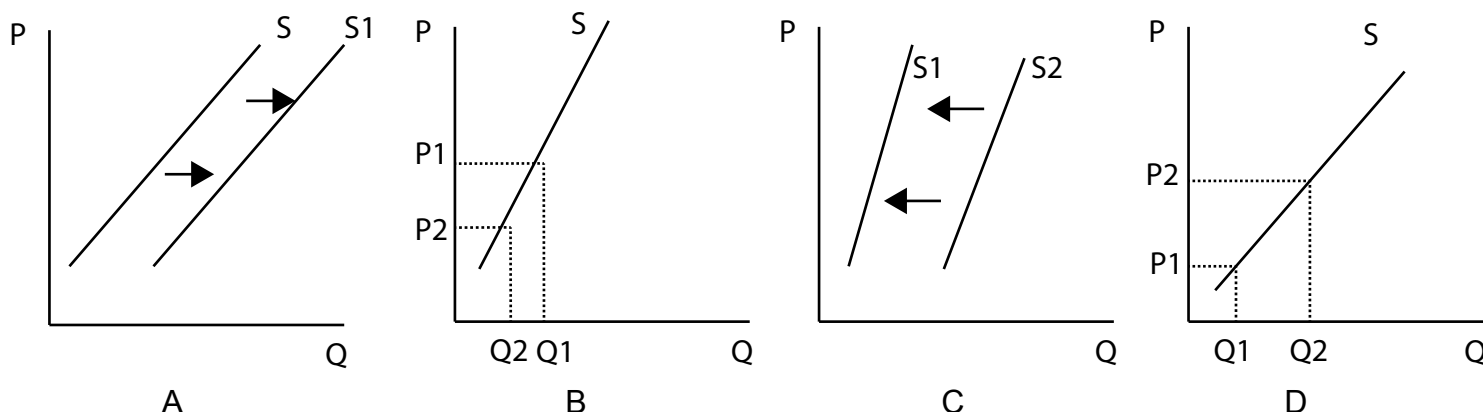
The shift from S1 to S2 is an increase in supply because the number of units which suppliers are prepared to put on the market is greater at both P1 and P2. Supply has gone ‘up’.

## Changes in supply

Supply can change for one of four reasons. Firstly price could rise or price could fall. This will lead to a **movement along** the supply curve, because the supply curve shows how much producers are willing to sell at each price.

Alternatively, there could be a change in a factor **other than** price – the weather, production costs etc. This will mean that supply will be greater or lower at every price – there will be a **shift** in supply.

Looking at the four supply curves below, suppose that these are in the market for orange juice:



'A' might be sunny weather in Florida – there is simply more orange juice available at any price than there was in the previous year. Therefore 2015 supply is S1 whereas 2014 supply is S.

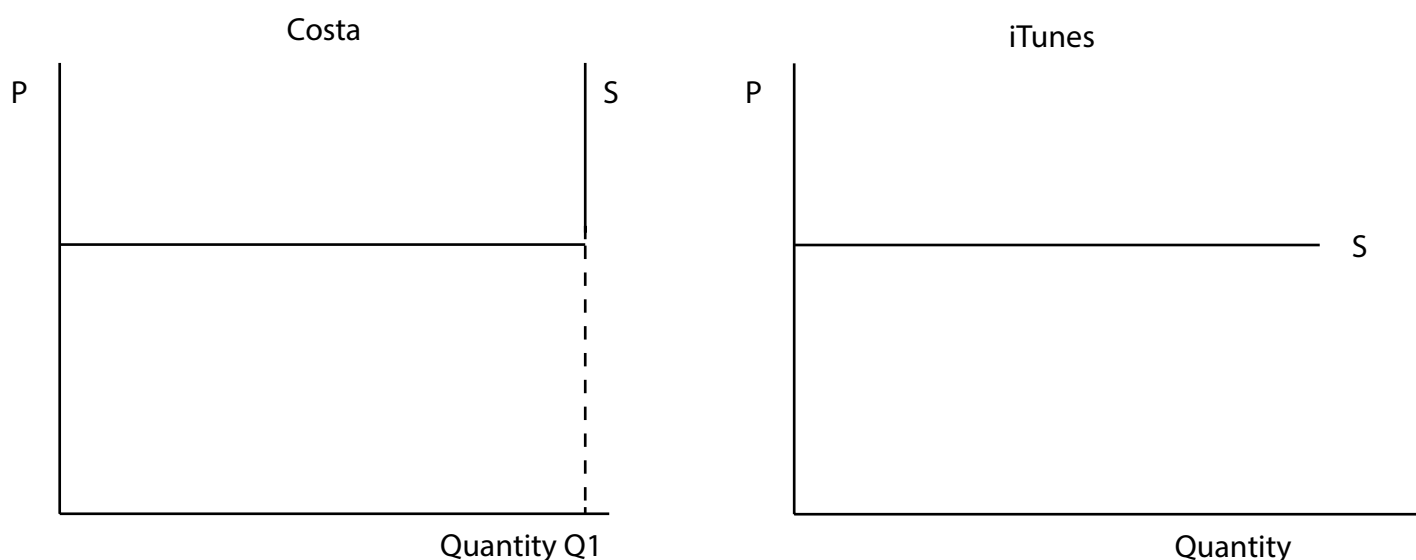
'B' might be the discovery that orange juice is bad for the liver (it isn't). This would cause demand to fall and the price to collapse. Supply falls, but along the supply curve because the change is a change in price. Therefore the quantity supplied falls from Q1 to Q2.

'C' might be some sort of disease affecting orange trees. Whatever the price is, supply will be lower after the disease than it was before.

'D' might be the effects of healthier living. Demand for orange juice increases, pushing up the price. Therefore firms want to supply more to make more profits, and are able to do so because the higher price allows them to cover the higher costs of expanding supply.

## Other supply curves

The upward sloping nature of supply assumes that the cost of making each extra unit increases as a firm tries to increase supply. It is easy to think of situations in which this will not be the case – the cost to Costa of making an extra cup of coffee, for example, or the cost to Apple of selling another music download from iTunes. In these cases, the supply curve will not be upward sloping because the firms will supply more even if price does not rise – they can do this because marginal costs do not rise.



(Q1 means that Costa is full – the firm has reached capacity)

Sometimes supply will be completely fixed – it can't be increased at all – the number of paintings by Monet for example:

