

**Chapter 15: Monopoly**

- Why do monopolies arise?
- Why is  $MR < P$  for a monopolist?
- How do monopolies choose their  $P$  and  $Q$ ?
- How do monopolies affect society's well-being?
- What can the government do about monopolies?
- What is price discrimination?

**DEF: MONOPOLY**

The key difference:

**Why Monopolies arise?** 3 sources of barriers to entry

**A. Monopoly Resources**

E.g., DeBeers

**B. Government-Created Monopolies**

Government issues patents giving firms exclusive right to produce a product for a certain period of time.

**C. Natural Monopolies**

Natural monopolies occur when ATC is falling.

**Monopoly vs. Competition: Demand Curve**

Competitive market (single firm vs. market)

Monopoly

**How Monopolies Make Production and Pricing Decisions**

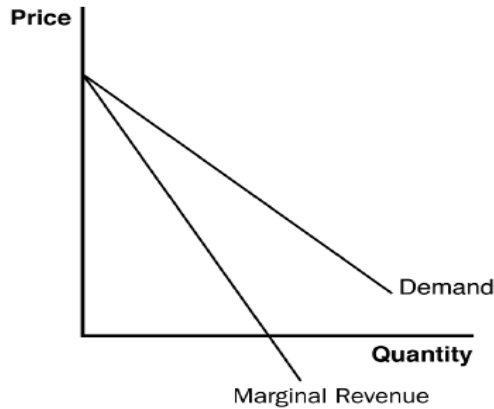
**ACTIVE LEARNING 1**  
**A monopoly's revenue**

Common Grounds is the only seller of cappuccinos in town. The table shows the market demand for cappuccinos. Fill in the missing spaces of the table. What is the relation between  $P$  and  $AR$ ? Between  $P$  and  $MR$ ?

Q	P	TR	AR	MR
0	\$4.50		n.a.	
1	4.00			
2	3.50			
3	3.00			
4	2.50			
5	2.00			
6	1.50			

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Compare with competitive firm!

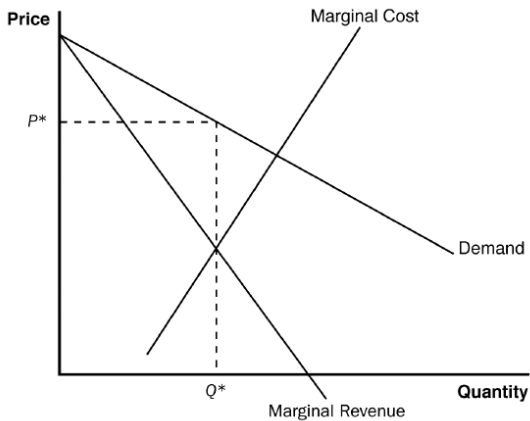


Understanding the Monopolist's MR

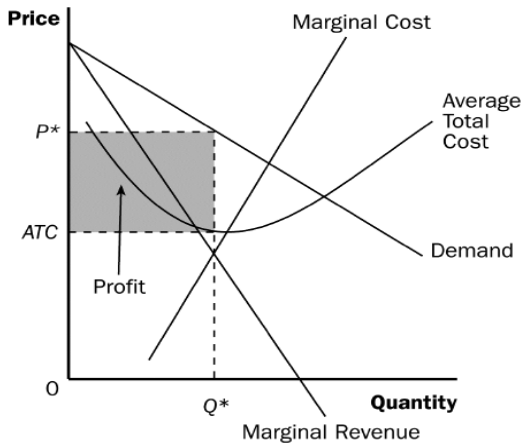
- A monopolist's marginal revenue is always less than the price of its good.
- There are two effects on Total Revenue as a monopoly increases the amount it sells.
  - **The \_\_\_\_\_ effect:** more output is sold, so Q is higher.
  - **The \_\_\_\_\_ effect:** To sell more output, P must fall, so P is lower.
- The price effect results in declining marginal revenue.

Profit Maximization (MR = MC)

1. The profit-maximizing Q is where MR = MC.
2. Find P from the demand curve at this Q.



- **A Monopoly's Profit:** As with a competitive firm, the monopolist's profit =  $(P - ATC) * Q$

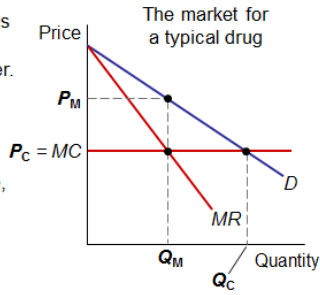


A monopoly firm

**CASE STUDY: Monopoly vs. Generic Drugs**

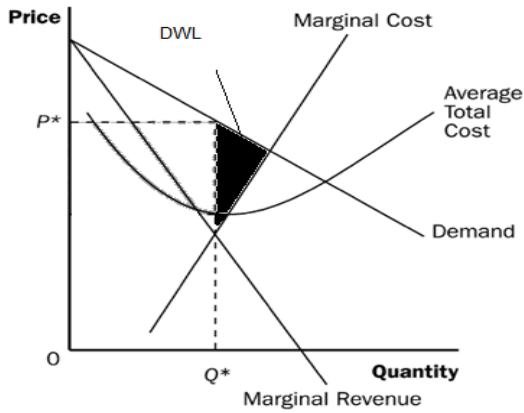
Patents on new drugs give a temporary monopoly to the seller.

When the patent expires, the market becomes competitive, generics appear.



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**The Welfare Cost of Monopoly**



**Price Discrimination**

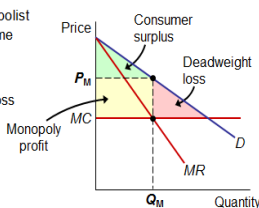
**DEF: PRICE DISCRIMINATION**

The characteristic used in price discrimination is willingness to pay (WTP)

**Perfect Price Discrimination vs. Single Price Monopoly**

Here, the monopolist charges the same price ( $P_M$ ) to all buyers.

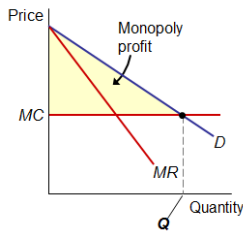
A deadweight loss results.



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### Perfect Price Discrimination vs. Single Price Monopoly

Here, the monopolist produces the competitive quantity, but charges each buyer his or her WTP. This is called **perfect price discrimination**. The monopolist captures all CS as profit. But there's no DWL.



Examples of price discrimination:

## Public Policy Towards Monopolies

- Policy makers can respond by:
  1. Increasing Competition with Antitrust Laws  
(Sherman Act 1890 & Clayton Antitrust Act 1914)
    - Antitrust laws allow government to prevent mergers, break up monopolies, prevents collusion.
    - Example: Whole Foods and Wild Oats, AT&T in 1984 into smaller companies, Microsoft 1998
    - Costs of antitrust laws: Some mergers to lower costs, not to gain power.
  2. Regulation
    - Government may regulate the prices that the monopoly charges.
    - Common with natural monopolies
    - Problem: ATC decreasing, then  $MC < ATC$ , so can't set  $P=MC$  because loss.
    - Monopoly would exit the industry.
  3. Public Ownership
    - Rather than regulating a natural monopoly that is run by a private firm, the government may run the monopoly itself.
    - Common in Europe: water, electric, telephone
    - USA: Postal Service
  4. Doing Nothing
    - "The degree of market failure for the American economy is much smaller than the political failure arising from the imperfections of economic policies found in real political systems."
    - George Stigler – Nobel Prize
    - There are problems when politics gets involved with economics.

**Suggested problems: Problems and Applications- 5, 6**