Part IX Microeconomic Issues and Policies

32 Antitrust Policy and Regulation

We now can apply the economics of product markets (Part 6), resource markets (Part 7), and government (Part 8) to selected microeconomic issues and policies.

In this chapter we look at three sets of government policies toward business: antitrust policy, industrial regulation, and social regulation. **Antitrust policy** consists of the laws and government actions designed to prevent monopoly and promote competition. **Industrial regulation** consists of government regulation of firms' prices (or "rates") within selected industries. **Social regulation** is government regulation of the conditions under which goods are produced, the physical characteristics of goods, and the impact of the production and consumption of goods on society.

Then, in the remaining four chapters of Part 9, we discuss issues and policies relating to agriculture, income inequality, labor markets (unions, discrimination, and immigration), and health care.

The Antitrust Laws

The underlying purpose of antitrust policy (antimonopoly policy) is to prevent monopolization, promote competition, and achieve allocative efficiency. Although all economists would agree that these are meritorious goals, there is sharp conflict of opinion about the appropriateness and effectiveness of U.S. antitrust policy. As we will see, antitrust policy over the years has been neither clear-cut nor consistent.

Historical Background

Just after the U.S. Civil War (1861–1865), local markets widened into national markets because of improved transportation facilities, mechanized production methods, and sophisticated corporate structures. In the 1870s and 1880s, dominant firms formed in several industries, including petroleum, meatpacking, railroads, sugar, lead, coal, whiskey, and tobacco. Some of these oligopolists, near-monopolists, or monopolists were known as *trusts*—business combinations that assign control to a single decision group ("trustees"). Because these trusts "monopolized" industries, the word "trust" became synonymous with "monopoly" in common usage. The public, government, and historians began to define a business monopoly as a large-scale dominant seller, even though that seller was not always "a sole seller" as specified in the model of pure monopoly.

These dominant firms often used questionable tactics in consolidating their industries and then charged high prices to customers and extracted price concessions from resource suppliers. Farmers and owners of small businesses were particularly vulnerable to the power of large corporate monopolies and were among the first to oppose them. Consumers, labor unions, and economists were not far behind in their opposition.

The main economic case against monopoly is familiar to you from Chapter 24. Monopolists tend to produce less output and charge higher prices than would be the case if their industries were competitive. With pure competition, production occurs where $P = \text{MC}$. This equality represents an efficient allocation of resources because P measures the marginal benefit to society of an extra unit of output while marginal cost MC reflects the cost of an extra unit. When $P = \text{MC}$, society cannot gain by producing 1 more or 1 less unit of the product. In contrast, a monopolist maximizes profit by equating marginal revenue (not price) with marginal cost. At this $\text{MR} = \text{MC}$ point, price exceeds marginal cost, meaning that society would obtain more benefit than it would incur cost by producing extra units. There is an underallocation of resources to the monopolized product, and so the economic well-being of society is less than it would be with greater competition.

Government concluded in the late 1800s and early 1900s that market forces in monopolized industries did not provide sufficient control to protect consumers, achieve fair competition, and achieve allocative efficiency. So it instituted two alternative means of control as substitutes for, or supplements to, market forces:

- ***Regulatory agencies*** In the few markets where the nature of the product or technology creates a *natural monopoly*, the government established public regulatory agencies to control economic behavior.
- ***Antitrust laws*** In most other markets, social control took the form of antitrust (antimonopoly) legislation designed to inhibit or prevent the growth of monopoly.

Four particular pieces of Federal legislation, as refined and extended by various amendments, constitute the basic law relating to monopoly structure and conduct.

Sherman Act of 1890

The public resentment of trusts that emerged in the 1870s and 1880s culminated in the **Sherman Act** of 1890. This cornerstone of antitrust legislation is surprisingly brief and, at first glance, directly to the point. The core of the act resides in two provisions:

- ***Section 1*** Every contract, combination in the form of a trust or otherwise, or conspiracy, in restraint of trade or commerce among the several states, or with foreign nations is hereby declared to be illegal.
- ***Section 2*** Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any person or persons, to monopolize any part of the trade or commerce among the several states, or with foreign nations, shall be deemed guilty of a felony (as later amended from "misdemeanor").

