Lesson 9: Monopolies and Oligopolies
Reading: Chapter 23

In this lesson we will:
- Explain why monopolies exist and how they operate
- Discuss examples of oligopolies and what makes collusion difficult
- Examine ways in which the government affect the competitiveness of markets

Reasons why barriers of entry can be high:
- Economies of scale may make it difficult for new, small entrants to compete (why?)
- Government licensing can restrict new entries (why do governments issue licenses?)
- Patents grant exclusive rights to produce new innovations for 17 years (why are patents necessary in our economy?)
- Control of essential resources by few or one firm (such as bauxite for aluminum)

Monopoly: A single seller of a product that has no close substitutes.
- Even when no close substitutes exist one may be created in the future and monopolies must still compete with other goods in the consumers’ budget.
- Monopolies may occur when the government gives exclusive rights to one firm
- A monopoly will produce where MR = MC (not the highest price). However, unlike a monopolistic competitor, a monopoly can make profit in the long run.

Oligopoly: A market that is controlled by a few, large sellers. Examples?
- Oligopolies either have high barriers to entry or control over resources.
- Firms’ behavior is highly interdependent. What will happen if one firm incr. price?
- Price of oligopolies can be anywhere between the competitive price (where D intersects LRAC and the monopoly price (where MR intersects MC). See figure 9-1.
- To achieve the monopoly price, firms must form a cartel, such as OPEC.

Figure 9-1: Cartel

If the firms in figure 9-1 collude they would produce where MR = LATC, charge price \( P^M \) and will maximize total profit in the long run. Although, there may be some conflicts as to how the profit is shared.

Intense competition will cause the firms to increase production to \( Q^C \) and charge \( P^C \), thus not making any profit.
Collusion Amongst Firms:
- Collusion can lead to higher profits, but firms have the incentive to cheat *(why?)*
- A high number of firms, lack of ability to monitor, potential for new entrants (such as increase production by 30% by non-OPEC members in 1985), unstable demand and antitrust actions can all make collusion difficult.

Collusion can be modeled using a *prisoner dilemma* game as shown in table 9-1.

<table>
<thead>
<tr>
<th>Player 2</th>
<th>Player 1</th>
<th>Cooperate</th>
<th>Defect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooperate</td>
<td>(4, 4)</td>
<td>(6, 0)</td>
<td></td>
</tr>
<tr>
<td>Defect</td>
<td>(0, 6)</td>
<td>(2, 2)</td>
<td></td>
</tr>
</tbody>
</table>

The first number represents player 1’s payoff and the second represent player 2’s payoff from each set of actions (cooperate or defect). *What will each player do?*

**Market Power:** the ability of firms to charge above competitive prices.
- High barriers to entry reduce production, consumers’ choices, consumer surplus *(show this on a graph)* and allow firms to produce inferior products.
- When governments grant licensing rights it may lead to *rent seeking* behavior.

Governments often regulate monopolies and oligopolies:
- The U.S. Dept. of Justice may break *trusts* under the Sherman Antitrust Law
- In some cases monopolies are *natural* (resulting from industry-wide economies)
- Licensing, patents and barriers to trade all reduce domestic and foreign competition
- Governments can regulate pricing to improve allocation: by putting a ceiling on price where $D = LRAC$ or, if $MC$ intersect demand below that point, where $D = MC$

**What makes regulations difficult?**
- Lack of information and constant changing supply and demand *(electricity in CA?)*
- Firms do not have incentive to reduce cost, and in fact may increase cost *(why?)*
- Special interest and rent seeking behavior will influence regulators *(how do firms influence regulators in the US and what allows them to do so?)*
- Cooperatives such as the Tennessee Valley Authority and HTC may not have sufficient incentive to reduce cost and increase quantity