3.1 Monopoly

At the end of this section a student should be able to:

- describe and critique the main features of monopolistic product markets
- demonstrate and analyse how a change in demand or supply in a market structure impacts on equilibrium graphically represent, describe and compare market equilibrium under monopoly long run
- graphically represent and evaluate the point of profit maximisation for a firm in a monopoly market
- examine the implications of changing levels of competition and market power on price and output under monopoly
- explain why particular market concentrations are deemed problematic for consumers and are therefore regulated by Irish and European competition authorities

What is a Monopoly?

The characteristics or assumptions underlying monopoly are identified below:

- **One firm in the industry**
  - One firm exists within the industry so there is no distinction between the firm and industry. One firm supplies the output in the entire industry.
- **Controls price** *or* **output**
  - A firm can control price or output but not both. If it sets the price the output produced will be determined by consumers. If it sets the output the price will be determined by the market.
- **Profit maximisation**
  - It is possible for the firm to earn SNP's in both the short run and long run. A firm aims to make maximum profits and it achieves this when MC = MR
- **Barriers to entry**
  - If a monopoly market structure is to continue into existence into the long run there cannot be freedom of entry into the industry. These barriers prevent the entry of new firms into the industry to threaten the position of the monopolist.

Implications of the Assumptions:

- A separate analysis of the short-run and long-run equilibrium position of the monopolist is not necessary. Because of barriers to entry, the short-run profit maximising position of the monopolist may be maintained in the long-run.
- Second, the monopolist is not faced with a horizontal demand curve for his product. If he wants to sell more he must lower his price, therefore, a downward sloping demand curve applies to the monopolist.

  - Third, because of the nature of monopoly, government monitoring is much more likely than is the case under any other form of market structure. This is to ensure that the monopoly firm does not abuse its dominant and powerful position by charging very high prices or engaging in practices which the government might consider to be against the public interest.

Barriers To Entry/Conditions that give rise to Monopolies

- **Government Regulation / Legal restrictions**
  - The government may grant a company the sole right to supply a good or service so that there is a legal restriction on competition e.g. Dublin Bus routes / rail services.
- **Trade Agreements & Collusion.**
  - Companies may enter into trade agreements with other suppliers (collude with them) so that no other company finds it possible to supply the commodity to a particular segment of the market.
- **Ownership of raw materials**
  - A company may acquire the sole right to the available raw materials thereby becoming a monopoly in that particular market e.g. an oil exploration company.
- **Industry requires a large investment in capital / High start-up costs**
  - For some industries the capital required to get established in the industry is so large that only the company which can raise the necessary capital can operate in the market. Competitors are discouraged from entering because of the high initial start-up costs.
- **Mergers / Takeovers**
  - By merging with a competitor or buying out the competitor a company may become a monopoly supplier in that industry.
- **Monopolies based on fear, force or threats**
  - An individual or group of individuals may, by fear, force or threats, stop other individuals competing with the supplier e.g. the supply of illegal drugs
- **Proliferation of brands on the market**
  - By using extensive branding of its products a company may be able to dominate the market so that competitors may find it impossible to compete.

Average Revenue (Demand)/Marignal Revenue Curves of a Monopoly

Since the firm equals the industry is a monopoly, the monopolist faces a downward sloping demand curve for their product. **To sell more of they product he must lower price.**

The average revenue for monopoly always equals the price of the good, which is the same for the competitive market. However, for the marginal revenue, which is the amount of revenue that the firm receives for each additional unit of output, it is always less than the price of the good because a monopoly faces a downward-sloping demand curve. Thus, in order to increase the amount of good the monopoly sold, it needs to lower the prices.

Because the Average Revenue curve equals Price, the **Demand curve also equals Average Revenue**. Both demand and marginal revenue curve start at the same point on the vertical axis because marginal revenue of the first unit sold equals the price. However, the monopolists' marginal revenue on all units after the first unit is less than the price as the quantity increases. The Marginal Revenue curve can also be **negative** when the firm produces an extra unit of output, which makes the price to fall enough so that the total revenue declines, although the firm is selling more units.

Price Per Meter in €	Quantity Output Meter	Total Revenue (TR) in €	Average Revenue (AR) in €	Marginal Revenue (MR) in €
100	1	100	100	-
80	2	160	80	60
60	3	180	60	20
45	4	180	45	0
35	5	175	35	-5

In the above schedule, it is shown that as the monopolist lowers price of his product from €100 per meter to €80 per meter in specified period of time, the sale increase from one unit to two units. The total revenue resulting from the sale of one more unit increases by €60 (MR); whereas the additional unit has been sold for €80. The reason for the total revenue not increasing by the same amount is that the price has been reduced for increasing the sale of the extra units. The price cut is applied to two units of output sold and not to the additional unit alone. Same is the case with the third, fourth and fifth units sold. The marginal revenue is less than the price for all the units of commodity disposed off in the market.

