<u>Supply and Demand:</u>

<u>What is a market?</u>

The prices of goods and services are determined in a market. You can have local, national, and international markets. The market is when producers and consumers get together for exchange.

<u>Basic consumer behavior:</u> Buying products at the cheapest price.

<u>Demand:</u> The first aspect of this concept is that there should be a willingness to buy the product. The second aspect is how much consumers are willing to pay for it.

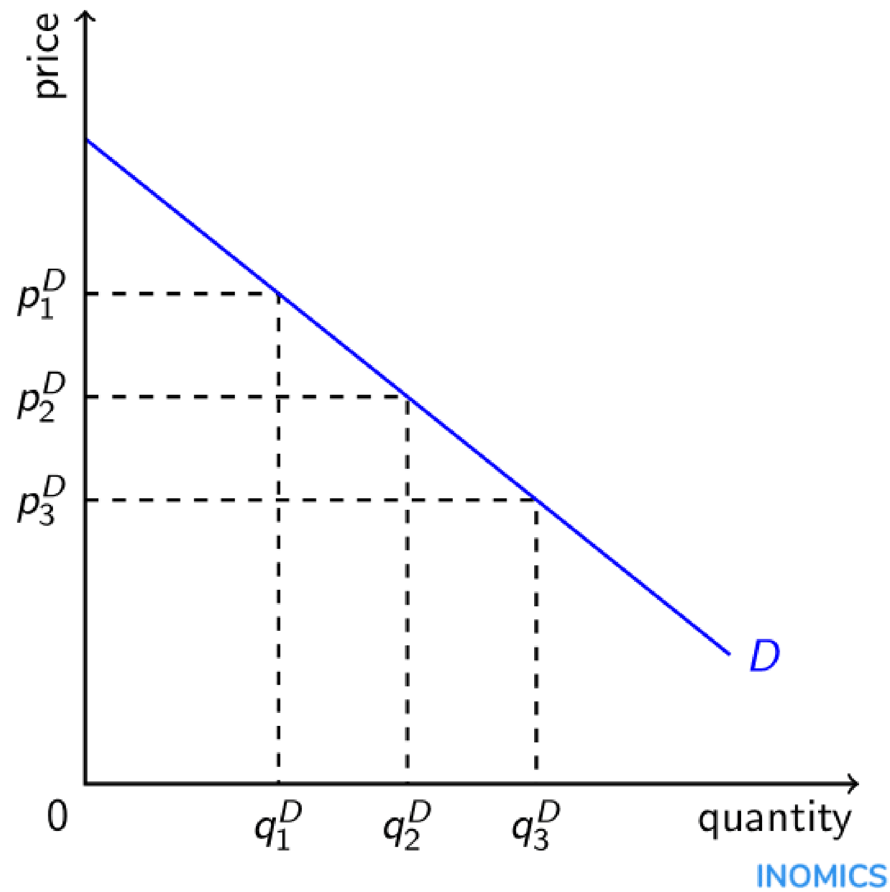
<u>Ceteris Paribus:</u> When all other factors remain constant (factors affecting demand/supply).

<u>Extend:</u> Extension in economics means that the quantity demanded or supplied, or the price has increased whilst other factors remain constant. We use the word extension instead of increase because increase is used when demand or supply shifts.

