OCR Economics A-level

Microeconomics

Topic 4: Market Structures

4.2 Monopoly

Notes

Characteristics of monopoly:

- Monopolies can be characterised by:
  - Profit maximisation. A monopolist earns supernormal profits in both the short run and the long run.
  - Sole seller in a market (a **pure monopoly**)
  - High barriers to entry
  - Price maker
  - Price discrimination

- In the UK, when one firm dominates the market with more than 25% market share, the firm has **monopoly power**. For example, Google dominates the search engine market, with 90% share.

- Monopoly power can be gained when there are multiple suppliers. If two large firms in an oligopoly (several large sellers) have greater than 25% market share, they are said to have monopoly power. For example, Sainsbury's and Asda have more than 25% market share combined, so they are said to have monopoly power.

- There are very few examples of pure monopolies, but several firms have monopoly power. Firms operating in oligopolistic and monopolistic markets are price makers and they have varying degrees of monopoly power.

Dynamic and X efficiency:

- Dynamic efficiency is concerned with new technology and increases in productivity, which causes efficiency to increase over a period of time

- Dynamic efficiency is influenced by, for example, research and development, investment in human and non-human capital and technological change.

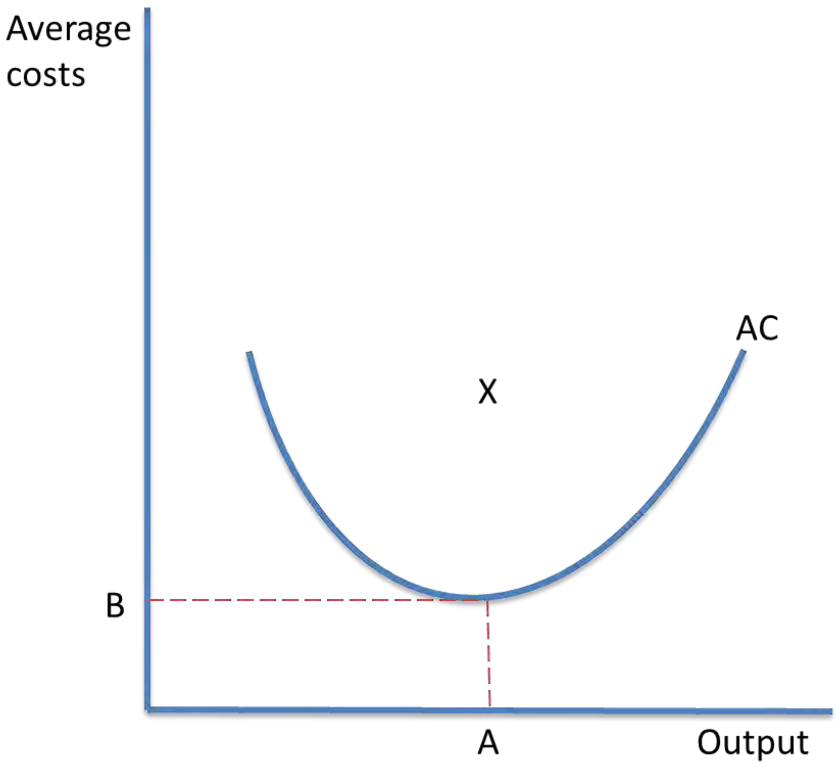
- It is when all resources are allocated efficiently over time, and the rate of innovation is at the optimum level, which leads to falling long run average costs. The market is dynamically efficient if consumer needs and wants are met as time goes on. It is related to the rate of innovation, which might lead to lower costs of production in the future, or the creation of new products.

- Dynamic efficiency is affected by short run factors such as demand, interest rates and past profitability. Short run costs might be increased in order to cause long run costs to fall.

- Dynamic efficiency can be evaluated by considering the long time lag between making an investment and having falling average costs and by considering how factors change in the long run. Moreover, some firms will face a trade-off between giving their shareholders dividends and making an investment.
- A monopoly may be dynamically efficiency as their ability to earn abnormal profit enables them to invest in new technology etc.

X-inefficiency:

- A firm is x-inefficient when it is producing within the AC boundary. Costs are higher than they would be with competition in the market. The point 'X' on the diagram shows x-inefficiency.



