Chapter 9

Monopoly

This chapter provides some insight into how monopolists operate. Additionally, time is spent discussing the welfare losses associated with some monopolies as well as the welfare gains when a natural monopoly is present.

- Pure Monopoly assumptions
  - Only one producer in a market
  - No close substitutes
  - Entry of new firms is blocked (e.g., patents, scale, secret formulas)
- examples: USPS, Amtrak, public utility companies

9.1 Price and Output Under Monopoly

1. Output
   - As under perfect competition, producers maximize profits where $MR = MC$
   - Tend to operate on the elastic portion of the demand curve

- No consistent or linear supply curve

[Insert Exhibit 10.1 here]

2. Price
   - Monopolist can sell the optimal output quantity ($MR = MC$) at point on demand curve
   - MR curce lies everywhere below the demand curve
3. Lerner Index
   - Measuring monopoly pricing power

$$LI = \frac{P - MC}{P} = \frac{P - P\left(1 - \frac{1}{|\eta|}\right)}{P} = \frac{1}{|\eta|} \tag{9.1}$$

4. Sources of Monopoly Power
   - Natural monopoly
     - industry where AC curve decreasing at point where crosses market demand
     - Industry survives only if monopolized
   - Patents (e.g., biotech, pharmaceuticals, etc.)
   - Resource monopolies - single firm controls productive input
   - Legal barriers to entry
   - Government granted
     - may be welfare improving
     - USPS, Xanterra (Yellowstone), utility companies

[Insert Exhibit 10.6 here] - natural monopoly

5. Welfare

    - Social welfare is typically lost when comparing Monopolist to perfectly competitive market
    - Deadweight loss (net loss to society)
    - Consumer surplus falls
    - Producer surplus increases

    [Insert Exhibit 10.2 here]

6. Subsidies and Public Policy

    - Subsidies can be provided so that monopolist provides price and quantity as in perfectly competitive market

    [Insert Exhibit 10.3 here]

7. Price Discrimination

    - First-degree - Charging each customer the most they are willing to pay
        - Typically a fair bit of haggling is involved
        - Examples: ticket scalping, used car sales
    - Second-degree - Charging same customer different prices for identical items
        - quantity discounts for energy, discounts for larger sized boxes of cereal, sodas and french fries at fast food
    - Third-degree - Charging different prices in different market segments
        - Must be able to discriminate consumers into homogenous subgroups

- Examples: senior discounts, student discounts, etc.
- More elastic demand group receives lower price