The Sherman Act thus outlawed *restraints of trade* (for example, collusive price fixing and dividing up markets) as well as *monopolization.* Today, the U.S. Department of Justice, the Federal Trade Commission, injured private parties, or state attorney generals can file antitrust suits against alleged violators of the act. The courts can issue injunctions to prohibit anticompetitive practices or, if necessary, break up monopolists into competing firms. Courts can also fine and imprison violators. Further, parties injured by illegal combinations and conspiracies can sue the perpetrators for *treble damages*—awards of three times the amount of the monetary injury done to them.

The Sherman Act seemed to provide a sound foundation for positive government action against business monopolies. However, early court interpretations limited the scope of the act and created ambiguities of law. It became clear that a more explicit statement of the government's antitrust sentiments was needed. The business community itself sought a clearer statement of what was legal and what was illegal.

Clayton Act of 1914

The **Clayton Act** of 1914 contained the desired elaboration of the Sherman Act. Four sections of the act, in particular, were designed to strengthen and make explicit the intent of the Sherman Act:

- Section 2 outlaws *price discrimination* when such discrimination is not justified on the basis of cost differences and when it reduces competition.
- Section 3 prohibits **tying contracts,** in which a producer requires that a buyer purchase another (or others) of its products as a condition for obtaining a desired product.
- Section 7 prohibits the acquisition of stocks of competing corporations when the outcome would be less competition.
- Section 8 prohibits the formation of **interlocking directorates**—situations where a director of one firm is also a board member of a competing firm—in large corporations where the effect would be reduced competition.

The Clayton Act simply sharpened and clarified the general provisions of the Sherman Act. It also sought to outlaw the techniques that firms might use to develop monopoly power and, in that sense, was a preventive measure. Section 2 of the Sherman Act, by contrast, was aimed more at breaking up existing monopolies.

Federal Trade Commission Act of 1914

The **Federal Trade Commission Act** created the five-member Federal Trade Commission (FTC), which has joint Federal responsibility with the U.S. Justice Department for enforcing the antitrust laws. The act gave the FTC the power to investigate unfair competitive practices on its own initiative or at the request of injured firms. It can hold public hearings on such complaints and, if necessary, issue **cease-and-desist orders** in cases where it discovers "unfair methods of competition in commerce."

The **Wheeler-Lea Act** of 1938 gave the FTC the additional responsibility of policing "deceptive acts or practices in commerce." In so doing, the FTC tries to protect the public against false or misleading advertising and the misrepresentation of products. So the Federal Trade Commission Act, as modified by the Wheeler-Lea Act, (1) established the FTC as an independent antitrust agency and (2) made unfair and deceptive sales practices illegal.

Celler-Kefauver Act of 1950

The **Celler-Kefauver Act** amended the Clayton Act, Section 7, which prohibits a firm from merging with a competing firm (and thereby lessening competition) by acquiring its stock. Firms could evade Section 7, however, by instead acquiring the physical assets (plant and equipment) of competing firms. The Celler-Kefauver Act closed that loophole by prohibiting one firm from obtaining the physical assets of another firm when the effect would be reduced competition. Section 7 of the Clayton Act now prohibits anticompetitive mergers no matter how they are undertaken. **(Key Question 2)**

Antitrust Policy: Issues and Impacts

The effectiveness of any law depends on how the courts interpret it and on the vigor of government enforcement. The courts have been inconsistent in interpreting the antitrust laws. At times, they have applied them vigorously, adhering closely to their spirit and objectives. At other times, their interpretations have rendered certain laws nearly powerless. The Federal government itself has varied considerably in its willingness to apply the antitrust laws. Administrations holding a laissez-faire philosophy about monopoly have sometimes ignored them or have reduced the budgets of the enforcement agencies.

