Market Structures

Why It Matters

A developer has acquired the large piece of vacant land across the street from your house and plans to build a large shopping mall on the property. How might you benefit from the mall? How might it negatively impact your life? Read Chapter 7 to learn about market structures and economic growth.

The **BIG** Ideas

- **1.** The profit motive acts as an incentive for people to produce and sell goods and services.
- **2.** Economists look at a variety of factors to assess the growth and performance of a nation's economy.
- 3. Governments strive for a balance between the costs and benefits of their economic stability and growth.

economic policies to promote

Economics ONLINE Chapter Overview Visit the Economics: Principles and Practices Web site at glencoe.com and click on Chapter 7-Chapter Overviews to preview chapter information.

When many companies offer similar products, each firm tries to differentiate its goods to attract customers.

Competition and Market Structures

GUIDE TO READING

Section Preview

In this section, you will learn that market structures include perfect competition, monopolistic competition, oligopoly, and monopoly.

Content Vocabulary

- laissez-faire (p. 169)
- market structure (p. 169)
- perfect competition (p. 170)
- imperfect competition (p. 172)
- monopolistic competition (p. 173)
- product differentiation (p. 173)
- nonprice competition (p. 173)
- oligopoly (p. 174)
- collusion (p. 174)
- price-fixing (p. 175)
- monopoly (p. 175)
- natural monopoly (p. 176)

- economies of scale (p. 176)
- geographic monopoly (p. 176)
- technological monopoly (p. 176)
- government monopoly (p. 177)

Academic Vocabulary

- theoretically (p. 170)
- equate (p. 177)

Reading Strategy

Identifying As you read the section, complete a graphic organizer similar to the one below by identifying the characteristics of different market structures.

Characteristics	

ISSUES IN THE NEWS

-The Washington Post

Profits, Prices Spur Oil Outrage

Exxon Mobil Corp. reported \$8.4 billion in first-quarter profit yesterday, as members of Congress, outraged over high gasoline prices, hastened to propose measures that would boost taxes on oil firms, open new areas to drilling and provide rebates to taxpayers but would not necessarily alter prices at the pumps.

"What you have today is an oligopoly, effectively, and I think it's a disaster for the American people," said Senator Dianne Feinstein.

Federal Reserve Chairman Ben S. Bernanke cautioned Congress on the various proposals being floated. "I would like to let the market system work as much as possible to generate new supplies. . . . "

When Adam Smith published An Inquiry into the Nature and Causes of the Wealth of Nations in 1776, the average factory was small, and businesses were competitive. Laissez-faire, the French term that means "allow them to do," was the prevailing philosophy that limited government's role to protecting property, enforcing contracts, settling disputes, and protecting firms against foreign competition.

Conditions are much different today. An industry, or the supply side of the market, has many firms of different sizes producing slightly different products. These conditions help determine market structure, or the nature and degree of competition among firms doing business in the same industry. Economists group firms into four different market structures that reflect the competitive conditions in those markets.

laissez-faire

philosophy that government should not interfere with business activities

market structure

nature and degree of competition among firms in the same industry

perfect competition

market structure with many well-informed and independent buyers and sellers who exchange identical products

Perfect Competition

MAIN Idea Perfect competition is an ideal market situation used to evaluate other market structures.

Economics & You You learned earlier about industries. Read on to find out how perfect competition is the ideal market structure in an industry.

Perfect competition is a market structure characterized by a large number of well-informed independent buyers and sellers who exchange identical products. It represents a **theoretically** ideal situation that is used to evaluate other market structures. In

Perfect Competition A farmers' market comes closest to satisfying the conditions for a perfectly competitive market. **What conditions for perfect competition are met in this photograph, and how?**



order for a market to have perfect competition, it needs to meet five necessary conditions that other market structures lack.

Necessary Conditions

The first condition is that there must be a large number of buyers and sellers. No single buyer or seller is large enough or powerful enough to single-handedly affect the price.

The second condition is that buyers and sellers deal in identical products. With no difference in the products, there is no need for brand names and no need to advertise, which keeps prices low. With no differences between products, one seller's merchandise is just as good as another's.

The third condition is that each buyer and seller acts independently. This ensures that sellers compete against one another for the consumer's dollar, and that consumers compete against one another to obtain the best price.

The fourth condition is that buyers and sellers are reasonably well-informed about products and prices. Well-informed buyers shop at the stores that have the lowest prices. Well-informed sellers match the lowest prices of their competitors to avoid losing customers.

The fifth condition is that buyers and sellers are free to enter into, conduct, or get out of business. This freedom makes it difficult for producers in any industry to keep the market to themselves. Producers have to keep prices competitive, or new firms can take away some of their business. Collectively, these conditions help ensure the competition that is necessary to keep prices low and quality high.

Profit Maximization

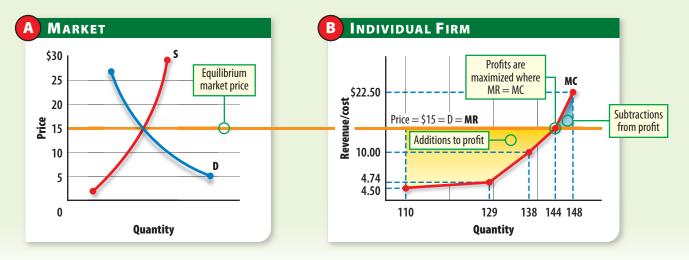
Under perfect competition, market supply and demand set the equilibrium price for the product. Because the price is determined in the market, and because each firm by itself is too small to influence the market price, the perfect competitor is often called

Figure 7.1 ▶

Perfect Competition and Profit Maximization

▶ Under perfect competition, the market forces of supply and demand establish the equilibrium price. The perfectly competitive firm treats this price as its demand curve and its marginal revenue (MR) because the firm will receive \$15 for each and every unit it sells. **Graphs In MOtion** See StudentWorks™ Plus or glencoe.com.

Economic Analysis What would happen to total profits if the firm used 10 workers instead of 9?



a "price taker." The firm then must find the level of output it can produce that will maximize its profits.

To understand how this is done, it helps to examine **Figure 7.1.** This figure shows the relationship between the perfectly competitive firm and its industry. In Panel A, supply and demand set the equilibrium market price at \$15 per unit of output. Because the firm in Panel B receives \$15 for the first and every additional unit it sells, the market price is the same as the firm's marginal revenue curve (MR).

In order to show a graphical example, the firm in Figure 7.1 is the same one that appeared earlier in Figure 5.6 on page 134. While the number of workers are not shown in Figure 7.1, the total production, marginal cost, and marginal revenue are the same in both figures.

When it comes to determining the profit maximizing quantity of output in Figure 7.1, the logic of marginal analysis is the same as before. For example, Panel B in the figure above tells us that the firm would make a profit on the 110th unit of

output because it would only cost \$4.50 to produce and could be sold for \$15. As long as the marginal cost of producing one more unit of output is less than the marginal revenue from the sale of that output, the firm would continue to hire more workers and expand its output.