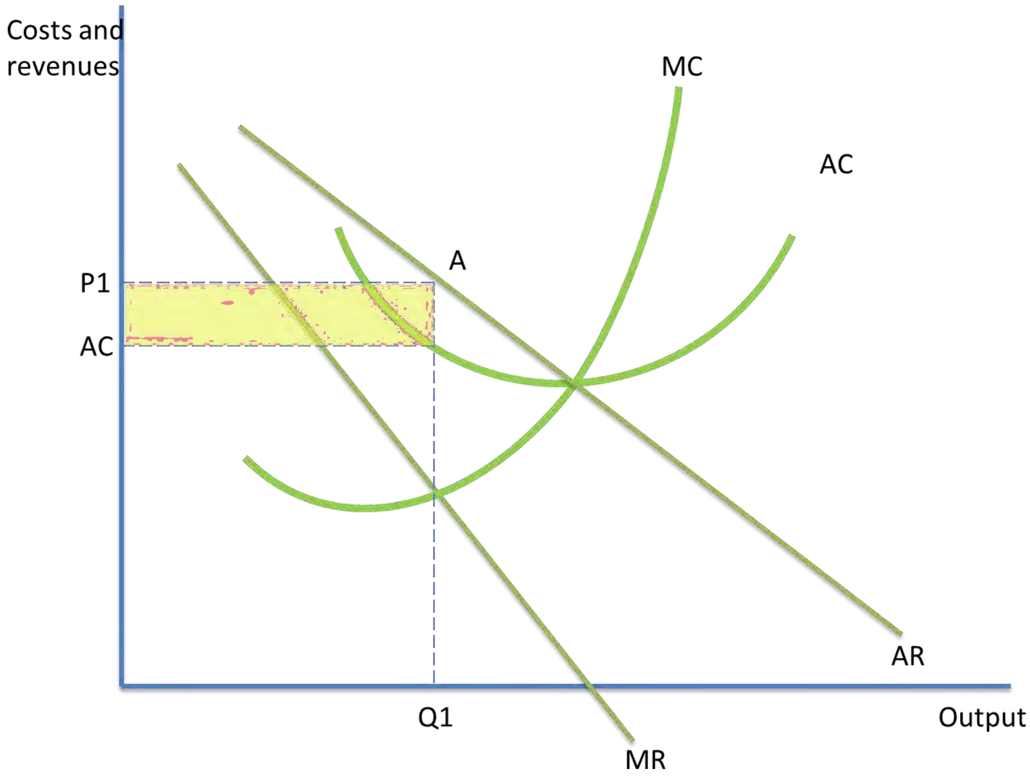
- This could be due to organisational slack, a waste in the production process, poor management, or simply laziness. Monopolies tend to be x-inefficient, since they have little incentive to lower their average costs because of the lack of competition they face.

Monopoly power is influenced by factors such as:

- **Barriers to entry:** The higher the barriers to entry, the easier it is for firms to maintain monopoly power. Examples of barriers to entry which can maintain monopoly power are:
- **Economies of scale:** As firms grow larger, the average cost of production falls because of economies of scale. This means existing large firms have a cost advantage over new entrants to the market, which maintains their monopoly power. It deters new firms from entering the market, because they are not able to compete with existing firms.
- **Limit pricing:** This involves the existing firm setting the price of their good below the production costs of new entrants, to make sure new firms cannot enter profitably.
- **Owning a resource:** Early entrants to a market can establish their monopoly power by gaining control of a resource. For example, BT owns the network of cables so new firms would find it very difficult to enter the market.
- **Sunk costs:** If unrecoverable costs, such as advertising, are high in an industry, then new firms will be deterred from entering the market, because if they are unable to compete, they do not get the value of the costs back.
- **Brand loyalty:** If consumers are very loyal to a brand, which can be increased with **advertising**, it is difficult for new firms to gain market share.
- **Set-up costs:** If it is expensive to establish the firm, then new firms will be unlikely to enter the market.
- **The number of competitors:** The fewer the number of firms, the lower the barriers to entry, and the harder it is to gain a large market share.
- **Advertising:** Advertising can increase consumer loyalty, making demand price inelastic, and creating a barrier to entry.
- **The degree of product differentiation:** The more the product can be differentiated, through quality, pricing and branding, the easier it is to gain market share. This is because the more unique the product seems, the fewer competitors the firm faces.

