Monopoly

Chapter 15

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

A Monopoly's Revenue

- **Total Revenue**
  \[ P \times Q = TR \]
- **Average Revenue**
  \[ TR/Q = AR = P \]
- **Marginal Revenue**
  \[ \Delta TR/\Delta Q = MR \]
### A Monopoly's Total, Average, and Marginal Revenue

<table>
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<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=∆TR/∆Q)</th>
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### 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 Marginal Revenue

When a monopoly increases the amount it sells, it has two effects on total revenue (P × 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

![Demand and Marginal Revenue Curves](image-url)
Profit Maximization of a Monopoly

- A monopoly maximizes profit by producing the quantity at which marginal revenue equals marginal cost.
- It then uses the demand curve to find the price that will induce consumers to buy that quantity.

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.

The Market for Drugs

In contrast to a competitive firm, the monopoly charges a price above the marginal cost. From the standpoint of consumers, this high price makes monopoly undesirable. However, from the standpoint of the owners of the firm, the high price makes monopoly very desirable.
**The Efficient Level of Output**

- Value to buyers is greater than cost to seller.
- Value to buyers is less than cost to seller.

**The Deadweight Loss**

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 the quantity sold to fall short of the social optimum.

**The Inefficiency of Monopoly**

- The monopolist produces less than the socially efficient quantity of output.
The Deadweight Loss

- The deadweight loss caused by a monopoly is similar to the deadweight loss caused by a tax.
- The difference between the two cases is that the government gets the revenue from a tax, whereas a private firm gets the monopoly profit.

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.

Perfect Price Discrimination

**Perfect price discrimination** refers to the situation when the monopolist knows exactly the willingness to pay of each customer and can charge each customer a different price.

Price Discrimination

- Two important effects of price discrimination:
  - It can increase the monopolist’s profits.
  - It can reduce deadweight loss.
Price discrimination

Welfare Without Price Discrimination...

Welfare With Price Discrimination...

Examples of Price Discrimination

- Movie tickets
- Airline prices
- Discount coupons
- Financial aid
- Quantity discounts