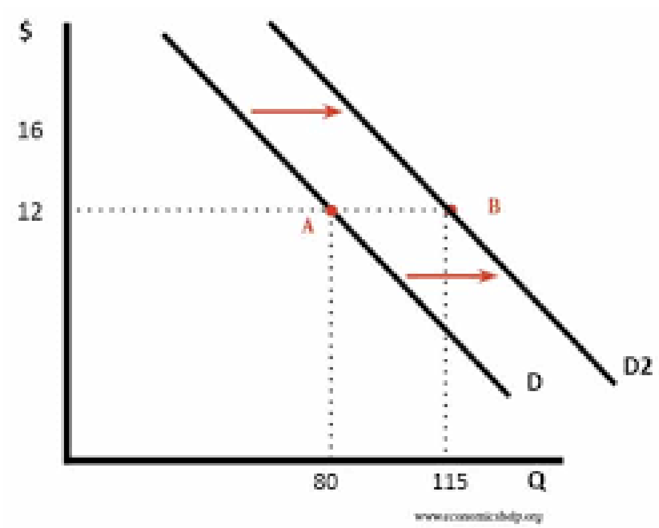
<u>Contraction:</u> Contract is only used when there is a fall in price or decrease in quantity demanded or supplied. This word is only used when all other factors are at constant. We use this word instead of decrease because decrease is used when demand or supply is shifted.

<u>The Law of Demand:</u> At ceteris paribus, price and quantity demanded have an inverse relationship. For example, if the price for shoes contracts in the market, then consequently, the quantity demanded for the shoes will extend.

<u>Demand curve:</u> Movement along the curve only happens at ceteris paribus.



<u>Shift in demand:</u> Shifts in demand only occur when there is a change in other factors. In these circumstances we use the terminology increase and decrease in demand.



<u>Market demand curve:</u> To calculate the market demand you have to check what quantity is demanded from each consumer at each price.

Changes in factors affecting demand:

- Change in income
- Popularity or trend change
- Increase of advertising
- Substitute goods
- Complementary goods
- Seasonal factors
- Population

Inferior goods and normal goods: Inferior goods are products people buy when they do not have enough money, so when people's income increases, the demand for inferior goods decreases. Normal goods are goods that have a direct proportion to quantity demanded and income change.

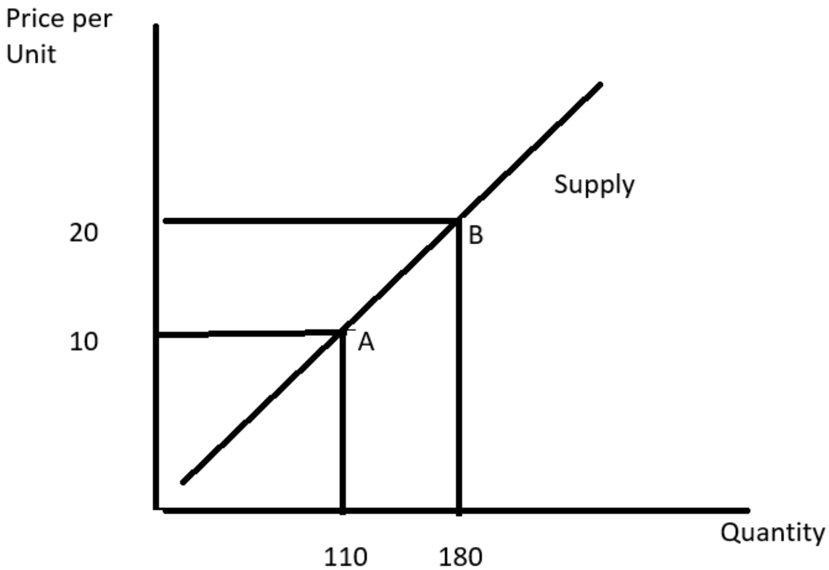
Substitute goods: Substitute goods are products that can satisfy the same want, for example, a taxi or a bus. Substitute goods have inverse relationships to each other's markets usually. For example, when the price of a cab decreases, you would rather take a cab than a bus.

Complementary good: A complementary good is a product that you must buy with another for example you must keep buying gas once you buy a car. The markets for complementary goods have a direct relationship with each other.

Supply: **Supply is the willingness and ability to provide products to consumers.**

The law of supply: At ceteris paribus, the price and quantity supplied have a directly proportional relationship.

