Chapter 15: Monopoly

(Lecture Outline)

- Monopolies have no close competitors and, therefore, can influence the market price of its product—making a monopoly firm a price maker
- Although monopolies can control the prices of their goods, their profits are not unlimited

I. Why Monopolies Arise
   A. A firm is considered a monopoly if...
      i. It is the sole seller of its product
      ii. Its product does not have close substitutes
   B. The fundamental cause of monopoly is barriers to entry—a monopoly remains the only seller in its market b/c other firms cannot enter the market and compete with it
   C. Barriers to entry have three sources:
      i. Ownership of a key resource
      ii. The government gives a single firm the exclusive right to produce some good
      iii. Costs of production make a single producer more efficient than a large number of producers
   D. Monopoly Resources
      i. Single firm owns a key resource
      ii. Although exclusive ownership of a key resource is a potential source of monopoly, in practice monopolies rarely arise for this reason
      iii. Natural scope of market is often worldwide w/ large economies and resources owned by many people
   E. How much market power one firm has depends on the number of close substitutes for its product
   F. Government-Created Monopolies
      i. Governments may restrict entry by giving a single firm the exclusive right to sell a particular good in certain markets
      ii. Patent and copyright laws are two important examples of how government creates a monopoly to serve the public interest
         - B/c these laws give one producer a monopoly, leads to higher prices
         - Benefits of these laws—increased incentive for creative activity
         - Costs of these laws—high pricing
   G. Natural Monopolies
      i. An industry is a natural monopoly when a single firm can supply a good or service to an entire market at a smaller cost than could two or more firms
      ii. Arises when there are economies of scale over the relevant range of output
      iii. Average total cost is lowest if a single firm serves the entire market
      iv. Less concerned about new entrants eroding its monopoly power
      v. As market expands, a natural monopoly can evolve into a competitive market

II. How Monopolies Make Production and Pricing Decisions
   A. Monopoly verses Competition
      i. Monopoly
         - Is a sole producer
         - Faces a downward-sloping demand curve
         - Is a price maker
• Reduces price to increase sale

ii. Competitive Firm
   • Is one of many producers
   • Faces a horizontal demand curve (market demand curve)
   • Is a price taker
   • Sells as much or as little at same price

B. A Monopoly’s Revenue
   i. Total Revenue \((TR) = P \times Q\)
   ii. Average Revenue \((AR) = TR/Q = P\)
   iii. Marginal Revenue \((MR) = \Delta TR/\Delta Q\)
      - Monopolist’s marginal revenue always less than the price of its good
         a. Demand curve is downward sloping
         b. When a monopoly drops the price to sell one more unit, the revenue received from previously sold units also decreases
      - When a monopoly increases the amount it sells, it has two effects on total revenue \((P \times Q)\)
         a. The output effect—more output is sold, so \(Q\) is higher
         b. The price effect—price falls, so \(P\) is lower
      - Thus, monopoly’s marginal-revenue curve lies below demand curve
      - Marginal revenue can even become negative—when price effect on revenue is greater than output effect

C. Profit Maximization
   i. A monopoly maximizes profit by producing the quantity at which marginal revenue equals marginal cost
   ii. It uses the demand curve to find the price that will induce consumers to buy that quantity
   iii. Comparing monopoly and competition
      - For a competitive firm, price equals marginal cost \((P = MR = MC)\)
      - For a monopoly firm, price exceeds marginal cost \((P > MR = MC)\)

D. A Monopoly’s Profit
   i. Profit \((P) = \text{Total Revenue} (TR) – \text{Total Cost} (TC)\)
   ii. Profit \((P) = (TR/Q – TC/Q) \times Q\)
   iii. Profit \((P) = (P – ATC) \times Q\)
iv. The monopolist will receive economic profits as long as price is greater than the average total cost

III. The Welfare Cost of Monopoly
A. In contrast to a competitive firm, the monopoly charges a price above marginal cost
B. Form a standpoint of consumers, this high price makes monopoly undesirable
C. However, from the standpoint of the owners of the firm, the high price makes monopoly very desirable
D. Monopolies fail to maximize total economic well-being
E. The Deadweight Loss
   i. Because a monopoly sets its price above marginal cost, it places a wedge between the consumer’s willingness to pay and the producer’s cost
      • This wedge causes quantity sold to fall short of the social optimum
   ii. The Inefficiency of Monopoly
      • Monopolist produces less than the socially efficient quantity of output
   iii. The deadweight loss caused by a monopoly is similar to the deadweight loss caused by a tax
   iv. The difference between the two cases is that the government gets the revenue from a tax, whereas a private firm gets the monopoly profit
F. Monopoly profit itself *does not* represent a shrinkage in the *size* of the *economic pie*; it merely represents a *bigger slice* for producers and a *smaller slice* for consumers

G. Problem stems from the *inefficiently low quantity* of output

IV. **Public Policy Towards Monopolies**

A. Government responds to the problem of monopoly in one of **four** ways:
   i. Making monopolized industries more competitive
   ii. Regulating the behavior of monopolies
   iii. Turning some private monopolies into public enterprises
   iv. Doing nothing at all

B. **Increasing Competition with Antitrust Laws**
   i. Antitrust laws are a collection of statutes aimed at curbing monopoly power
   ii. Antitrust laws give government various ways to promote competition
      - They allow government to prevent mergers
      - They allow government to break up companies
      - They prevent companies from performing activities that make market less competitive
   iii. Government must be able to measure and compare the *social benefit* from synergies (more efficient joint production) to the *social costs* of reduced competition
   iv. Two Important Antitrust Laws
      - Sherman Antitrust Act (1890)—reduced the market power of the large and powerful “trusts” of that time period
      - Clayton Act (1914)—strengthened the government’s powers and authorized private lawsuits

C. **Regulation**
   i. Government may regulate the prices that the monopoly charges
      - The allocation of resources will be efficient if price is set to equal marginal cost
   ii. In practice, regulators will allow monopolists to keep some of the benefits from lower costs in the form of higher profit, a practice that requires some departure from marginal-cost pricing

D. **Public Ownership**
   i. Rather than regulating a natural monopoly that is run by a private firm, the government can run the monopoly itself (for example: the Postal Service)
   ii. As a way of ensuring that firms are well run, the voting booth is less reliable than the profit motive

E. **Doing Nothing**
   i. Government can do nothing at all if the market failure is deemed *small* compared to the imperfection of public policies

V. **Price Discrimination**

A. Is a business practice of selling the *same good* at *different prices* to *different customers*, even though the *costs for producing* for the two customers are the *same*

B. *Not possible* when a good sold in a *competitive market* since there are many firms all selling at the market price

C. In order to price discriminate, the firm must have some *market power*
D. **Perfect Price Discrimination**—refers to the situation when the monopolist knows exactly the willingness to pay of each consumer and can charge each customer a different price

E. Two important effects of price discrimination:
   i. It can increase the monopolist’s profits
   ii. It can reduce deadweight loss

![Diagram showing Monopolist with Single Price and Monopolist with Perfect Price Discrimination](image)

F. **Examples of Price Discrimination**
   i. Movie tickets
   ii. Airplane prices
   iii. Discount coupons
   iv. Financial aid
   v. Quantity discounts

VI. **Conclusion: The Prevalence of Monopoly**
   A. Monopolies are common
   B. Most firms have some control over their prices because of differentiated products
   C. Firms with substantial monopoly power are rare
   D. Few goods are truly unique