Issues of Interpretation

Differences in judicial interpretations have led to vastly different applications of the antitrust laws. Two questions, in particular, have arisen: (1) Should the focus of antitrust policy be on monopoly behavior or on monopoly structure? (2) How broadly should markets be defined in antitrust cases?

Monopoly Behavior versus Monopoly Structure

A comparison of three landmark Supreme Court decisions reveals two distinct interpretations of Section 2 of the Sherman Act as it relates to monopoly behavior and structure.

In the 1911 **Standard Oil case,** the Supreme Court found Standard Oil guilty of monopolizing the petroleum industry through a series of abusive and anticompetitive actions. The Court's remedy was to divide Standard Oil into several competing firms. But the Standard Oil case left open an important question: Is every monopoly in violation of Section 2 of the Sherman Act or just those created or maintained by anticompetitive actions?

In the 1920 **U.S. Steel case,** the courts established a **rule of reason,** saying that not every monopoly is illegal. Only monopolies that "unreasonably" restrain trade violate Section 2 of the Sherman Act and are subject to antitrust action. Size alone was not an offense. Although U.S. Steel clearly possessed monopoly power, it was innocent of "monopolizing" because it had not resorted to illegal acts against competitors in obtaining that power nor had it unreasonably used its monopoly power. Unlike Standard Oil, which was a so-called bad trust, U.S. Steel was a "good trust" and therefore not in violation of the law.

In the **Alcoa case** of 1945 the courts touched off a 20-year turnabout. The Supreme Court sent the case to the U.S. court of appeals in New York because four of the Supreme Court justices had been involved with litigation of the case before their appointments. Led by Judge Hand the court of appeals held that, even though a firm's behavior might be legal, the mere possession of monopoly power (Alcoa held 90 percent of the aluminum ingot market) violated the antitrust laws. So Alcoa was found guilty of violating the Sherman Act.

These two cases point to a controversy in antitrust policy. Should a firm be judged by its behavior (as in the U.S. Steel case) or by its structure, or market share (as in the Alcoa case)?

"Structuralists" say that a firm with a very high market share will behave like a monopolist. Since the economic performance of such firms will be undesirable, they are legitimate targets for antitrust action. Changes in the structure of the industry, say, by splitting the monopolist into several smaller firms, will improve behavior and performance.

"Behavioralists" assert that the relationship between structure, behavior, and performance is tenuous and unclear. They feel a monopolized or highly concentrated industry may be technologically progressive and have a good record of providing products of increasing quality at reasonable prices. If a firm has served society well and has engaged in no anticompetitive practices, it should not be accused of antitrust violation just because it has an extraordinarily large market share. That share may be the product of superior technology, superior products, and economies of scale. "Why use antitrust laws to penalize efficient, technologically progressive, well-managed firms?" they ask.

Over the past 20 years, the courts have returned to the rule of reason, and most contemporary economists and antitrust enforcers reject strict structuralism. For instance, in 1982 the government dropped its 13-year-long monopolization case against IBM on the grounds that IBM had not unreasonably restrained trade. More recently, the government has made no attempt to break up Intel's monopoly in the sale of microcircuits for personal computers. And in prosecuting the Microsoft case (the subject of this chapter's Last Word), the Federal government made it clear that the behavior used by Microsoft to maintain and extend its monopoly, not the presence of its large market share, violated the Sherman Act. That is, the goverment in effect declared Microsoft "a bad monopoly."

The Relevant Market Courts often decide whether or not market power exists by considering the share of the market held by the dominant firm. If the market is defined broadly to include a wide range of somewhat similar products, the firm's market share will appear small. If the market is defined narrowly to exclude such products, the market share will seem large. The Supreme Court's task is to determine how broadly to define relevant markets, and it has not always been consistent.

In the Alcoa case, the Court used a narrow definition of the relevant market: the aluminum ingot market. But in the **DuPont cellophane case** of 1956 the Court defined the market very broadly. The government contended that DuPont, along with a licensee, controlled 100 percent of the cellophane market. But the Court accepted DuPont's contention that the relevant market included all "flexible packaging materials"—waxed paper, aluminum foil, and so forth, in addition to cellophane. Despite DuPont's monopoly in the "cellophane market," it controlled only 20 percent of the market for "flexible wrapping materials." The Court ruled that this did not constitute a monopoly.