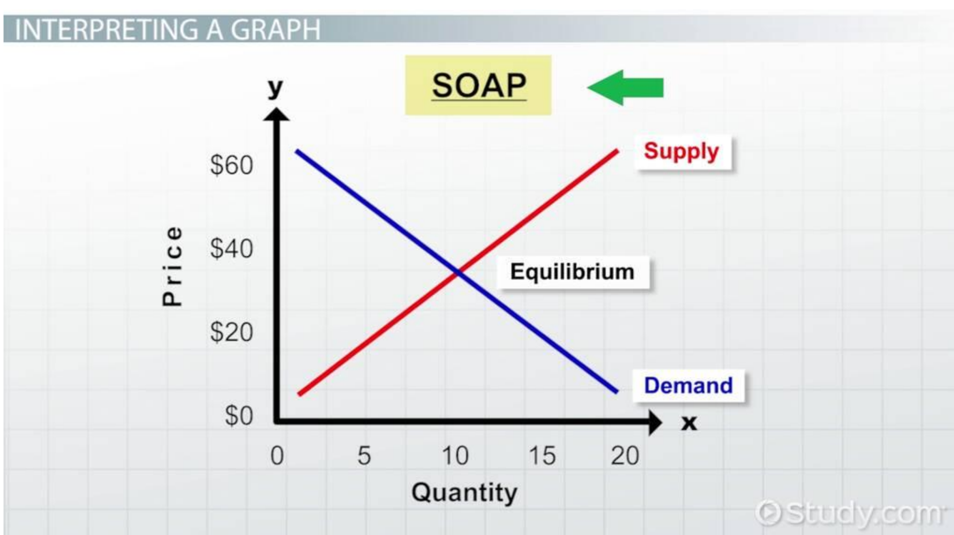
Supply curve: Movement along the supply curve is only possible at ceteris paribus so you use the terminology extension and contraction. When there is a shift in supply you use the terminology increase and decrease.



<u>Shifts in supply:</u> This only occurs when there is a change in factors affecting supply:

- **Changes in technology (inventions/innovations)**
- **Cost of production decreasing**
- **Increase of efficiency in production**
- **Accidents/natural disasters**
- **Government interventions**

<u>Market equilibrium:</u> Market equilibrium is a point in a supply and demand graph where both supply and demand have the same quantity. Whenever you make a supply and demand curve you should always mark the market equilibrium.



Disequilibrium: **There are two types of disequilibrium:**

- **Surplus – This is when there is too much supply as compared to the quantity demanded.**
- **Shortage – This is when there is not enough supply to satisfy the quantity demanded.**

PED (price elasticity of demand): **PED is the measure of the reaction of consumers to a change in price in a certain market. If the PED is greater than 1 it is elastic, if the PED is less than 1 it is price inelastic.**

$$\frac{\%\,\Delta\text{ [change] in quantity demanded}}{\%\,\Delta\text{ [change] in price}} \text{ or } \left(\frac{\%\Delta qd}{\%\Delta p}\right)$$

How to answer questions asking to comment on the elasticity of the market: For every 1% change in price, quantity demanded changes x amount when the PED is x amount.

Types of elasticity:

- Inelastic -> PED is less than 1
- Elastic -> PED is greater than 1
- Perfectly inelastic -> PED = 0 (very rare)
- Perfectly elastic -> PED is undefined (very rare)

