The Impact of Monopoly

OBJECTIVES

In Section 2, you will
• describe the characteristics of a monopoly
• analyze four different types of monopolies and discuss how they come about
• explain how a monopoly sets its prices and production goals

KEY TERMS

monopoly, p. 198
cartel, p. 198
price maker, p. 198
barrier to entry, p. 198
natural monopoly, p. 201
government monopoly, p. 201
technological monopoly, p. 201
geographic monopoly, p. 201
economies of scale, p. 201
patent, p. 202

TAKEING NOTES

As you read Section 2, complete a chart to show how different types of monopolies exhibit the characteristics of monopoly. Use the Graphic Organizer at Interactive Review @ ClassZone.com

<table>
<thead>
<tr>
<th>Natural Monopoly</th>
<th>One Seller</th>
<th>Restricted Market</th>
<th>Control of Prices</th>
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</thead>
<tbody>
<tr>
<td>Government Monopoly</td>
<td></td>
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<tr>
<td>Technological Monopoly</td>
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<tr>
<td>Geographic Monopoly</td>
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Characteristics of a Monopoly

KEY CONCEPTS

Perfect competition is the most competitive market structure. The least competitive is monopoly, a market structure in which only one seller sells a product for which there are no close substitutes. The term monopoly may be used for either the market structure or the monopolistic business. Pure monopolies are as rare as perfect competition, but some businesses come close. For example, a cartel is a formal organization of sellers or producers that agree to act together to set prices and limit output. In this way, a cartel may function as a monopoly.

Because a monopoly is the only seller of a product with no close substitutes, it becomes a price maker, a business that does not have to consider competitors when setting its prices. Consumers either accept the seller’s price or choose not to buy the product. Other firms may want to enter the market, but they often face a barrier to entry—something that hinders a business from entering a market. Large size, government regulations, or special resources or technology are all barriers to entry.

Let’s take a closer look at the three characteristics of monopoly through the De Beers cartel, which held a virtual monopoly on the diamond market for most of the 20th century. At one time it controlled as much as 80 percent of the market in uncut diamonds. De Beers used its monopoly power to control the price of diamonds and created barriers to entry that kept other firms from competing.
**CHARACTERISTIC 1 Only One Seller**

In a monopoly, a single business is identified with the industry because it controls the supply of a product that has no close substitutes. For example, De Beers once produced more than half of the world’s diamond supply and bought up diamonds from smaller producers to resell. In this way, it controlled the market.

**CHARACTERISTIC 2 A Restricted, Regulated Market**

In some cases, government regulations allow a single firm to control a market, such as a local electric utility. In the case of De Beers, the company worked with the South African government to ensure that any new diamond mines were required to sell their diamonds through De Beers. The company also restricted access to the market for raw diamonds for producers outside of South Africa. By controlling the supply of diamonds, De Beers made it difficult for other producers to make a profit.

**CHARACTERISTIC 3 Control of Prices**

Monopolists can control prices because there are no close substitutes for their product and they have no competition. When economic downturns reduced demand for diamonds, De Beers created artificial shortages by withholding diamonds from the market. The reduced supply allowed the cartel to continue charging a higher price.

**APPLICATION Analyzing Effects**

A. What effect did the De Beers diamond monopoly have on the price of diamonds?
OPEC: Controlling the Oil Pipelines

The Organization of the Petroleum Exporting Countries (OPEC) does not have a monopoly on oil reserves or oil production. However, the 11 member nations of the cartel possess more than two-thirds of the world’s oil reserves and produce about two-fifths of the world’s oil supply. By regulating the amount of oil that flows through its pipelines, OPEC exerts control over the market price for oil.

Market forces often counteract OPEC’s supply adjustments. For example, in the early 1980s demand for oil fell as consumers and businesses implemented strategies to reduce energy use. Despite OPEC’s efforts to reduce supply and stabilize the price, crude oil prices fell through most of the 1980s. Another factor that limits OPEC’s control over oil prices is member unity. Members sometimes choose not to follow OPEC moves to reduce oil output—because that would reduce their revenues. Despite these limitations, OPEC continues to play a major role in the world market for petroleum.