Profit maximising equilibrium:

- A monopolist earns supernormal profits in both the short run and the long run. This is at the point MC = MR, so the monopolist produces an output of Q1 at a price of P1.
- The shaded rectangle shows the area of supernormal profits.



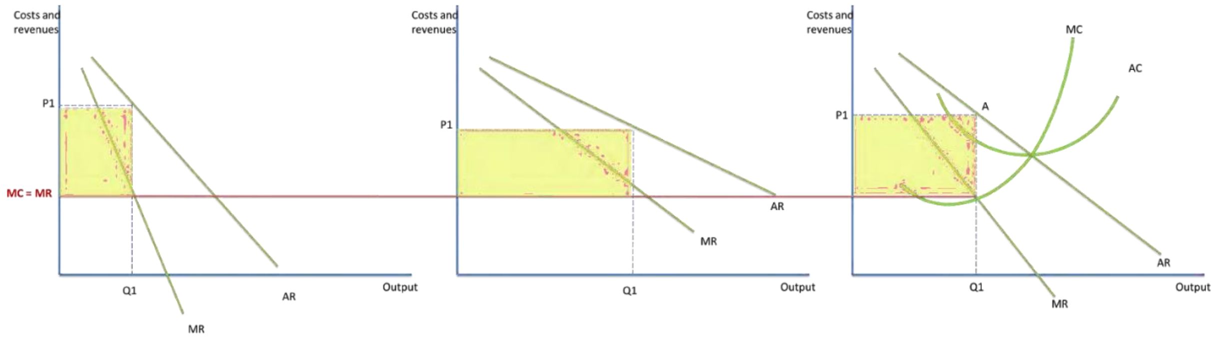
- Since the firm is the sole supplier in the market, the firm's cost and revenue curve is the same as the industry's cost and revenue curve. Firms are price makers in a monopoly.
- P>MC in the diagram, due to profit maximisation which occurs at MC = MR, so there is allocative inefficiency in a monopoly.
- Monopolies are not productively efficient as they do not operate at the lowest point of their AC curve.
- AR > AC, so there are supernormal profits

Price discrimination by a business with monopoly power:

- Price discrimination occurs in a monopoly, when the monopolist decides to charge different groups of consumers different prices, **for the same good or service.** This is not for cost reasons.

- Usually, demand curves of different elasticities exist with each group of consumers. This allows the market to be split and different prices to be charged. It must not cost the monopolist much to split the market; otherwise, it will not be financially worthwhile.

- The diagram shows the different price elasticities in a market, which might mean the monopolist charges different prices. A market with an elastic demand curve (the second graph) will have a lower price, while a market with an inelastic demand curve will have a higher price (first graph). The third graph shows the firm's costs and revenues. The area of supernormal profit is represented by the yellow shaded rectangle.



- By charging different prices, the monopolist can maximise their overall profits.

- First degree price discrimination is when each consumer is charged a different price. For example, a lawyer might charge a high income family more than a low income family.
- Second degree price discrimination is when prices are different according to the volume purchased. For example, with gas.

