1.2.5 Elasticity of supply

a) Understanding of price elasticity of supply
b) Use formula to calculate price elasticity of supply
c) Interpret numerical values of price elasticity of supply: perfectly and relatively elastic, and perfectly and relatively inelastic
d) Factors that influence price elasticity of supply
e) The distinction between short run and long run in economics and its significance for elasticity of supply

- Price elasticity of supply (PES): The sensitivity of supply of a product to a change in its price.
- The PES is positive as an increase in price is likely to cause an increase in quantity supplied
- When supply is elastic, producers can increase production without a rise in cost or a time delay
- When supply is inelastic, firms find it hard to change production levels in a given period
- PES= percentage change in quantity supplied/ percentage change in price
- Price inelastic supply: A change in price has led to a smaller percentage change in quantity supplied. The PES is between 0 and 1.
- Price elastic supply: If the value of the PES is over 1 as a percentage change in price will cause a larger percentage change in quantity supplied
- Perfectly inelastic supply: It has a PES of 0 so a change in price has no effect on the quantity supplied
- Perfectly elastic supply: The PES is infinity so a fall in price means that the quantity supplied will be reduced to zero
- Factors affecting PES:
    - Time: inelastic in short-term by elastic in long-term
    - Stocks: if stocks of goods are available supply is elastic
    - Spare capacity: under-utilised machinery and workers makes supply elastic
    - Availability and costs of switching resources from one use to another
- Unit elasticity of supply: PES=1. A change in price leads to the same percentage change in quantity supplied
- Factors affecting PES:
    1. Time- 1. Momentary period (fixed supply), short run (inelastic), long run (elastic). Artificial limits such as patents with time restrictions can make supply inelastic or planning permission
    2. High stock levels mean elastic supply: a low level of stock makes supply inelastic in the short term but when stocks can be released onto the market quicker, supply is elastic
    3. Spare capacity- machinery not being used.
    4. Availability and cost of switching resources from one use to another: factor substitution possibilities is how easy it is to transfer resources into a market. When factors are highly specialised, substitution may be harder and thus there will be inelastic supply- when factor substitution is possible and can be achieved at lost costs, supply will be elastic

5. During unemployment supply is elastic as it is easy to get workers
6. Perishable goods have inelastic supply

- Short-run economics: A time period with at least one fixed factor of production as it takes time to build additional facilities so short run supply is inelastic
- Long run economics: A time period in which all factors of production can be varied so a firm can increase its capacity so supply is more elastic because firms have longer to react to changes in price and demand
- Temporary workers can relieve shortages of labour and make the market more elastic
- The significance of PES to firms: Firms aim to have elastic supply using latest technology and spare production capacity so they are responsive to price change.
- Where there is a shift in demand, PES defines how much output increases/ decreases