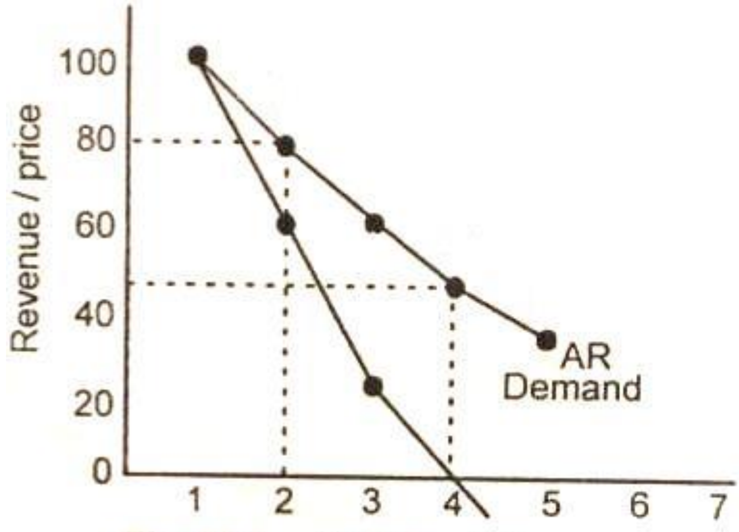

Fig. 16.1

Equilibrium Position of a Monopoly

The Equilibrium Position of a Monopoly

- Equilibrium occurs in the long run at point *e* where MR=MC, and MC continues to rise.
- That is the quantity that ensures profit maximisation, Q1.
- P1 is the price charged.
- AR > AC therefore supernormal profits are made.
- The average cost of production of Q1 is at point B. The firm is not producing at the minimum AC in the long run.
- As the firm is not producing at the lowest point on the AC curve it is wasteful of resources.

Helpful video here & here

What are the Advantages of Monopoly?

- **Economies of scale**
  - Production on a large scale may help the firm benefit from economies of scale and these cost savings may be passed on to the consumer in the form of lower prices.
- **Guarantee supply of product / service**
  - The supply of the product / service may be guaranteed and provided where profit is minimal (e.g. a state monopoly) so consumers benefit e.g. provision of bus services in areas of low population.
- **Employment**
  - As there is no competition employees have greater security of employment/may benefit from preferential conditions of employment /better rates of pay and pensions.
- **Reduced use of scarce resources**
  - There may be less duplication in the provision of products / services. There may be less need for competitive advertising so society's resources are not wasted. Certain services may be best provided by one provider e.g. train tracks /electricity grid so as to avoid duplication.
- **Potential for innovation/ R & D**
  - The (supernormal) profits that monopolies may make could be used for investment in R&D and secure their dominance in the market. Inventors/creators need patent protection otherwise they may not invent.

What are the Disadvantages Of Monopoly/why is this market concentration problematic for consumers?

- **Higher Prices**
  - Monopolies can charge higher prices, compared to perfect competition, because there is no competition. If a monopolist charges a price above AC then it will earn SNPs at the expense of the consumer.
- **Lower output produced**
  - Monopolies with similar costs to a firm in perfect competition may produce a lower output compared to a firm in Perfect Competition.
- **Inefficiency/Wasteful of resources**
  - Monopolies not producing at the lowest point of the AC curve results in waste of scarce resources. Due to lack of competition the quality of service provided may be poor.
- **Lack of innovation**
  - The lack of competition means that a Monopolist does not have to innovate or develop new products or services.
- **Loss making state monopolies**
  - If the monopoly is state run and is loss making e.g. CIE then these losses are borne by the taxpayers in the form of higher taxes.

Regulating Markets:

Competition and Consumer Protection Commission

- **Role of the Competition and Consumer Protection Commission in relation to maintaining competitiveness:**
    - Carry out Market Studies to assess competition in a particular sector of the economy and recommend ways of improving it so that consumers benefit.
    - Give advice to Government Departments, public authorities and other State bodies on the implications for competition of proposed and existing laws, regulations, and policies.
    - Publish guidance on how to comply with competition law, and information booklets which provide general information on the role competition law and policy play in the economy and what to do if you suspect a breach of competition law.