Given its marginal cost and marginal revenue conditions, the firm shown in Figure 7.1 would find it profitable to hire enough workers to expand production until 144 units of output are produced. Of course, total output would continue to go up if the firm hired more workers and expanded production. However, total profits would start to go down because the marginal cost of production would then become increasingly larger than the \$15 marginal revenue from sales.

In the end, the profit maximizing quantity of output is found where the marginal cost of production is equal to the marginal revenue from sales, or where MC = MR. This occurs at 144 units of output. Other levels of output may generate equal profits, but none will generate more.

imperfect competition market structure th

market structure that does not meet all conditions of perfect competition

A Theoretical Situation

Few perfectly competitive markets exist because it is difficult to satisfy all five necessary conditions. Local vegetable farming, sometimes called "truck" farming, comes close.

In these markets many sellers offer nearly identical products. Individual sellers are generally unable to control prices, and both buyers and sellers have reasonable knowledge of most products and prices. Finally, anyone who wants to enter the business by growing tomatoes, corn, or other products can easily do so.

When markets are perfectly competitive, several things combine to keep prices low. For example, when everyone is dealing with identical products, there is no need to advertise, which keeps the cost down. Second, when the products that everyone sells are identical, there is no reason for one seller to charge a price higher than anyone else. If the seller does try to charge a higher price, buyers will simply go elsewhere.

Third, if there are a large number of independent buyers and sellers, then no single buyer is big enough to push the price down and no single seller is big enough to force the price up. As a result, buyers will always try to purchase from the seller with the lowest price.

Finally, if it is easy for sellers to enter or leave the market, then new sellers can always come in if they think they can make a profit. Likewise, sellers who cannot match the new competition are free to leave.

CAREERS

Market Researcher

The Work

- * Gather, record, and analyze facts about products and sales using company or government records, published materials, statistical files, and other sources
- * Print and circulate questionnaires or survey people over the phone or door-to-door to help companies forecast future sales trends, design new products, and develop advertising strategies

Qualifications

- * Strong analytical and writing skills
- * Experience with computerized data
- * College courses in marketing, statistics, English composition, speech, psychology, and economics
- * Bachelor's degree, with many positions requiring a master's or Ph.D.

Earnings

* Median annual earnings: \$53,810

Job Growth Outlook

* Faster than average

Source: *Occupational Outlook Handbook,* 2006–2007 Edition

Imperfect Competition

Although perfect competition is rare, it is important because economists use it to evaluate other, less competitive, market structures. **Imperfect competition** is the name given to any of three market structures-monopolistic competition, oligopoly, and monopoly—that lacks one or more of the conditions required for perfect competition. Most firms and industries in the United States today fall into one of these categories. When we examine imperfect competition, we will see that it results in less competition, higher prices for consumers, and fewer products offered. This is why perfectly competitive markets are theoretically ideal situations that can be used to evaluate other market structures.

Reading Check Describing Why does perfect competition serve as a theoretical market structure?



Product Differentiation

Monopolistic competitors must find ways to attract the attention of buvers. How does the advertisement on this billboard differentiate this product from other colas?

Monopolistic Competition

MAIN Idea Monopolistic competition shares all the conditions of perfect competition except the same goods or services.

Economics & You How many stores do you know that offer similar products? Read on to learn how this reflects monopolistic competition.

Monopolistic competition is the market structure that has all the conditions of perfect competition except for identical products. Under monopolistic competition, products are generally similar and include things such as designer clothing, cosmetics, and shoes. The monopolistic aspect is the seller's ability to raise the price within a narrow range. The competitive aspect is that if sellers raise or lower the price enough, customers will ignore minor differences and change brands.

Product Differentiation

Monopolistic competition is characterized by **product differentiation**—real or perceived differences between competing products in the same industry. Most items produced today—from the many brands of athletic footwear to personal computers are differentiated.

Nonprice Competition

To make their products stand out, monopolistic competitors try to make consumers aware of product differences. They do this with **nonprice competition**—the use of advertising, giveaways, or other promotions designed to convince buyers that the product is somehow unique or fundamentally better than a competitor's.

In a monopolistically competitive industry, advertising is important. This explains why producers of designer clothes spend so much on advertising and promotion. If a seller can differentiate a product in the mind of the buyer, the firm may be able to raise the price above its competitors' prices. Because advertising is expensive, it raises the cost of doing business for the monopolistic competitor, and hence the price the consumer pays.

Profit Maximization

The profit maximizing behavior of the monopolistic competitor is no different from that of other firms. The firm will expand its production until its marginal cost is equal to its marginal revenue, or where MC = MR. If the firm's advertising convinces consumers that its product is better, then it can charge a higher price. If not, the firm must charge less.

Finally, it is easy for firms to enter the monopolistically competitive industry. Each new firm makes a product only a little different from others on the market. The result is a large number of firms producing a variety of similar products.

Reading Check Comparing How is profit maximization in a monopolistic firm different from that of a perfect competitor?

monopolistic competition

market structure that meets all conditions of perfect competition except identical products

product differentiation real or imagined differences between competing products in

the same industry

nonprice competition sales strategy focusing on a product's appearance, quality, or design rather than its price

The Global Economy OU



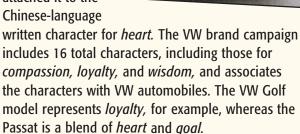
Poco, Heart, and Wisdom

If you invent a product, remember that an important part of selling it is the brand name. In the global economy, Western brands sometimes get lost in translation. The real genius in selling overseas is to capture foreign consumers' attention with a Western product, but relate it to their lives and culture in a familiar way.

PepsiCo, for example, sells its popular Lays potato chips in China. It also introduced a local brand of potato chips called Poco. In addition to changing the name of the chips, PepsiCo adjusted the flavor to satisfy local tastes.

German carmaker Volkswagen used its slogan, "For the love of the automobile," as a springboard for the







oligopoly market structure in which a few large sellers dominate the industry

collusion

agreement, usually illegal, among producers to fix prices, limit output, or divide markets

Personal Finance Handbook

See pages **R30–R31** for more information on buying a car.

Oligopoly

MAIN Idea Oligopoly describes a market in which a few sellers dominate an industry.

Economics & You What products can you think of that are sold by a small number of sellers? Read on to learn about oligopolies.

Oligopoly is a market structure in which a few very large sellers dominate the industry. The product of an oligopolist may have distinct features, as do the many makes and models of cars in the auto industry; or it may be standardized, as in the steel industry. As a result, oligopoly is further from perfect competition than monopolistic competition.

In the United States, many markets are already oligopolistic, and many more are becoming so. For example, Burger King, McDonald's, and Wendy's dominate the fast-food industry. A few large corporations control other industries, such as the domestic airline and automobile industries.

Interdependent Behavior

Because oligopolists are so large, whenever one firm acts, the other firms in the industry usually follow—or they run the risk of losing customers. For example, when Chrysler introduced the first minivan, other companies soon followed.

