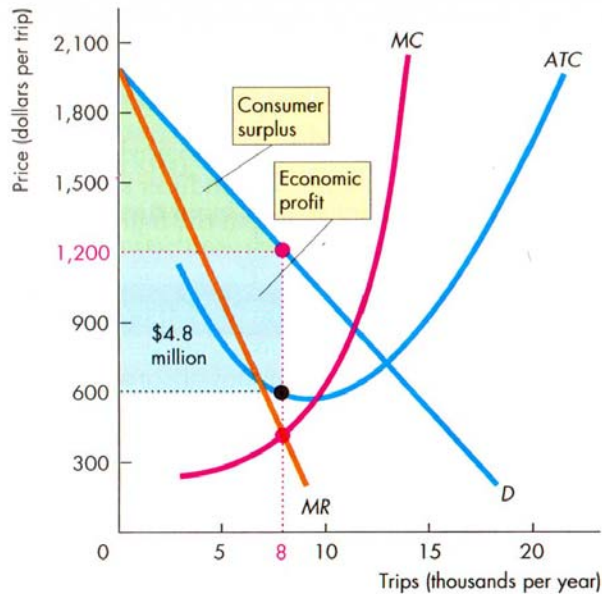


Chapter 23 – Monopoly

- Market power** – the ability to influence the market, and in particular the market price, by influencing the total quantity offered for sale. Perfect competition firms have no market power
- Monopoly** – industry that produces a good or service for which no close substitutes exist and in which there is one supplier that is protected from competition by a barrier preventing the entry of new firms. Monopolies face no competition and have full market power
- No Close Substitutes** – anything that's a close substitute provides competition. Water has no close substitutes, hence many local utilities are monopolies. FedEx and UPS have weakened the USPS monopoly, while satellite has weakened the monopoly of cable and TV companies
- Barriers to Entry** – preventing other companies from entering. De Beers controls 80% of the natural supply of diamonds, which serves as a barrier to entry
 - Legal Monopoly** – competition and entry are restricted by the granting of a public franchise, government license, patent, or copyright
 - Public Franchise** – exclusive right granted to a firm to produce a good or service. Think USPS
 - Government License** – controls entry into certain occupations/industries, ie Law, Medicine, etc
 - Patent** – exclusive right granted to an inventor of a product or service. They encourage invention and innovation, the implementation of inventions
 - Copyright** – exclusive right granted to the author or composer of a literary, musical, dramatic, or artistic work
 - Natural Monopolies** – one firm can supply the entire market at a lower price than two or more firms can
 - In economies of scale, when cost decreases as output increases, it's cheaper for one company to supply the entire market than for 3 companies to supply 1/3 of the market each, since on average it costs more to produce less. This is true in many utilities (electricity, gas)
- Price Discrimination** – the practice of selling different units of a good or service for different prices. Airlines sell the same seats for many different prices, pizza prices usually change for the 2nd or 3rd pizza. Note that most companies that do this are not monopolies, and are not doing customers a favor, they're simply selling the most units at the highest possible price in order to maximize profits. Monopolies are careful about price discrimination because of people who buy at a lower price and resell at a higher price, and are usually limited to service that cannot be resold
- Single Price** – monopolies that sell at a single price to prevent reselling
 - Since the monopoly is the only company in the industry, the industry demand is the company's demand
 - The demand is a normal demand curve, the total revenue is the quantity * price, MR is the derivative of the TR
 - When price is lowered, the increased quantity increases TR, while the price decreases it.
 - The total revenue is at a max when the marginal revenue is 0 (the TR is at a max when it's derivative, the $MR = 0$)
 - When marginal revenue is positive, the demand is elastic (elasticity of demand > 1 , 1% fall in price brings greater than a 1% increase in quantity demanded), when the marginal revenue is 0, the demand is unit elastic (1% fall in price brings a 1% increase in quantity demanded), and when the marginal revenue is < 0 , demand is inelastic (1% fall in price brings less than a 1% increase in quantity demanded)
 - A monopoly never operates in the inelastic portion, or else it could just raise the price, lower the output, and make more money**
 - A monopoly's profit maximizing point is the same as a normal company – when $MC = MR$. However, unlike perfect competition, the demand/price is no longer the MR. In fact, it ALWAYS exceeds the MR, meaning it's also higher than the marginal cost. The profit occurs between the Demand and ATC curves. If the ATC is below the Demand curve at the quantity $MR = MC$, then the monopoly makes a profit. However, unlike perfect competition, new firms cannot enter, and hence the monopoly continues making the profit.
 - If the average fixed cost, such as rent, changes, the monopoly can become unprofitable, and could go out of business, since changing the fixed cost doesn't change the profit max point where $MC = MR$. The MC of producing one additional unit is the same regardless of the rent
- Single Priced Monopoly VS Perfect Competition**
 - In perfect competition, $supply = MC = MR = Price$. In monopoly, $supply = MC = MR$, lower than demand, price is higher than in perfect competition, quantity is lower
 - Monopolies restrict output level and are inefficient. The monopoly gains part of the consumer surplus, but still suffers a deadweight loss/social loss. However, it makes more money.
 - The monopoly redistributes the surpluses. It takes some of the consumer surplus and makes it the producer surplus, also known as **rent seeking**
- Buy a monopoly** – people would buy a monopoly that is for sale at a lower price than the monopoly's economic profit. For example, in cities where taxis are regulated, someone who wants to operate one must buy a license from someone who already has a license. However, the time they spend looking for a deal is part of the cost