Issues of Enforcement

Some U.S. presidential administrations have enforced the antitrust laws more strictly than others. The degree of Federal antitrust enforcement makes a difference in the overall degree of antitrust action in the economy. It is true that individual firms can sue other firms under the antitrust laws, but major antitrust suits often last years and are highly expensive. Injured parties therefore often look to the Federal government to initiate and litigate such cases. Once the Federal government gains a conviction, the injured parties no longer need to prove guilt and can simply sue the violator to obtain treble damages. In many cases, lack of Federal antitrust action therefore means diminished legal action by firms.

Why might one administration enforce the antitrust laws more or less strictly than another? The main reason is differences in political philosophies about the market economy and the wisdom of intervention by government. There are two contrasting general perspectives on antitrust policy.

The *active antitrust perspective* is that competition is insufficient in some circumstances to achieve allocative efficiency and ensure fairness to consumers and competing firms. Firms occasionally use illegal tactics against competitors to dominate markets. In other instances, competitors collude to fix prices or merge to enhance their monopoly power. Active, strict enforcement of the antitrust laws is needed to stop illegal business practices, prevent anticompetitive mergers, and remedy monopoly. This type of government intervention maintains the viability and vibrancy of the market system and thus allows society to reap its full benefits. In this view, the antitrust authorities need to act much like the officials in a football game. They must observe the players, spot infractions, and enforce the rules.

In contrast, the *laissez-faire perspective* holds that antitrust intervention is largely unnecessary, particularly as it relates to monopoly. Economists holding this position view competition as a long-run dynamic process in which firms battle against each other for dominance of markets. In some markets, a firm successfully monopolizes the market, usually because of its superior innovativeness or business skill. But in exploiting its monopoly power to raise prices, these firms inadvertently create profit incentives and profit opportunities for other entrepreneurs and firms to develop alternative technologies and new products to better serve consumers. A process of *creative destruction* (review

Chapter 26) occurs, in which today's monopolies are eroded and eventually destroyed by tomorrow's technologies and products. The government therefore should not try to break up monopoly. It should stand aside and allow the long-run competitive process to work.

32.1 Creative destruction

The extent to which a particular administration adheres to—or leans toward—one of these contrasting antitrust perspectives usually gets reflected in the appointments to the agencies overseeing antitrust policy. Those appointees help determine the degree of strictness in enforcement of the laws.

Effectiveness of Antitrust Laws

Have the antitrust laws been effective? Although this question is difficult to answer, we can at least observe how the laws have been applied to monopoly, mergers, price fixing, price discrimination, and tying contracts.

Monopoly On the basis of the rule of reason, the government has generally been lenient in applying antitrust laws to monopolies that have developed naturally. Generally, a firm will be sued by the Federal government only if it has a very high market share and there is evidence of abusive conduct in achieving, maintaining, or extending its market dominance.

Since the 1980s there have been two particularly noteworthy monopoly cases in which the issue of remedy arose. The first was the AT&T (American Telephone and Telegraph) case in which the government charged AT&T with violating the Sherman Act by engaging in anticompetitive practices designed to maintain its domestic telephone monopoly. As part of an out-of-court settlement between the government and AT&T, in 1982 AT&T agreed to divest itself of its 22 regional telephone-operating companies.