The tendency of oligopolists to act together often shows up in their pricing behavior, such as copying a competitor's price reduction in order to attract new customers. For example, if Ford or General Motors announces zero-interest financing or thousands of dollars back on each new car purchased, its competitors will match the promotion almost immediately. In extreme cases this can lead to a price war, or a series of price cuts that result in unusually low prices.

Because oligopolists usually act together when it comes to changing prices, many firms prefer to compete on a nonprice basis by enhancing their products with new or different features. Automobile companies do this every year when they introduce models. If an oligopolist finds a way to enhance a product, its competitors are at a disadvantage for a period of time. After all, it takes longer to develop a new physical attribute for a product than it does to match a price cut.

Sometimes the interdependent behavior takes the form of **collusion**, a formal agreement to set specific prices or to otherwise behave in a cooperative manner. One form

of collusion is **price-fixing**, or agreeing to charge the same or similar prices for a product. In almost every case these prices are higher than those determined under competition. The firms also might agree to divide the market so that each is guaranteed to sell a certain amount. Because collusion usually restrains trade, it is against the law.

Profit Maximization

The oligopolist, like any other firm, maximizes its profits when it finds the quantity of output where its marginal cost is equal to its marginal revenue, or where MC = MR. The oligopolist will then charge the price consistent with this level of sales.

Because of all the nonprice competition, the product's final price is likely to be higher than it would be under monopolistic competition, and much higher than it would be under perfect competition. Nonprice competition is always expensive for a firm, and these expenses usually come back to the consumer in the form of higher prices.

Reading Check Explaining Why do oligopolists frequently appear to act together?

Monopoly

MAIN Idea A monopoly is a market with only one seller for a particular product.

Economics & You Did you ever play the game of Monopoly? Read on to learn how this game reflects the problems caused by having one seller in the market.

At the opposite end of the spectrum from perfect competition is monopoly. A monopoly is a market structure with only one seller of a particular product. This situation—like that of perfect competition—is an extreme case. In fact, the American economy has very few, if any, cases of pure monopoly—although the local cable TV operator or telephone company may come close.

Even the telephone company, however, faces competition from other communication companies, from the United States Postal Service, and from Internet providers that supply e-mail and telephone services. Local cable providers face competition from video rental stores, satellite cable systems, and the Internet. Consequently, when people talk about monopolies, they usually mean near-monopolies.

price-fixing

agreement, usually illegal, by firms to charge the same price for a product

monopoly market structure with a single seller of a particular product

Figure 7.2 ▶

Characteristics of Market Structures

	Number of firms in industry	Influence over price	Product differentiation	Advertising	Entry into market	Examples
Perfect competition	Many	None	None	None	Easy	Perfect: None Near: Truck farming
Monopolistic competition	Many	Limited	Fair amount	Fair amount	Easy	Gas stations Women's clothing
Oligopoly	Few	Some	Fair amount	Some	Difficult	Automobiles Aluminum
Pure monopoly	One	Extensive	None	None	Almost impossible	Perfect: None Near: Water

➤ The term market structure refers to the nature and degree of competition among firms operating in the same industry. Individual market structures, listed on the left, are determined by the five characteristics listed in the columns above.

Economic Analysis In which market structure does nonprice competition play a major role?



Monopolies A geographic monopoly exists when there is only one seller of a product in a particular area. What would indicate that this gas station has a geographic monopoly?

natural monopoly market structure where average costs of production are lowest when a single firm exists

economies of scale situation in which the average cost of production falls as a firm gets larger

geographic monopoly market structure in which one firm has a monopoly in a geographic area

technological monopoly monopoly based on a firm's ownership or control of a production method, process, or

other scientific advance

We have few monopolies today because Americans traditionally have disliked them and have tried to outlaw them. Another reason is that new technologies often introduce products that compete with existing monopolies. The development of the fax machine allowed businesses to send electronic letters that competed with the U.S. Postal Service. Later, e-mail became even more popular than the fax. Today, telephone service over the Internet is yet another technology challenging phone monopolies.

Types of Monopolies

Sometimes the nature of a good or service dictates that society would be served best by a monopoly. A **natural monopoly**—a market situation where the costs of production are minimized by having a single firm produce the product—is one such case.

Natural monopolies often can provide services more cheaply than several competing firms could. For example, two or more competing telephone companies serving the same area would be inefficient if each company needed its own telephone poles and lines. Public utility companies fall into this category because it would be wasteful to duplicate the networks of pipes and wires that distribute water, gas, and electricity throughout a city. To avoid these problems, the government often gives a public utility company a franchise—the exclusive right to do business in a certain area without competition. By accepting such franchises, the companies also accept a certain amount of government regulation.

The justification for the natural monopoly is that a larger firm can often use its personnel, equipment, and plant more effi-

ciently. This results in economies of scale, a situation in which the average cost of production falls as the firm gets larger. When this happens, it makes sense for the firm to be as large as is necessary to lower its production costs.

Sometimes a monopoly exists because of a specific location. A drugstore operating in a town too small to support two or more such businesses becomes a **geographic monopoly**. This is a monopoly based on the absence of other sellers in a certain geographic area. Similarly, the owner of the only gas station on a lonely interstate highway exit also has a type of geographic monopoly.

A **technological monopoly** is a monopoly that is based on ownership or control of a manufacturing method, process, or other scientific advance. The government may grant a patent—an exclusive right to manufacture, use, or sell any new and useful invention for a specific period—to the inventor. Inventions are covered for 20 years; however, a product's design can be patented for shorter periods, after which it becomes public property available for the benefit of all. Art and literary works are protected through a copyright—the exclusive right of authors or artists to publish, sell, or reproduce their work for their lifetime plus 50 years.

Still another kind of monopoly is the government monopoly—a monopoly owned and operated by the government. Government monopolies are found at all three levels of government—national, state, and local. In most cases they involve products or services that private industry cannot adequately supply.

Many towns and cities have monopolies that oversee water use. Some states control alcoholic beverages by requiring that they be sold only through state stores. The federal government controls the processing of weapons-grade uranium for military and national security purposes.

Profit Maximization

Monopolies maximize profits the same way other firms do: they equate marginal cost with marginal revenue to find the profit-maximizing quantity of output. Even so, there are differences between the monopolist and other profit-maximizing firms—especially the perfect competitor.

First, the monopolist is much larger than the perfect competitor. This is because there is only one firm—the monopolist—supplying the product, rather than thousands of smaller ones. Second, both because of its large size and the lack of meaningful competition, the monopolist is able to behave as a "price maker." This differs from the perfect competitor, who faces competition and is a price taker.

Because there are no competing firms in the industry, there is no equilibrium price facing the monopolist. In order for the monopolist to maximize its profits, it will do exactly as all the other firms have done: it will equate MC with MR because this method always shows the level of output that produces the highest total profits. The result will be a very high price—higher than would be charged under conditions of perfect competition, monopolistic competition, or oligopoly.

✓ Reading Check Analyzing Why do natural monopolies sometimes result in economies of scale?

government monopoly

a monopoly owned and operated by the government

✓ Skills Handbook

See page **R41** to learn about **Drawing** Conclusions.