The Commission also carries out the following duties:

- **Oversees Mergers**
    - Mergers are a mechanism used by businesses to restructure in order to compete and prosper. However, some mergers can have a negative effect on consumer welfare by, for example, leading to an increase in price or a reduction in output. That is, they substantially lessen competition and, as a result, consumers (including businesses) suffer. Mergers over a certain financial threshold must be notified to the Competition and Consumer Protection Commission

- **Investigates Cartels**
    - Hardcore cartels (price-fixing, restricting output/limiting production, bid-rigging and customer or market allocation) are among the most serious breaches of competition law and are always pursued in the criminal courts. Businesses and individuals who are found guilty of hardcore cartel offences can face a number of penalties, including fines and prison sentences.

EU Commission

The EU has **strict rules protecting free competition**. Under these rules, certain practices are prohibited.

If your company has a large market share, it holds a dominant position and must take particular care not to:

- charge **unreasonably high prices** which would exploit customers
- charge **unrealistically low prices** which may drive competitors out of the market
- **discriminate** between customers
- force certain **trading conditions** on your business partners

- **Why are mergers examined at the European level?**
  - While companies combining forces (referred to below as mergers) can expand markets and bring benefits to the economy, **some mergers may reduce competition in a market**, usually by creating or strengthening a dominant player.
  - This is likely to harm consumers through higher prices, reduced choice or less innovation
  - The objective of examining proposed mergers is to prevent harmful effects on competition.
  - Mergers going beyond the national borders of any one Member State are examined at European level.
- **Which mergers are examined by the European Commission?**
  - If the annual turnover of the combined businesses exceeds specified thresholds in terms of global and European sales, the proposed merger must be notified to the European Commission, which must examine it. Below these thresholds, the national competition authorities in the EU Member States may review the merger.
  - The European Commission may also examine mergers which are referred to it from the national competition authorities of the EU Member States

- **When are mergers prohibited or approved?**
  - All proposed mergers notified to the Commission are examined to see if they would significantly impede effective competition in the EU. If they do not, they are approved unconditionally.
  - If they do, and no commitments aimed at removing the impediment are proposed by the merging firms, they must be prohibited to protect businesses and consumers from higher prices or a more limited choice of goods or services.
  - Proposed mergers may be prohibited, for example, if the merging parties are major competitors or if the merger would otherwise significantly weaken effective competition in the market, in particular by creating or strengthening a dominant player.

- **When does the European Commission approve mergers conditionally?**
  - However, not all mergers which significantly impede competition are prohibited. Even if the European Commission finds that a proposed merger could distort competition, the parties may commit to taking action to try to correct this likely effect. They may commit, for example, to **sell part of the combined business or to license technology** to another market player. If the European Commission is satisfied that the commitments would maintain or restore competition in the market, thereby protecting consumer interests, it gives conditional clearance for the merger to go ahead. It then monitors

whether the merging companies fulfil their commitments and may intervene if they do not.

See article here re: Ryanair

See article here re: Google

Monopoly versus Perfect Competition

- **Efficiency**
  - The monopolist makes inefficient use of society's scarce resources as it does not produce at the lowest point on the AC curve. The firm in the perfectly competitive market produces at the lowest point on the AC curve
- **Price**
  - The monopolist charges a higher price than the perfectly competitive firm.
  - In monopoly the price is greater than the AC whereas in perfect competition the price equals AC.
- **Barriers to Entry**
  - In a monopoly barriers to entry do exist. Firms cannot enter as they may face cost barriers /government regulation which prohibits free entry. In a perfectly competitive market no barriers to entry exist. Because there is free entry and exit into the industry. In a perfectly.
- **Profits**
  - SNPs are earned by the monopolist (AR>AC) whereas NPs are earned by perfectly competitive markets (AR=AC)
- **Demand Curve**
  - A monopolist faces a downward sloping demand curve while a perfectly competitive firm face a perfectly elastic (horizontal) demand curve
- **Economies of Scale**
  - Monopolies may benefit from E/S. As there is only one firm in the industry they can expand and may benefit from E/S. Perfectly competitive firms tend not to benefit from E/S. Because they produce only a small fraction of total output they cannot achieve E/S.
- **Price Discrimination**
  - A monopolist could practise price discrimination. It has monopoly power or has control over the price charged or output produced and so can charge different prices to different consumers for the same good. Whereas a firm in perfect competition cannot practise price discrimination. The firm does not have control over the price it charges because it must accept the market price.