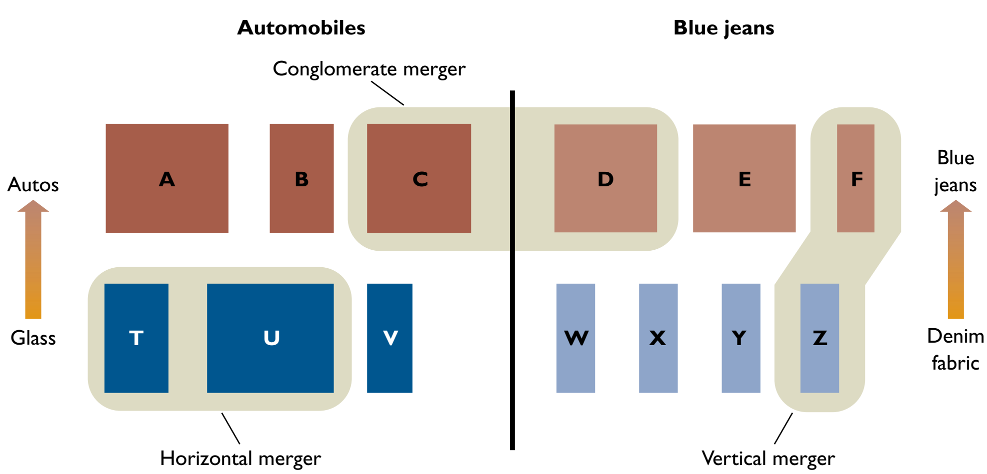
A second significant monopoly case was the **Microsoft case.** In 2000 Microsoft was found guilty of violating the Sherman Act by taking several unlawful actions designed to maintain its monopoly of operating systems for personal computers. A lower court ordered that Microsoft be split into two competing firms. A court of appeals upheld the lower-court finding of abusive monopoly but rescinded the breakup of Microsoft. Instead of the structural remedy, the eventual outcome was a behavioral remedy in which Microsoft was prohibited from engaging in a set of specific anticompetitive business practices.

Mergers The treatment of mergers, or combinations of existing firms, varies with the type of merger and its effect on competition.

Merger Types There are three basic types of mergers, as represented in Figure 32.1. This figure shows two stages of production (the input stage and the output, or final-product, stage) for two distinct final-goods industries (autos and blue jeans). Each rectangle (A, B, C, . . . X, Y, Z) represents a particular firm.

FIGURE 32.1

Types of mergers. Horizontal mergers (T + U) bring together firms selling the same product in the same geographic market; vertical mergers (F + Z) connect firms having a buyer-seller relationship; and conglomerate mergers (C + D) join firms in different industries or firms operating in different geographic areas.



A **horizontal merger** is *a merger between two competitors that sell similar products in the same geographic market.* In Figure 32.1 this type of merger is shown as a combination of glass producers T and U. Actual examples of such mergers include Chase Manhattan's merger with Chemical Bank, Boeing's merger with McDonnell Douglas, and Exxon's merger with Mobil.

A **vertical merger** is *a merger between firms at different stages of the production process.* In Figure 32.1, the merger between firm Z, a producer of denim fabric, and firm F, a producer of blue jeans, is a vertical merger. Vertical mergers are mergers between firms that have buyer-seller relationships. Actual examples of such mergers are PepsiCo's mergers with Pizza Hut, Taco Bell, and Kentucky Fried Chicken. PepsiCo supplies soft drinks to each of these fast-food outlets. (In 1997, PepsiCo spun off these entities into a separate company now called Yum! Brands.)

A **conglomerate merger** is officially defined as *any merger that is not horizontal or vertical; in general, it is the combination of firms in different industries or firms operating in different geographic areas.* Conglomerate mergers can extend the line of products sold, extend the territory in which products are sold, or combine totally unrelated companies. In Figure 32.1, the merger between firm C, an auto manufacturer, and firm D, a blue jeans producer, is a conglomerate merger. Real-world examples of conglomerate mergers include the merger between Walt Disney Company (movies) and the American Broadcasting Company (radio and television) and the merger between America Online (Internet service provider) and Time Warner (communications).

Merger Guidelines: The Herfindahl Index The Federal government has established very loose merger guidelines based on the Herfindahl index. Recall from Chapter 25 that this measure of concentration is the sum of the squared percentage market shares of the firms within an industry. An industry of only four firms, each with a 25 percent market share, has a Herfindahl index of 2500 ($= 25^2 + 25^2 + 25^2 + 25^2$). In pure competition, where each firm's market share is minuscule, the index approaches 0 ($= 0^2 + 0^2 + \ldots + 0^2$). In pure monopoly, the index for that single firm is 10,000 ($= 100^2$).