SECTION

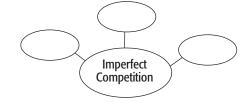
Review

Vocabulary

1. Explain the significance of laissez-faire, market structure, perfect competition, imperfect competition, monopolistic competition, product differentiation, nonprice competition, oligopoly, collusion, price-fixing, monopoly, natural monopoly, economies of scale, geographic monopoly, technological monopoly, and government monopoly.

Main Ideas

- 2. Explaining Why is the perfect competitor often called a "price taker"?
- **3. Identifying** Use a graphic organizer like the one below to identify the characteristics of imperfect competition.



Critical Thinking

- 4. The **BIG** Idea Describe the four basic market structures and explain how they differ from one another.
- **5. Differentiating** Which characteristics of firms selling designer clothing are monopolistic? Which are competitive? Write a brief paragraph explaining your answer.
- **6. Inferring** If Americans traditionally dislike monopolies, why do some monopolies exist today? What types of monopolies are they, and what are their characteristics?
- **7. Analyzing Visuals** Compare the photos of the farmers on page 170 and the gas station on page 176. How do market conditions differ for these sellers?

Applying Economics

8. Product Differentiation Search your local newspaper for local clothing stores ads. You should find at least two different ads. Describe how the advertisements succeed or fail to differentiate the products.



Bill Gates (1955-)

- co-founder and chairman of Microsoft Corporation
- ranked the richest man in the world for 12 years in a row

Early Start

Bill Gates was not the first computer geek, but he was probably the most passionate. In high school, he designed a class-scheduling program so that he could take courses with the prettiest girls in his school. He also started Traf-O-Data, a computer traffic analysis company. At Harvard University, he and his friend Paul Allen wrote an operating-system language that they licensed to a computer manufacturer. With this early success, at age 19 Gates dropped out of Harvard and, with Allen, established Microsoft Corporation in 1975.

Five years later, computer industry giant IBM asked Gates to develop an operating system for its new personal computer. Gates modified a system he had bought from a small company and called it MS-DOS, for Microsoft Disk Operating System. Gates decided to license rather than sell it to IBM. This allowed him to market MS-DOS to other companies. By 1993 Microsoft's Windows operating system ran nearly 90 percent of the world's PCs.

Gates and the Average Computer User

Much of Gates's success came from understanding the needs of average computer users. His software encompasses a range of programs integrated to work together seamlessly for everyday users and businesses. Gates made sure that all programs were written to be user-friendly to make computing fun. As a result, computers became accessible to non-techies worldwide.

Gates is also known for his business stance. "He expects energy and commitment from his employees," said one Microsoft employee. "He insists on a thoughtful, thorough, complete analysis." Even Gates admits his tenacity. "In the early days, I liked to review every line of code, to interview every job applicant," he said. "I've had to lighten up in both of those areas."

Personal computers had appeared in the marketplace by 1975, but they were still a novelty. Many people saw them as science fiction gadgets from the set of Star Trek. But Seattle teenagers Bill Gates and Paul Allen had a vision to "put a computer on every desktop and in every home."

Examining the Profile

- **1. Analyzing** What characteristics made Gates a successful entrepreneur?
- **2. Predicting Consequences** How might the Microsoft story have been different if Gates had sold MS-DOS to IBM rather than licensing it?

Market Failures

GUIDE TO READING

Section Preview

In this section, you will find out that inadequate competition, inadequate information, immobile resources, public goods, and externalities can lead to market failures.

Content Vocabulary

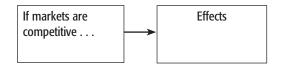
- market failure (p. 180)
- public goods (p. 181)
- externality (p. 181)
- negative externality (p. 182)
- positive externality (p. 182)

Academic Vocabulary

- collude (p. 180)
- sustain (p. 181)

Reading Strategy

Listing As you read the section, think about why maintaining adequate competition is a worthwhile goal. Use a graphic organizer like the one below to list some of the effects of competition.



COMPANIES IN THE NEWS

Enron

A federal judge in Houston sentenced Richard Causey, former chief accounting officer of Enron, to 5 1/2 years in prison Wednesday, bringing an end to the government's prosecution of top managers at what was once the nation's seventh-largest company. . . .

Enron collapsed into bankruptcy five years ago after acknowledging that [Andrew] Fastow, the CFO, had entered into numerous business deals with the company that helped prop up Enron's earnings. Fastow later admitted that he embezzled close to \$30 million from the company. Enron's market capitalization, which at one point exceeded \$60 billion, was wiped out in the ensuing sell-off of stock.

In January 2002, the Department of Justice formed the Enron Task Force. Since then, prosecutors induced 16 former executives to plead guilty to related crimes, while several others were convicted at trial. . . . [W]ith Causey's sentencing, the last of the big Enron cases has been disposed of.



–USA Today

he story about Enron reminds us of a serious fact of economic life—that markets sometimes fail. In fact, the Enron scandal was not the only accounting scandal dominating the news in the early 2000s. WorldCom, a telecommunications company, had to declare bankruptcy in 2002 amid charges of breaking the law.

These news stories showed clearly that a competitive free enterprise economy works best when several conditions, including adequate information, are met. If we want to avoid problems like this in the future, we need to be able to identify and then deal with different types of market failures.

market failure condition that causes a competitive market to fail

Types of Market Failures

MAIN Idea Markets can sometimes fail because of inadequate competition, inadequate information, resource immobility, public goods, and externalities.

Economics & You Have you ever been affected by something that somebody did to another person? Read on to learn how this can also happen in the economy.

Unfortunately markets sometimes fail. A market failure occurs whenever one of the conditions necessary for competitive markets does not exist. As you will learn, five main causes of market failures exist.

Inadequate Competition

Over time, mergers and acquisitions result in larger and fewer firms dominating various industries. The decrease in competition tends to reduce the efficient use of scarce resources—resources that could be put to other, more productive uses if they were available. For example, why would a firm with few or no competitors have the incentive to use its resources carefully?

Inadequate competition can occur on both the demand and supply sides of the market. If we consider the supply side of the market, there is no competition when a monopolist dominates. In an oligopolistic market, the temptation to collude is strong.

Did You Know

Expensive Memories The first law to fight monopolies, the Sherman Antitrust Act, was enacted in 1890 as a response to growing concern over the power of trusts. Enforcement was left to the courts, and judges considered the language of the act too vague to make big companies change the way they did business. As a result, the number of trusts increased following passage of the act. It took another 14 years before the first major lawsuit, Northern Securities v. the United States, was filed.

Laws have become stronger since then, but price collusion still is a problem. In May 2006 three computer memory chip manufacturers were accused of fixing prices over a three-year period. This increased the price of chips for computer manufacturers, and thus the price of computers for consumers. The chipmakers agreed to pay \$160 million to settle the case. If we look at the demand side of the market, there is little or no competition if the government is the only buyer for space shuttles, hydroelectric dams, super computers, M-1 tanks, or high-technology fighter jets.