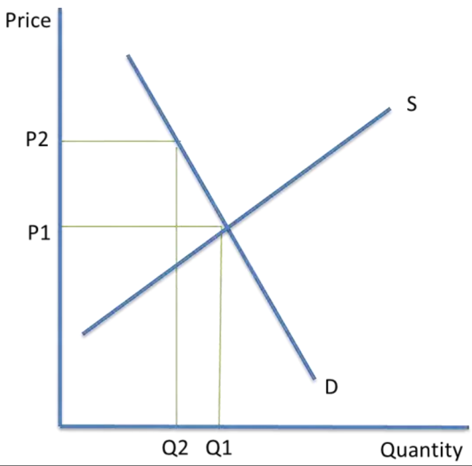
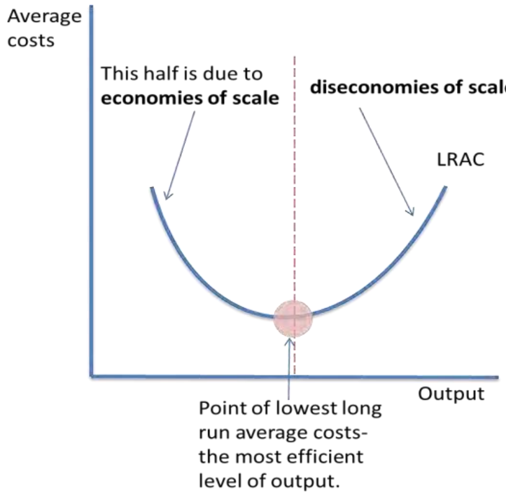
- Third degree price discrimination is when different groups of consumers are charged a different price for the same good or service. For example, the higher price at peak times on trains is a form of third degree price discrimination, because generally, a different group of consumers (usually commuters) use trains at peak times, than off-peak times. Similarly, adults, students and children pay different prices to see the same film at a cinema. It costs the cinema the same to show the film, but the consumers have been divided into groups based on age.

	Costs	**Benefits**
Consumers	Usually, price discrimination results in a loss of consumer surplus. Since P > MC, there is a loss of allocative efficiency. It strengthens the monopoly power of firms, which could result in higher prices in the long run for consumers.	Consumers could benefit from a net welfare gain as a result of cross subsidisation, if they receive a lower price. Some consumers, who were previously excluded by high prices, might now be able to benefit from the good or service. For example, drug companies might charge consumers with higher incomes more for the same drugs, so that the less well-off can also access the drugs at a lower price. This can yield positive externalities.
Producers	If it is used as a predatory pricing method, the firm could face investigation by the Competition and Markets Authority. It might cost the firm to divide the market, which limits the benefits they could gain.	Producers make better use of spare capacity. The higher supernormal profits, which result from price discrimination, could help stimulate investment. If more profits are made in one market, a different market which makes losses could be cross subsidised, especially if it yields social benefits. This will limit or prevent job losses, which might result from the closure of the loss-making market.

Advantages and disadvantages of monopoly

Disadvantages	Advantages
The basic model of monopoly suggests that higher prices and profits and inefficiency may result in a misallocation of resources compared to the outcome in a competitive market.	Monopolies can earn significant supernormal profits, so they might invest more in research and development. This can yield positive externalities, and make the monopoly more dynamically efficient in the long run. There could be more invention and innovation as a result. Moreover, firms are more likely to innovate if they can protect their ideas. This is more likely to happen in a market where there are high barriers to entry, such as in a monopoly.

Monopolies could exploit the consumer by charging them higher prices. This means the good is under-consumed, so consumer needs and wants are not fully met. This loss of allocative efficiency is a form of market failure.	If there is a natural monopoly, it might be more efficient for only one firm to provide the good or service, since having duplicates of the same infrastructure might be wasteful. For example, it might be considered inefficient and wasteful to have two lots of water suppliers.
Monopolies have no incentive to become more efficient, because they have few or no competitors, so production costs are high.	Monopolies could generate export revenue. For example, Microsoft generates a lot of export revenue for America.

There is a loss of consumer surplus and a gain of producer surplus. If a monopolist raises the market price above the competitive equilibrium level, output will fall from Q1 to Q2. This leads to gains in producer surplus. 	Since monopolies are large, they can exploit economies of scale, so they have lower average costs of production. The long run average cost curve can be used to show this: 
Consumers do not get as much choice in a monopoly as they do in a competitive market.	High profits could be a source of government revenue through taxation.

Natural monopoly

- This is an industry which is most efficient when only one firm produces the good or services rather than several. For example, it is inefficient to have multiple sets of water pipes or electricity cables.

Advantages and Disadvantages of a natural monopoly:

Alongside the advantages and disadvantages of a normal monopoly, other points to consider are:

Disadvantages	Advantages
Lack of choice for consumers or risk of overprovision if there are several suppliers	Can benefit from economies of scale through lower average costs
	A sole provider may reduce inefficient duplication of goods or services