The U.S. government uses Section 7 of the Clayton Act to block horizontal mergers that will substantially lessen competition. It is likely to challenge a horizontal merger if the postmerger Herfindahl index would be high (above 1800) and if the merger has substantially increased the index (added 100 or more points). However, other factors, such as economies of scale, the degree of foreign competition, and the ease of entry of new firms, are also considered. Furthermore, horizontal mergers are usually allowed if one of the merging firms is suffering major and continuing losses. (This is one reason Boeing was allowed to acquire McDonnell Douglas in 1996: MD was losing money in producing its commercial airplanes.)

In recent years, the Federal government has blocked several proposed horizontal mergers. For example, it blocked the mergers between Staples and Office Depot, two major office-supply retailers, and between WorldCom and Sprint, two competing telecommunications firms.

Most *vertical mergers* escape antitrust prosecution because they do not substantially lessen competition in either of the two markets. (In Figure 32.1 neither the Herfindahl index in the industry producing denim fabric nor the index in the blue jeans industry changes when firms Z and F merge vertically.) However, a vertical merger between large firms in highly concentrated industries may be challenged. For example, in 1999 the threat of FTC action spurred Barnes & Noble to abandon its merger with Ingram Book group, the nation's largest book wholesaler. The merger would have enabled Barnes & Noble to set the wholesale price of books charged to its direct retail competitors such as Borders and Amazon.com.

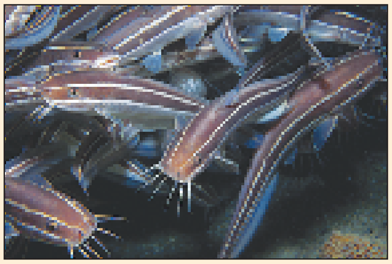
Conglomerate mergers are generally permitted. If an auto manufacturer acquires a blue jeans producer, no antitrust action is likely, since neither firm has increased its own market share as a result. That means the Herfindahl index remains unchanged in each industry. **(Key Question 5)**

Price Fixing Price fixing is treated strictly. Evidence of price fixing, even by small firms, will bring antitrust action, as will other collusive activities such as scheming to rig bids on government contracts or dividing up sales in a market. In antitrust law, these activities are known as **per se violations;** they are "in and of themselves" illegal, and therefore are *not* subject to the rule of reason. To gain a conviction, the government or other party making the charge need show only that there was a conspiracy to fix prices, rig bids, or divide up markets, not that the conspiracy succeeded or caused serious damage to other parties.

Price-fixing investigations and court actions are common. We list several recent price-fixing cases in the Consider This box on the next page.

Price Discrimination Price discrimination is a common business practice that rarely reduces competition and therefore is rarely challenged by government. The exception occurs when a firm engages in price discrimination as part of a strategy to block entry or drive out competitors.

CONSIDER THIS . . .



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Of Catfish and Sneakers (and Other Things in Common)

There are many recent examples of price fixing. Here are just a few:

- Archer Daniels Midland (ADM) and other agribusinesses admitted fixing the prices of an additive to livestock feed, citric acid, and a sweetener made from corn.
- ConAgra and Hormel agreed to pay more than $21 million to settle their roles in a nationwide price-fixing case involving catfish.
- Reebok agreed to pay nearly $10 million in damages to settle a lawsuit in which it was accused of fixing the minimum price retailers could charge for footwear.
- The U.S. Justice Department fined UCAR International $110 million for scheming with competitors to fix prices and divide the world market for graphite electrodes used in steel mills.
- The auction houses Sotheby's and Christy's were found guilty of conspiring over a 6-year period to set the same commission rates for sellers at auctions.
- The music industry agreed to pay $143 million to settle a price-fixing case involving "minimum advertised prices" on compact discs.