A firm that does not face adequate competition could easily spend its profits on huge salaries and bonuses, executive jets, country club memberships, and generous retirement plans. This is one of the reasons that public utilities such as electricity are regulated by the government—to make sure that the firms do not use their monopoly status to waste or abuse resources.

Inadequate competition also may enable a business to influence politicians in order to get special treatment that enriches its managers and owners. In fact, some of the players in the huge Enron energy scandal were accused of doing just that—lobbying administration and Energy Department officials for favorable treatment on policy issues that benefited Enron executives.

Inadequate Information

If resources are to be allocated efficiently, everyone—consumers, businesspeople, and government officials-must have adequate information about market conditions. A secretary or an accountant may receive a competitive wage in the automobile industry, but wages for the same skills might be higher in the insurance or banking industry.

Some information is easy to find in the classified ads in the newspaper or on the Internet. Other information is more difficult to find. If this knowledge is important to buyers and sellers but is difficult to obtain, then it is an example of a market failure.

The consequences of inadequate information may not always be immediately visible, but in the long run it will put a slow drain on the economy, lowering the rate of growth and the overall standard of living.

Resource Immobility

A difficult problem in any economy is that of resource immobility. This means that land, capital, labor, and entrepreneurs



Public Goods Funding floodwalls is expensive, but failing to keep up with maintenance can have catastrophic results, as the photo of New Orleans after **Hurricane Katrina** shows. Why does the market not provide more public goods?

do not move to markets where returns are the highest. Instead they tend to stay put and sometimes remain unemployed.

What happens, for example, when a large auto assembly plant, steel mill, or mine closes, leaving hundreds of workers without employment? Certainly some workers can find jobs in other industries, but not all can. Some of the newly unemployed may not be able to sell their homes. Others may not want to move away from friends and relatives to find new jobs in other cities.

Public Goods

Another form of market failure shows up in the form of public goods. Public goods are products that are collectively consumed by everyone. Their use by one individual does not diminish the satisfaction or value available to others. Examples of public goods are uncrowded highways, floodcontrol measures, national defense, and police and fire protection.

When left to itself, the market either does not supply these items at all, or it supplies them inadequately. This is because a market economy produces only those items that can be withheld if people refuse to

pay for them. It would be difficult, for example, to deny one person the benefits of national defense while supplying it to others. Because it is so difficult to have all individuals pay for their fair share of a public good, private markets produce too few of them.

In the aftermath of Hurricane Katrina, it was evident that the floodwalls in New Orleans could not sustain the onslaught of the hurricane. Floodwalls are public goods that are normally funded out of government expenditures; they are not built by the private sector because there is little profit to be gained by building them. A related problem is that government does not always see the need to spend tax dollars on public goods. In the case of the floodwalls, it was all too easy to postpone the necessary expenditures because they would have resulted in higher taxes or in not building other public goods.

Externalities

Many activities generate some kind of externality, or unintended side effect that either benefits or harms a third party not involved in the activity that caused it.

public goods

goods or services whose benefits are available to everyone and are paid for collectively

externality

economic side effect that affects an uninvolved third party

Externalities Air pollution is a negative externality that affects those who did not cause it. *How can* government action lead to the cleanup of pollution?



negative externality harmful side effect that

affects an uninvolved third party

positive externality

beneficial side effect that affects an uninvolved third party

A negative externality is the harm, cost, or inconvenience suffered by a third party because of actions by others. The classic case of a negative externality is the noise and inconvenience some people suffer when an airport expands.

A positive externality is a benefit someone receives who was not involved in the activity that generated the benefit. For example, people living on the other side of town may benefit from the additional jobs generated by the airport expansion, or a nearby restaurant may sell more meals and hire more workers. Both the restaurant owners and the new workers gain from the airport expansion even though they had nothing to do with the expansion in the first place.

Externalities are market failures because their costs and benefits are not reflected in the market prices that buyers and sellers pay. For example, airlines do not compensate homeowners for the diminished value of properties located near a new runway extension. Nor does a restaurant owner share any additional profits with the airport. As a result, the prices that travelers pay for air travel will not reflect the external costs and benefits that an airport expansion generates.

✓Reading Check **Analyzing** What type of market failure do you think is most harmful to the economy?

Dealing with Externalities

MAIN Idea Externalities indicate a market failure and can be corrected with government action.

Economics & You Have you ever been affected by someone else's pollution? Read on to learn how this can be remedied.

The problem with externalities is that they distort the decisions made by consumers and producers. Overall this makes the economy less efficient.

Correcting Negative Externalities

A classic example of pollution sheds some light on the distortions caused by negative externalities. Firms historically located near rivers because transportation was convenient. However, the firms also used the rivers as a giant waste disposal system, which helped keep their production cost low. This led to lower market prices for the final product, and consumers were able to buy more.

The negative externality of pollution generated several problems. Firms had the incentive to pollute because it was the most profitable way to produce. The low prices also encouraged more sales, and hence

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more pollution. Finally, people living downstream from the polluting firms were, in effect, paying for some of the production costs even if they did not necessarily buy the products.

Suppose the government decided to force the firms to clean up their pollution by putting a \$1 "pollution tax" on every unit of output sold. The firms, of course, would try to pass some of this expense on to the consumer in the form of higher prices. While higher prices might at first seem to be a problem, they would force the people who bought the products to pay for the increase in production costs.

The tax would help alleviate pollution problems. First, all firms would have less incentive to pollute because the tax drives up the price of their products. Second, higher prices would reduce the quantity demanded, so firms would produce less and therefore generate less pollution. Third, the people living downstream of the affected rivers would face less pollution.

Correcting Positive Externalities

Externalities can be positive as well as negative. You have learned that negative externalities lead to distortions. Yet even when externalities are positive, so that uninvolved third parties experience beneficial side effects, distortions can occur.

A classic example is education. We know that people generally earn more when they have more education. In addition, a community with a well-educated workforce will attract more industry, have more economic development, and enjoy a higher standard of living. For these and other reasons, it makes sense for the government to subsidize the cost of public education.

This is exactly what happens when local governments pay for the cost of primary and secondary public education. When it comes to the higher education offered by state universities, however, state governments only pay for part of the cost, leaving students to pick up the rest in the form of tuition payments.

Given education's value to the community, many experts feel that the government subsidies should be larger than they are. This is expensive, however, so government tends to underfund higher education even though more subsidies are warranted.

✓ Reading Check Explaining If externalities are positive, why should they be corrected?

SECTION

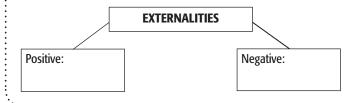
Review

Vocabulary

1. Explain the significance of market failure, public goods, externality, negative externality, and positive externality.

Main Ideas

- 2. Explaining Why do markets need both adequate competition and adequate information?
- **3. Identifying** Use a graphic organizer like the one below to identify and describe both types of externalities.



Critical Thinking

- 4. The BIG Idea List and explain the reasons why markets fail.
- 5. Understanding Cause and Effect Describe some of the positive and negative externalities that could result from the closing of a military base.
- **6. Making Inferences** Under what circumstances would a private firm be willing to build private toll roads?