### FIGURE 7.3 OPEC MEMBERS

<table>
<thead>
<tr>
<th>Country</th>
<th>Joined OPEC</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algeria</td>
<td>1969</td>
<td>Africa</td>
</tr>
<tr>
<td>Indonesia</td>
<td>1962</td>
<td>Asia</td>
</tr>
<tr>
<td>Iran</td>
<td>1960</td>
<td>Middle East</td>
</tr>
<tr>
<td>Iraq</td>
<td>1960</td>
<td>Middle East</td>
</tr>
<tr>
<td>Kuwait</td>
<td>1960</td>
<td>Middle East</td>
</tr>
<tr>
<td>Libya</td>
<td>1962</td>
<td>Africa</td>
</tr>
<tr>
<td>Nigeria</td>
<td>1971</td>
<td>Africa</td>
</tr>
<tr>
<td>Qatar</td>
<td>1961</td>
<td>Middle East</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>1960</td>
<td>Middle East</td>
</tr>
<tr>
<td>United Arab Emirates</td>
<td>1967</td>
<td>Middle East</td>
</tr>
<tr>
<td>Venezuela</td>
<td>1960</td>
<td>South America</td>
</tr>
</tbody>
</table>

Source: OPEC

### FIGURE 7.4 OPEC Member Nations

CONNECTING ACROSS THE GLOBE

1. **Applying Economic Concepts** In what ways does OPEC act like a monopoly?

2. **Making Inferences** What will happen to OPEC’s monopolistic power as the world discovers new sources of energy? Explain your answer.
Types of Monopolies

KEY CONCEPTS

There are several reasons why monopolies exist, and not all monopolies are harmful to consumers. A natural monopoly is a market situation in which the costs of production are lowest when only one firm provides output. A government monopoly is a monopoly that exists because the government either owns and runs the business or authorizes only one producer. A technological monopoly is a monopoly that exists because the firm controls a manufacturing method, an invention, or a type of technology. A geographic monopoly is a monopoly that exists because there are no other producers or sellers within a certain region.

EXAMPLE 1 Natural Monopoly: A Water Company

In some markets, it would be inefficient to have more than one company competing for consumers’ business. Most public utilities fall into this category. Let’s look at the water company in your community as an example. It pumps the water from its source through a complex network of pipes to all the homes, businesses, and public facilities in the community. It also monitors water quality for safety and removes and treats wastewater so that it may be recycled.

It would be a waste of community resources to have several companies developing separate, complex systems in order to compete for business. A single supplier is most efficient due to economies of scale, a situation in which the average cost of production falls as the producer grows larger. The more customers the water company serves, the more efficient its operation becomes, as its high fixed costs are spread out over a large number of buyers. These economies of scale result in government support for natural monopolies. While supporting natural monopolies, the government also regulates them to ensure that they do not charge excessively high prices for their services.

EXAMPLE 2 Government Monopoly: The Postal Service

Government-run businesses provide goods and services that either could not be provided by private firms or that are not attractive to them because of insufficient profit opportunities. One of the oldest government monopolies in the United States is the U.S. Postal Service, which has the exclusive right to deliver first-class mail. Originally, only the government could provide this service in an efficient and cost-effective manner. However, new services and new technologies have been chipping away at this monopoly. Private delivery companies offer services that compete with the U.S. Postal Service. Many people now send information by fax, e-mail, and text messages. In addition, many pay their bills online.
EXAMPLE 3 Technological Monopoly: Polaroid

In 1947, Edwin Land, the founder of the Polaroid Corporation, invented the first instant camera. Land’s camera used a special type of film that allowed each picture to develop automatically in about a minute. Through a series of patents, Polaroid created a monopoly in the instant photography market.

A patent is a legal registration of an invention or a process that gives the inventor the exclusive property rights to that invention or process for a certain number of years. The government supports technological monopolies through the issuing of patents. Through patents, businesses are able to recover the costs that were involved in developing the invention or technology.

Polaroid’s control of instant photography technology through its patents was a barrier to entry for other firms. In 1985, Polaroid won a lawsuit against Eastman Kodak Company for patent infringement. The court ruled that Kodak’s instant camera and film had violated Polaroid’s property rights, which were protected by several patents. The lawsuit effectively blocked Kodak from the instant photography market.

Technological monopolies last only as long as the patent—generally 20 years—or until a new technology creates close substitutes. The rise of easier-to-use 35mm cameras, one-hour photo processing, and digital cameras all contributed to a steep decline in Polaroid’s business. While the company remains the leading seller of instant cameras and film, the technology has become a minor segment of the consumer photography market.
EXAMPLE 4 Geographic Monopoly: Professional Sports

One type of geographic monopoly in the United States is the professional sports team. The major sports leagues require that teams be associated with a city or region and limit the number of teams in each league. In other words, the leagues create a restricted market for professional sports. Most cities and towns are not directly represented by a team, so many teams draw their fans from a large surrounding geographic region. Because of their geographic monopolies, the owners of these teams are able to charge higher prices for tickets to games than if they faced competition. They also have a ready market for sports apparel and other merchandise featuring the team logo and colors.

Another type of geographic monopoly is created by physical isolation. For example, Joe operates the only gas station at an interstate exit in the middle of a desert. The next station in either direction is more than 50 miles away. Joe has a geographic monopoly because he is the only supplier of a product with no close substitutes. Drivers on the interstate in that area depend on Joe’s gas and have no other choice of supplier. They can either buy gas from Joe or risk running out of gas before they reach the next station. Because of his geographic location as the single supplier of a product that has no close substitutes, Joe is able to control the price that he charges—and gas at Joe’s is always very expensive.