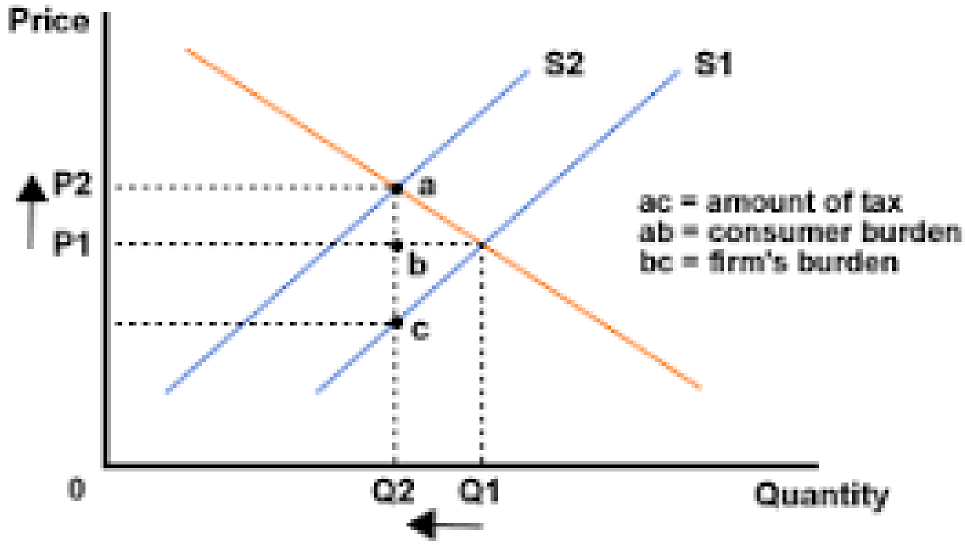
Factors affecting PED:

- If the product is a necessity (inelastic)
- If the product is a luxury (elastic)
- If it is a Veblen good (inelastic)
- The number of substitutes (the greater the number the more elastic)
- The time period (in the short run it is elastic, in the long run it is inelastic)
- Proportion of income spent (if it is a large amount of your income, it is elastic, vice versa)
- If the product is addictive or not

Total revenue: The total amount of money you attain by selling a product (different from profit). Formula -> Number of units sold • the price of each unit.

- When you have an elastic product total revenue will be inversely proportional to the price.
- When you have an inelastic product the total revenue and the price will be directly proportional.

How government taxes based on PED:



PES (Price elasticity of supply): The measure of the responsiveness of the firms production to the changes in price. If the PES is greater than 1 then it is elastic, if the PES is less than 1 then it is inelastic.

$$\frac{\%\,\Delta\ [\text{Change in}]\ \text{quantity supplied}}{\%\,\Delta\ [\text{Change in}]\ \text{price}} \quad \text{or} \quad \left(\frac{\%\Delta qs}{\%\Delta p}\right)$$

Price volatility: The price can change a lot which means demand should be inelastic.

Factors affecting PES:

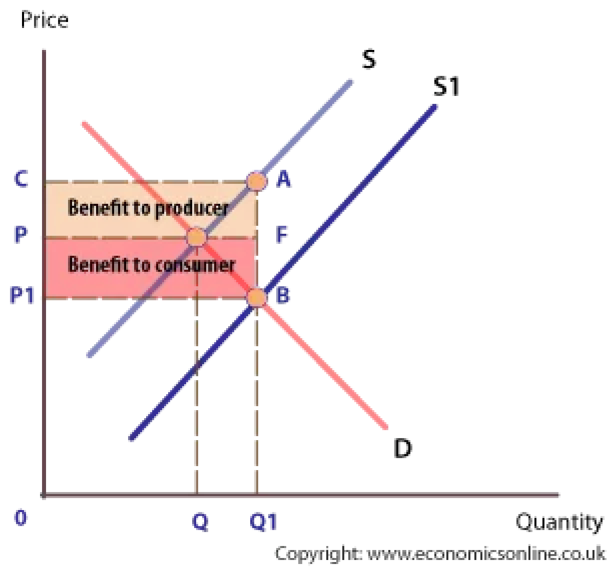
- Availability of stock
- Having productive capacity (potential of making goods)
- Time (in the short run it is inelastic, and in the long run it is elastic)
- The mobility factor (when you have more factor mobility it is more elastic, when you have restricted mobility, it is more inelastic)

Subsidies: It is money given by the government to a company to increase production.

Impact: It will reduce the cost of production which is why supply would increase.

Examples of subsidies:

- Medicine department
- Production of masks during COVID-19
- Education



Comparison of inelastic and elastic demand