Applying Economics

7. Negative Externality Identify a situation in your community that resulted in a negative externality. How would you advise the government to reduce these negative effects? Write a short paper outlining your suggestions.

BusinessWeek NEWSCLIP

In 1984 concerns over a telecommunications monopoly led to **⊥**the breakup of AT&T into eight different companies. Just a little over 20 years later, AT&T mergers seem to recreate the former corporation. When such mergers result in larger and fewer firms dominating an industry, some economists worry.

Lord of the Rings

Competition in communications seems cutthroat. Companies are invading each other's turf, and prices are falling. You can make a video-phone call to Australia via the Internet, chat for three hours, and never pay a penny. Citing all this hubbub, AT&T Inc. argues that there's no threat of remonopolization even as it bids to reunite five of the eight companies that emerged from the 1984 breakup of the Bell System.

Look out, though. The competition we're seeing is just a phase, and an unstable one at that. The key thing about communications networks is that they're very costly to build, but once they're built, it's cheap to add customers to them. This industry structure has special economic properties. At times it produces price wars. At other times it leads to merger waves, resulting in a small number of competitors with the ability to raise prices and garner big profits. . . .



Fragile Competition

Communications companies may be shifting strategies from battling rsolidating.

Strategy 1
Price War panies need lots offic to cover the of their expensive works, so they rices. That forces er companies to ocate. Eventually rofits vanish.

Strategy 2

Merger Wave Companies merge, with the strong buying the weak. As competition diminishes, profits rise. This strategy is more desirable to the companies, but may be banned by regulators.



In this delicate situation, [communications companies] have used two main strategies over the years. One has been to cut prices to fill up their networks. Remember, additional customers are cheap to serve, so there's room to cut. . . .

The alternative strategy, which [the CEO of AT&T] and others have also pursued, is consolidation. As long as regulators permit, the strong buy the weak and extinguish the excess capacity. As competition eases, the survivors can raise prices and restore their profitability. (Good for shareholders; bad for customers.)

—Reprinted from BusinessWeek

Examining the Newsclip

- 1. Summarizing What two strategies has AT&T used in recent years to gain new business, and why?
- 2. Determining Cause and Effect How does lack of competition increase prices for the consumer?

The Role of Government

GUIDE TO READING

Section Preview

In this section, you will learn that one of the economic functions of government in a market economy is to maintain competition.

Content Vocabulary

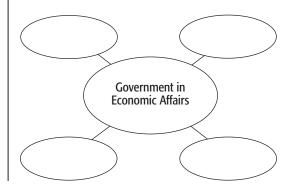
- trust (p. 186)
- price discrimination (p. 186)
- cease and desist order (p. 186)
- public disclosure (p. 188)

Academic Vocabulary

- restrained (p. 186)
- intervention (p. 189)

Reading Strategy

Describing As you read the section, complete a graphic organizer like the one below by describing how governments try to avoid market failures.



PRODUCTS IN THE NEWS

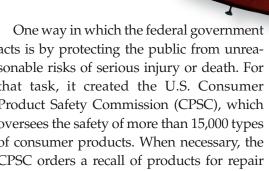
Electric Bass Recalled

The U.S. Consumer Product Safety Commission, in cooperation with Hoshino USA Inc., of Bensalem, Pa., and Chesbro Music Company, of Idaho Falls, Idaho, today announced a voluntary recall of about 700 Ibanez basses. If the battery is improperly installed, the bass can overheat, causing internal damage and a fire hazard. The firm has received three reports of the bass not working due to improper battery installation. There have been no reports of injuries or property damage.

This recall involves 2005 and 2006 Ibanez Soundgear, Roadgear and Gary Willis series basses. Model numbers are located on the back of the headstock. Consumers should stop using the basses immediately and contact their local Ibanez dealer for a free inspection and repair. Dealers will remedy the hazard by having affected basses updated with a new battery snap connector.

We know that resources are scarce, and because of scarce resources we have to make careful choices if we are to satisfy our many wants and needs. We also know that competitive markets are one of the best ways to make this happen. At the same time, markets can fail. When they do, the government can step in and fix the problem.

One way in which the federal government acts is by protecting the public from unreasonable risks of serious injury or death. For that task, it created the U.S. Consumer Product Safety Commission (CPSC), which oversees the safety of more than 15,000 types of consumer products. When necessary, the CPSC orders a recall of products for repair or replacement, as in the news story.



-www.cpsc.gov

trust illegal combination of corporations or companies organized to hinder competition

price discrimination practice of selling the same product at different prices to different buyers

cease and desist order ruling requiring a company to stop an unfair business practice that reduces or limits competition

Maintain Competition

MAIN Idea The government exercises its power to maintain competition within markets.

Economics & You When you play sports, a referee regulates the game to make sure both sides are playing fairly. Read on to learn how the government can regulate the economy to do the same thing.

There are two ways that government can maintain competitive markets. One is by prohibiting market structures that are not competitive. The other is by regulating markets where full competition is not possible.

Antitrust Legislation

In the late 1800s, the United States passed laws to restrict monopolies and **trusts**—combinations of firms designed to restrict competition or control prices in a particular

Figure 7.3 ►

Anti-Monopoly Legislation



▶ The federal government passed four major legislative acts to curb monopolistic practices.

Economic Analysis What is the purpose of the Federal Trade Commission?

industry. Since then, several laws have been passed that allow the government to either prevent or break up monopolies and trusts, thus preventing market failures due to inadequate competition.

In 1890 Congress passed the Sherman Antitrust Act "to protect trade and commerce against unlawful restraint and monopoly." The Sherman Act, described in Figure 7.3, was the nation's first significant law against monopolies. It sought to do away with monopolies and restraints that hindered competition. By the early 1900s, a number of businesses, including the Standard Oil Company, had been convicted of restraint of trade under the Sherman Act.

The Sherman Act laid down broad foundations for maintaining competition. However, the act was not specific enough to stop many other practices that **restrained** competition. As a result, Congress passed the Clayton Antitrust Act in 1914 to give the government more power over monopolies. This outlawed **price discrimination**—the practice of selling the same product to different consumers at different prices if it substantially lessens competition.

The Federal Trade Commission Act was passed in the same year to enforce the Clayton Antitrust Act. The act set up the Federal Trade Commission (FTC) and gave it the authority to issue cease and desist orders. A **cease and desist order** is an FTC ruling requiring a company to stop an unfair business practice, such as price-fixing, that reduces or limits competition among firms.

In 1936 Congress passed the Robinson-Patman Act in an effort to strengthen the Clayton Act, particularly the provisions that dealt with price discrimination. Under this act, companies could no longer offer special discounts to some customers while denying them to others.

Government Regulation

Not all monopolies are bad, and for that reason not all should be broken up. In the case of a natural monopoly, it makes sense to let the firm expand to take advantage of lower production costs, and then regulate its activities so that it cannot take advantage of the consumer.

Local and state governments regulate many monopolies, such as cable television companies, and water and electric utilities. For example, if a public utility wants to raise rates, it must argue its case before a public utility commission or other government agency.