Isolated locations or small communities may have other examples of geographic monopolies if the market is too small to support two similar businesses. Geographic monopolies have become less common in the United States. Cars allow people to travel greater distances to shop, and catalog marketers and Internet businesses, combined with efficient delivery companies, offer consumers more alternatives to shopping at local stores.

APPLICATION Drawing Conclusions

B. Which type of monopoly do you think is least harmful to consumers? Why?
Profit Maximization by Monopolies

**KEY CONCEPTS**

Although a monopoly firm is the only supplier in its market, the firm cannot charge any price it wishes. A monopolist still faces a downward-sloping demand curve. In other words, the monopoly will sell more at lower prices than at higher prices. The monopolist controls price by controlling supply. A monopoly produces less of a product than would be supplied in a competitive market, thereby artificially raising the equilibrium price.

It’s difficult to study this process in the real world because most countries have laws to prevent monopolies. We have to look at small instances in which a company has a monopoly over one particular specialized product. Such a limited monopoly lasts only for the life of the patent or until a competitor develops a similar product.

**EXAMPLE Drug Manufacturer**

Pharmaceutical manufacturers offer an example of how companies with limited monopolies try to maximize their profits. On average, drug patents last for about 11 years in the United States. Drug companies try to maximize their profits during that period because when the patent expires they face competition from other manufacturers who begin marketing generic versions of the drug. A generic drug contains the same ingredients and acts in the same way as the patented drug, but it is sold at much lower prices.

As an example, consider the Schering-Plough company and its antihistamine Claritin. The drug was originally approved for use as a prescription medication in the United States in 1993, although it had been patented earlier. Unlike many other such drugs, Claritin did not make users drowsy. This advantage, combined with a strong marketing campaign, led Claritin to become a top seller, making as much as $3 billion in annual worldwide sales.

When the patent on Claritin expired in 2002, numerous generic equivalents entered the market. In response, Schering-Plough lowered Claritin’s price and gained approval for a nonprescription form of the drug. But sales of Claritin fell to about $1 billion as consumers switched to less costly generic equivalents.

**APPLICATION Applying Economic Concepts**

C. Using the three characteristics of monopoly, explain what happened to the market for Claritin when its patent expired.
1. Explain the differences between the terms in each of these pairs:
   a. monopoly  b. natural monopoly  c. technological monopoly
      cartel  geographic monopoly  government monopoly

2. What is the relationship between economies of scale and a natural monopoly?

3. How does a patent awarded to one company act as a barrier to entry to another company wishing to enter the same market?

4. Why is a monopolist a price maker rather than a price taker?

5. Why do technological monopolies exist only for a limited time?

6. Using Your Notes Why is a geographic monopoly able to control the price of its product? Refer to your completed chart.

   Use the Graphic Organizer at Interactive Review @ ClassZone.com

7. Analyzing Causes and Effects Companies that produce generic drugs are not required to repeat the clinical tests that the original manufacturer of the drug is required to run before the drug receives its patent. How does this fact affect the prices of generic drugs and why?

8. Analyzing Effects A powerful monopoly is broken up into several smaller, competing companies. What are the costs and benefits for the general public?

9. Drawing Conclusions In 2003, 95 percent of the households in America had access to only one cable TV company in their area. What kind of monopoly did cable TV companies have? Explain your answer.

10. Challenge Among the drugs to fight high cholesterol, the most effective are known as statins. The drugs are similar, but each is different enough to have its own patent. In 2005, there were seven such drugs on the market. In 2006, the patents ended for two of the drugs. What effect did this have on the entire category of statin drugs, including those whose patents were still in effect through 2006? Explain why this might be the case.

Identifying Types of Monopolies

You learned in this section that there are four types of monopolies: natural, government, technological, and geographical.

What Type? The table below lists examples of several monopolies. For each example, identify the type of monopoly. Some types have more than one example.

<table>
<thead>
<tr>
<th>Example of Monopoly</th>
<th>Type of Monopoly</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. interstate highway system</td>
<td>Natural Monopoly</td>
</tr>
<tr>
<td>Electric utility company</td>
<td>Government Monopoly</td>
</tr>
<tr>
<td>The only bank in a small town</td>
<td>Technological Monopoly</td>
</tr>
<tr>
<td>The company that received a patent for the Frisbee</td>
<td>Geographic Monopoly</td>
</tr>
<tr>
<td>A city’s public transportation system</td>
<td></td>
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<tr>
<td>Natural gas company</td>
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Challenge In which type of monopoly is the government least likely to be involved? Give reasons for your answer.