Monopoly

Chapter 15

While a competitive firm is a price taker, a monopoly firm is a price maker.

A firm is considered a monopoly if . . .

…it is the sole seller of its product.

…it product does not have close substitutes.
Why Monopolies Arise

The fundamental cause of monopoly is **barriers to entry**.

Barriers to entry have three sources:

- Ownership of a key resource.
  - This tends to be rare. De Beers is an example

- The government gives a single firm the exclusive right to produce some good.
  - Patents, Copyrights and Government Licensing.

- Costs of production make a single producer more efficient than a large number of producers.
  - Natural Monopolies

Economies of Scale as a Cause of Monopoly...

![Graph showing economies of scale](image)
Monopoly versus Competition

Monopoly
- Is the sole producer
- Has a downward-sloping demand curve
- Is a price maker
- Reduces price to increase sales

Competitive Firm
- Is one of many producers
- Has a horizontal demand curve
- Is a price taker
- Sells as much or as little at same price

Demand Curves for Competitive and Monopoly Firms...

A Monopoly’s Revenue
- Total Revenue
  \[ P \times Q = TR \]
- Average Revenue
  \[ \frac{TR}{Q} = AR = P \]
- Marginal Revenue
  \[ \frac{\Delta TR}{\Delta Q} = MR \]
A Monopoly’s Marginal Revenue

A monopolist’s marginal revenue is always less than the price of its good.
- The demand curve is downward sloping.
- When a monopoly drops the price to sell one more unit, the revenue received from previously sold units also decreases.

A Monopoly’s Total, Average, and Marginal Revenue

<table>
<thead>
<tr>
<th>Quantity (Q)</th>
<th>Price (P)</th>
<th>Total Revenue (TR=P*Q)</th>
<th>Average Revenue (AR=TR/Q)</th>
<th>Marginal Revenue (MR=ΔTR/ΔQ)</th>
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</table>

A Monopoly’s Marginal Revenue

When a monopoly increases the amount it sells, it has two effects on total revenue (P x Q).
- The output effect—more output is sold, so Q is higher.
- The price effect—price falls, so P is lower.
Demand and Marginal Revenue Curves for a Monopoly...

Profit-Maximization for a Monopoly...

Comparing Monopoly and Competition

- For a competitive firm, price equals marginal cost.
  \[ P = MR = MC \]
- For a monopoly firm, price exceeds marginal cost.
  \[ P > MR = MC \]
A Monopoly's Profit

Profit equals total revenue minus total costs.

Profit = TR - TC
Profit = (TR/Q - TC/Q) x Q
Profit = (P - ATC) x Q

The Monopolist's Profit...

The monopolist will receive economic profits as long as price is greater than average total cost.
Public Policy Toward Monopolies

Government responds to the problem of monopoly in one of four ways.
- Making monopolized industries more competitive.
- Regulating the behavior of monopolies.
- Turning some private monopolies into public enterprises.
- Doing nothing at all.

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.

Marginal-Cost Pricing for a Natural Monopoly...
Price Discrimination

Price discrimination is the 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. In order to do this, the firm must have market power.

Price Discrimination

- Two important effects of price discrimination:
  - It can increase the monopolist’s profits.
  - It can reduce deadweight loss.
- But in order to price discriminate, the firm must
  - Be able to separate the customers on the basis of willingness to pay.
  - Prevent the customers from reselling the product.