Agencies of the federal government, such as those listed in Figure 7.4, regulate many different kinds of businesses. However, as you can see from the dates in the figure, in recent years the government has been less inclined to set up new regulatory bodies. Instead, the emphasis has shifted to promoting efficiency.

Reading Check Describing Why are some government regulations beneficial for consumers?

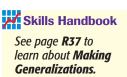


Figure 7.4 ►

Federal Regulatory Agencies

Agency	Tasks	
Food and Drug Administration (FDA), 1906	Enforces laws to ensure purity, effectiveness, and truthful labeling of food, drugs, and cosmetics; inspects production and shipment of these products	
Federal Trade Commission (FTC), 1914	Administers antitrust laws forbidding unfair competition, price fixing, and other deceptive practices	
Federal Communications Commission (FCC), 1934	Licenses and regulates radio and television stations and regulates interstate telephone and telegraph rates and services	
Securities and Exchange Commission (SEC), 1934	Regulates and supervises the sale of listed and unlisted securities and the brokers, dealers, and bankers who sell them	
National Labor Relations Board (NLRB), 1935	Administers federal labor-management relations laws; settles labor disputes; prevents unfair labor practices	
Federal Aviation Administration (FAA), 1958	Oversees the airline industry	
Equal Employment Opportunity Commission (EEOC), 1964	Investigates and rules on charges of discrimination by employers and labor unions	
Environmental Protection Agency (EPA), 1970	Protects and enhances the environment	
Occupational Safety and Health Administration (OSHA), 1970	Investigates accidents in the workplace; enforces regulations to protect employees at work	
Consumer Product Safety Commission (CPSC), 1972	Develops standards of safety for consumer goods	
Nuclear Regulatory Commission (NRC), 1974	Regulates civilian use of nuclear materials and facilities	
Federal Energy Regulatory Commission (FERC), 1977	Supervises transmission of various forms of energy	

The government has created a number of federal regulatory agencies to oversee the economy. Because of government's involvement in the economy, we have a modified free enterprise system.

Economic Analysis Which agencies listed in the table are familiar to you? Which affect you directly? Why?

public disclosure

requirement that a business reveal information about its products or its operations to the public



See page **R14-R15** for more information on loans.

Improve Economic Efficiency

MAIN Idea Providing public goods and promoting transparency can improve economic efficiency.

Economics & You Can you name some public goods in your community? Read on to learn why public goods must be provided by the public sector.

Fortunately, the government has the ability to correct two market failures that interfere with competitive markets: inadequate information and public goods.

Promote Transparency

Efficient and competitive markets need adequate information. *Transparency* is a term used to indicate that information and actions are not hidden and instead are easily available for review.

Public disclosure, the requirement that businesses reveal certain information to the public, is an important way to do this. For example, all corporations that sell stock

Transparency Governments require disclosure to prevent companies from providing misleading information. **What requirements protect you as a borrower?**



"This isn't rocket science, folks. One, we substitute code words for substantive ideology. Two, we create misleading advertising. Three, we issue bold pronouncements on phony profit margins. It's all right here in the corporate training manual."

to the public must disclose financial and operating information on a regular basis to both their shareholders and the Securities and Exchange Commission (SEC). This data is stored in a free database that can be accessed by anyone on the Internet.

Disclosure requirements also exist for consumer lending. If you obtain a credit card or borrow money to buy a car, the lender will explain in writing the method for computing the monthly interest, the length of the loan, the size of the payments, and other lending terms. This is not an act of kindness on the lender's part because federal law requires these disclosures. Finally, "truth-in-advertising" laws prevent sellers from making false claims about their products.

Most government documents, studies, and reports are available on the Internet. This includes the annual budget of the U.S. government, the *Statistical Abstract of the United States*, Census Bureau reports, and nearly every other publication that you can find in the government documents section of your local public library.

Provide Public Goods

A free enterprise economy does not produce public goods in sufficient quantity because such efforts usually do not result in direct financial gain. This means that many of the things society values—good roads and highways, museums and libraries, and education—must be provided by government.

Public goods are important because they make the economy more productive. For example, businesses need reliable transportation so that they can move their raw materials and final products. In addition, their employees need to be able to easily communite to and from work. Firms also need an educated workforce that is both productive and able to purchase the products that are produced.

Reading Check Interpreting What negative things could happen in a market without disclosure?

Modified Free Enterprise

MAIN Idea Because the government is involved in certain aspects of our economy, it is a modified version of free enterprise.

Economics & You What role does government play in your life? Read on to learn why some government regulation is desirable.

The U.S. economy has changed dramatically over the years. One of the outcomes of this evolution is the rise of the modified free enterprise economy.

In the late 1800s, the freedom to pursue self-interests led some people to seek economic gain at the expense of others. Under the label of competition, many larger firms used their power to take advantage of smaller ones. In some markets, less competitive market structures such as monopoly replaced competition, and the economy became less efficient.

Because of these developments, Congress passed laws to prevent "evil monopolies" and to protect the rights of workers. It also passed food and drug laws to protect people from false claims and harmful products. Even public utilities faced significant government regulation to prevent the price gouging of consumers. Collectively, these actions have resulted in a modification of free enterprise.

More recently, concern has shifted to economic efficiency and the role of the government in promoting it. Markets have become increasingly important, and we recognize that markets can fail in several different ways. When this happens, the government can take steps to remedy the situation.

In addition to occasional interventions to keep markets reasonably competitive, the government can make the economy more efficient by supplying public goods and promoting transparency. People will continue to debate the proper role of government, but it turns out that markets alone cannot provide all of our wants and needs.

Over the years, government's role in the economy has slowly evolved from concern over consumer protection to the promotion of economic competition and efficiency. As a result of this government intervention, we now have a modified private enterprise economy, or an economy based on markets with varying degrees of government regulation.

✓Reading Check **Summarizing** Why do we use the term modified to describe the American free enterprise economy?



Student Web Activity Visit the Economics: Principles and Practices Web site at glencoe.com and click on Chapter 7-Student Web Activities for an activity on the government's role in promoting fair business practices.

Skills Handbook

See page R45 to learn about **Synthesizing** Information.

SECTION

Review

Vocabulary

1. Explain the significance of trust, price discrimination, cease and desist order, and public disclosure.

Main Ideas

2. **Identifying** Use a graphic organizer similar to the one below to identify how the federal government can maintain competition and improve economic efficiency.

Action	Purpose
Antitrust legislation	

3. **Explaining** Why is the United States considered to have a modified free enterprise economy?

Critical Thinking

- 4. The BIG Idea Why is the government involved in economic affairs?
- **5. Making Inferences** Why do governments regulate monopolistic cable companies and not prohibit them?
- 6. Synthesizing Information Identify at least two instances where you have personally benefited from government regulations. Explain the benefits.

Applying Economics

7. Public Disclosure Obtain literature describing the computation of interest and conditions for withdrawal on various savings accounts from a local bank. Summarize the information in a short paragraph. Why do you think the bank is so forthcoming with this information?