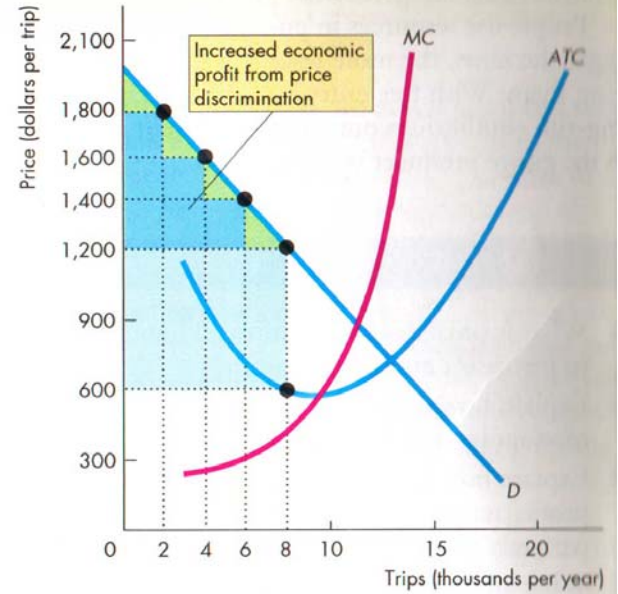
9. **Creating a monopoly** – rent seeking by creating a monopoly usually requires political lobbying or contributions, something to get the government to regulate what it is you're trying to sell. Example: the government limits the number of oranges sold, which limits output, which raises the price. In fact, lots of people spend lots of money rent seeking in an attempt to gain monopoly rights, hence rent seeking is a highly competitive "market"
10. Monopolies aren't all over the place because the cost of rent seeking eliminates the profit. In the example of taxi cab drivers, if a license costs as much as the economic profit, then the profit is 0 (normal profit), hence there's no point to establish a monopoly. This is known as the **rent seeking equilibrium**
11. **Price Discrimination** – Charging different amounts because of different buyer's willingness to pay for it, NOT differences in production costs. The goal is to turn consumer surplus into economic profit
 - a. To price discriminate, a monopoly must identify and separate different buyer types and sell a product that cannot be resold
 - b. Examples: lower wholesale prices, charging business flights more than vacation flights

FIGURE 12.8 A Single Price of Air Travel



Global Airlines has a monopoly on an air route. The market demand curve is D and marginal revenue curve is MR . Global Air's marginal cost curve is MC and its average total cost curve is ATC . As a single-price monopoly, Global maximizes profit by selling 8,000 trips a year at \$1,200 a trip. Its profit is \$4.8 million a year — the blue rectangle. Global's customers enjoy a consumer surplus — the green triangle.

FIGURE 12.9 Price Discrimination



Global revises its fare structure: no restrictions at \$1,800, 7-day advance purchase at \$1,600, 14-day advance purchase at \$1,400, and must stay over a weekend at \$1,200. Global sells 2,000 trips at each of its four new fares. Its economic profit increases by \$2.4 million a year to \$7.2 million a year, which is shown by the original blue rectangle plus the blue steps. Global's customers' consumer surplus shrinks.

- c.
- d. **Perfect Price Discrimination** – charging everyone exactly how much they would pay, consumer surplus = 0, Marginal revenue = demand. When firms cut prices to sell a larger quantity, only the marginal unit is sold at the lower price, so $MR = price = Demand$

12. Efficiency and Rent Seeking w/ price discrimination

- a. w/ price discrimination, output increase so that price = marginal cost (since demand = MR), hence the more perfectly the monopoly can price discriminate, the closer its output gets to the competitive output and the more efficient is the outcome
- b. When price discrimination is perfect, the deadweight loss is 0, and all consumer surplus goes to the producer.
- c. Monopolies are inefficient since no price discrimination scheme is ever perfect

13. Gains from Monopoly

- a. **Incentives to innovation** – Monopolies protect innovators' profits, giving people more incentive to innovate. However, after the innovation has been implemented, monopolies can be lazy and overcharge, while competitive businesses cannot, so it might hinder future innovation. Hence, the verdict is mixed. However, large corporations have more capital and can implement and distribute new technology faster than smaller ones, so they're better at diffusing technological change into an industry
- b. **Economies of Scale** – when greater output brings a lower ATC
- c. **Economies of Scope** – when greater range of goods produced brings a lower ATC
- d. These two factors tend to lead to monopolies, but are becoming rarer.

- e. It is even possible that a monopoly can produce MORE than what a bunch of smaller firms can produce, especially for economies of scale and scope

14. Regulating Monopolies

- a. w/o regulations, monopolies maximize profits at the expense of consumers and are inefficient
- b. **Marginal cost pricing rule** – setting marginal cost = demand, maximizes total surplus, lowers prices, and is efficient. However, it results in a loss for the monopoly. It makes up for it by either price discriminating, charging a base cost to cover its fixed costs, or from government subsidies. However, the government subsidies themselves create deadweight losses, and this must be taken into account when calculating total efficiency
- c. **Average Pricing Rule** – setting price = average cost in order to let the monopoly gain a normal profit – the compromise