Tying Contracts The Federal government strictly enforces the prohibition of tying contracts, particularly when practiced by dominant firms. For example, it stopped movie distributors from forcing theaters to buy the projection rights to a full package of films as a condition of showing a blockbuster movie. Also, it prevented Kodak—the dominant maker of photographic film—from requiring that consumers process their film only through Kodak.

What then can we conclude about the overall effectiveness of antitrust laws? Antitrust policy has not been very effective in restricting the rise of or in breaking up monopolies or oligopolies resulting from legally undertaken internal expansions of firms. But most economists do not deem that to be a flaw. The antitrust laws have been used more effectively against predatory or abusive monopoly, but that effectiveness has been diminished by the slow legal process and consequently long time between the filing of charges and the implementation of remedies. In contrast, antitrust policy *has* been effective in blocking blatantly anticompetitive mergers and in identifying and prosecuting price fixing and tying contracts.

Most economists conclude that, overall, U.S. antitrust policy has been moderately effective in achieving its goal of promoting competition and efficiency. Much of the success of antitrust policy arises from its deterrent effect on price fixing and anticompetitive mergers. Some economists, however, think that enforcement of antitrust laws has been too weak. Others believe that parts of U.S. antitrust policy are anachronistic in an era of rapidly changing technology that continuously undermines existing monopoly power.

QUICK REVIEW 32.1

- The Sherman Act of 1890 outlaws restraints of trade and monopolization; the Clayton Act of 1914 as amended by the Celler-Kefauver Act of 1950 outlaws price discrimination (when anticompetitive), tying contracts, anticompetitive mergers, and interlocking directorates.
- The Federal Trade Commission Act of 1914 as bolstered by the Wheeler-Lea Act of 1938 created the Federal Trade Commission (FTC) and gave it authority to investigate unfair methods of competition and deceptive acts or practices in commerce.
- "Structuralists" say highly concentrated industries will behave like monopolists; "behaviorists" hold that the relationship between industry structure and firm behavior is uncertain.
- The degree of strictness of enforcement of antitrust laws depends on the general antitrust philosophy of the U.S. administration and its appointees.
- Government treats existing monopoly relatively leniently, as long as it is not abusive; blocks most horizontal mergers between dominant, profitable firms in highly concentrated industries; and vigorously prosecutes price fixing and tying contracts.

Industrial Regulation

Antitrust policy assumes that society will benefit if monopoly is prevented from evolving or if it is dissolved where it already exists. We now return to a special situation in which there is an economic reason for an industry to be organized monopolistically.

Natural Monopoly

A **natural monopoly** exists when economies of scale are so extensive that a single firm can supply the entire market at a lower unit cost than could a number of competing firms. Clear-cut circumstances of natural monopoly are relatively rare, but such conditions exist for many *public utilities*, such as local electricity, water, natural gas, and telephone providers. As we discussed in Chapter 24, large-scale operations in some cases are necessary to obtain low unit costs and a low product price. Where there is natural monopoly, competition is uneconomical. If the market were divided among many producers, economies of scale would not be achieved and unit costs and prices would be higher than necessary.

There are two possible alternatives for promoting better economic outcomes where natural monopoly exists. One is public ownership, and the other is public regulation.

Public ownership or some approximation of it has been established in a few instances. Examples: the Postal Service, the Tennessee Valley Authority, and Amtrak at the national level and mass transit, water supply systems, and garbage collection at the local level.

But *public regulation*, or what economists call *industrial regulation*, has been the preferred option in the United States. In this type of regulation, government commissions regulate the prices (usually called "rates") charged by natural monopolists. Table 32.1 lists the two major Federal regulatory commissions and their jurisdictions. It also notes that all 50 states have commissions that regulate the intrastate activities and "utility rates" of remaining natural monopolies.