CASE STUDY

Pixar and Disney

Birth of Pixar

The short, happy tale of Pixar began when John Lasseter left Walt Disney studios in 1984 to join Lucasfilm, Ltd. Two years later, Steve Jobs, CEO of Apple Computer Inc., bought the computer graphics division of Lucasfilm for \$10 million and renamed it Pixar.

After winning numerous awards for short films and commercials, Pixar, with just 44 employees, teamed up with mega-studio Disney in 1991 to coproduce major films.



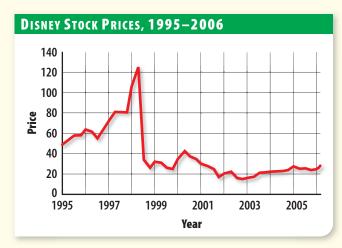
Box Office Magic, Stock Ticker Woes

Toy Story, the first collaboration by Disney and Pixar, was a box office home run, earning \$358 million in box office receipts around the world

BOX OFFICE RECEIPTS		
Toy Story	\$358.1 million	
A Bug's Life	\$357.9 million	
Toy Story 2	\$485.7 million	
Monster's Inc.	\$528.9 million	
Finding Nemo	\$865.0 million	
The Incredibles	\$624.0 million	
Cars	\$367.6 million (and counting)	

as the highestgrossing film of 1995.

The dynamic duo produced six more commercial hits, but Disney's other work did not please moviegoers. Nor did its stock price satisfy stockholders.



Disney's management hoped to boost its stock price and remedy the sometimes tumultuous relationship between Disney and Pixar by entering into merger negotiations.

Animation Merger

By that time, Pixar had grown to a company of hundreds of employees, and federal regulatory authorities reviewed the merger for possible antitrust problems. The two companies finally merged in 2006 when Disney paid \$7.5 billion for Pixar.

As hoped, the price of Disney stock started to increase. A few months later, *Cars* zoomed into theaters, bringing in more than \$60 million its first weekend. If you think stock prices follow ticket sales, though, think again. Despite that impressive showing, Disney's stock fell slightly when the movie missed its \$70 million goal.

Analyzing the Impact

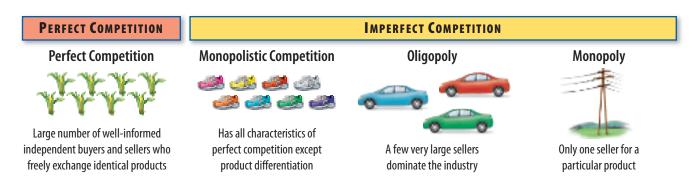
- **1. Summarizing** How did Disney expect to gain from the merger with Pixar?
- 2. Drawing Conclusions Why might federal regulators be concerned about the merger of these two movie companies?

Visual Summary

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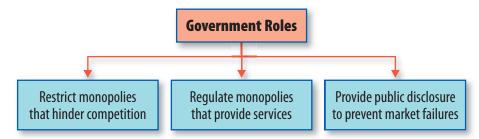
Market Structures We can differentiate among four different market structures. One is called perfect competition; the other three are different kinds of imperfect competition.



••• Market Failures When one of the conditions necessary for competitive markets does not exist, market failures can occur. Markets usually fail because of five factors.



Government Roles In order to carry out its legal and social obligations, the government can encourage competition and regulate monopolies.



Assessment & Activities

Review Content Vocabulary

Use all of the terms below to write a paragraph about each of the four types of markets. Underline the terms within your paragraphs.

- 1. market failure
- 2. geographic monopoly
- 3. imperfect competition
- 4. monopolistic competition
- 5. natural monopoly
- 6. oligopoly
- 7. product differentiation
- 8. trust
- price-fixing
- 10. nonprice competition

Review Academic Vocabulary

Use each of these terms in a sentence that reflects the term's meaning in the chapter.

11. theoretically12. equate15. restrained16. intervention

Review the Main Ideas

Section 1 (pages 169–177)

- **17. Explain** why perfect competition is a theoretical situation.
- **18. Describe** the four types of monopolies by using a graphic organizer similar to the one below.

Type of Monopoly	Description

Section 2 (pages 179–183)

- **19. Explain** what happens when markets do not have enough competition.
- **20. Describe** what is meant by *externalities*.
- Explain why the private sector is reluctant to produce public goods.

Section 3 (pages 185–189)

- 22. Identify the purpose of antitrust legislation.
- **23. Explain** how public disclosure is used as a tool to prevent market failures.
- **24. Describe** the characteristics that make the U.S. economy a "modified free enterprise" economy.

Critical Thinking

- 25. The BIG Idea Why does the federal government attempt to preserve competition among business enterprises? What different methods does the government have available for this task?
- 26. Making Inferences Do you think there would be any advantages to making monopolies or near monopolies break up into smaller, competing firms? Explain your answer.
- 27. Comparing and Contrasting Why are monopolies faced with more government regulations than other market structures?
- **28. Making Generalizations** To what extent do you think government should be involved in the free enterprise economy? Defend your answer.

Analyzing Visuals

29. Look at Figure 7.2 on page 175. Analyze the columns labeled "Influence over price" and "Entry into market." How do the various types of market structures influence the results, and why? Present your answer and reasons in a short paragraph.

Math Practice

30. The table below shows the price, market demand, market supply, and the surplus and shortage for a firm providing a product under perfect competition. Study the information in the table, and then answer the questions below.

Price	Market demand	Market supply	Surplus/ Shortage
10	600	1550	950
9		1500	780
8	850	1450	
7	990	1400	
6		1350	210
5	1300		0
4	1470		-220
3	1650	1200	
2	1840	1150	-690

- **a.** Some of the information is missing from the table. Calculate the correct information.
- **b.** What is the equilibrium price? How can you tell?
- **c.** What price(s) will produce a surplus?
- **d.** What price(s) will produce a shortage?

Applying Economic Concepts

- **31. Product Differentiation** Choose a product offered by several producers that is advertised in newspapers or magazines. Then follow the steps below:
 - **a.** Clip and save at least three different advertisements.
 - **b.** In a journal, evaluate each advertisement and write why you would or would not buy a particular brand.
 - **c.** Based on the evaluations, develop an advertisement for a product of your choice.
 - **d.** Present your ad to the class and have other students evaluate how effectively you were able to differentiate your product from that of "competitors."

Thinking Like an Economist

32. Profit Maximization Economists like to analyze decisions incrementally, taking small steps and analyzing the costs and benefits of the steps as they are made. How is this way of thinking similar to the profit maximization logic illustrated in Figure 7.1 on page 171?

Writing About Economics

33. Expository Writing Select any five of the regulatory agencies described in Figure 7.4 on page 187 that relate directly to you. Write a short essay that discusses these agencies and evaluates whether they have a positive or negative effect on your life.

Interpreting Cartoons

34. Critical Thinking Look at the cartoon below. What does the cartoon imply about monopolies? What can the government do to prevent such business practices?



"Freddie, the Little Merger Mogul, didn't expect to have a monopoly right away. He planned to start small by rigging markets, restraining trade, and suppressing competition—then..."