The economic objective of industrial regulation is embodied in the **public interest theory of regulation.** In that theory, industrial regulation is necessary to keep a natural monopoly from charging monopoly prices and thus harming consumers and society. The goal of such regulation is to garner for society at least part of the cost reductions associated with natural monopoly while avoiding the restrictions of output and high prices associated with unregulated monopoly. If competition is inappropriate or impractical, society should allow or even encourage a monopoly but regulate its prices. Regulation should then be structured so that ratepayers benefit from the economies of scale—the lower per-unit costs—that natural monopolists are able to achieve.

In practice, regulators seek to establish rates that will cover production costs and yield a "fair" return to the enterprise. The goal is to set price equal to average total cost so that the regulated firm receives a normal profit, as described in the "Regulated Monopoly" section of Chapter 24. In particular, you should carefully review Figure 24.9.

TABLE 32.1

The Main Regulatory Commissions Providing Industrial Regulation

Commission (Year Established)	Jurisdiction
Federal Energy Regulatory Commission (1930)*	Electricity, gas, gas pipelines, oil pipelines, water-power sites
Federal Communications Commission (1934)	Telephones, television, cable television, radio, telegraph, CB radios, ham operators, etc.
State public utility commissions (50 states)	Electricity, gas, telephones

*Originally called the Federal Power Commission; renamed in 1977.

Problems with Industrial Regulation

There is considerable disagreement on the effectiveness of industrial regulation. Let's examine two criticisms.

Costs and Inefficiency An unregulated firm has a strong incentive to reduce its costs at each level of output because that will increase its profit. The regulatory commission, however, confines the regulated firm to a normal profit or a "fair return" on the value of its assets. If a regulated firm lowers its operating costs, the rising profit eventually will lead the regulatory commission to require that the firm lower its rates in order to return its profits to normal. The regulated firm therefore has little or no incentive to reduce its operating costs.

Worse yet, higher costs do not result in lower profit. Because the regulatory commission must allow the public utility a fair return, the regulated monopolist can simply pass through higher production costs to consumers by charging higher rates. A regulated firm may reason that it might as well have high salaries for its workers, opulent working conditions for management, and the like, since the "return" is the same in percentage terms whether costs are minimized or not. So, although a natural monopoly reduces cost through economies of scale, industrial regulation fosters considerable X-inefficiency (Figure 24.7). Due to the absence of competition, the potential cost savings from natural monopoly may never actually materialize.

Perpetuating Monopoly A second general problem with industrial regulation is that it sometimes perpetuates monopoly long after the conditions of natural monopoly have ended.

Technological change often creates the potential for competition in at least some or all portions of the regulated industry. Examples: Trucks began competing with railroads; transmission of voice and data by microwave and satellites began competing with transmission over telephone wires; satellite television began competing with cable television; and cell phones began competing with regular phones.

But spurred by the firms they regulate, commissions often protect the regulated firms from new competition by either blocking entry or extending regulation to competitors. Industrial regulation therefore may perpetuate a monopoly that is no longer a natural monopoly and would otherwise erode. Ordinary monopoly, protected by government, may supplant natural monopoly. If so, the regulated prices may exceed those that would occur with competition. The beneficiaries of outdated regulation are the regulated firms and their employees. The losers are consumers and the potential entrants.

Example: Regulation of the railroads by the Interstate Commerce Commission (ICC) was justified in the late 1800s and early 1900s. But by the 1930s, with the emergence of a network of highways, the trucking industry had seriously undermined the monopoly power of the railroads. That is, for the transport of many goods over many routes, railroad service was no longer a natural monopoly. At that time it would have been desirable to dismantle the ICC and let railroads and truckers, along with barges and airlines, compete with one another. Instead, in the 1930s the ICC extended regulation of rates to interstate truckers. The ICC remained in place until its elimination in 1996.

Second example: Until recently, unregulated long-distance telephone companies such as AT&T and MCI have been prohibited from offering local telephone services in competition with regulated local and regional telephone companies. But the very fact that these and other firms wanted to compete with regulated monopolies calls into question whether those local providers are in fact natural monopolies or, rather, are government-protected monopolies. **(Key Question 10)**

Legal Cartel Theory

The regulation of potentially competitive industries has produced the **legal cartel theory of regulation.** In place of having socially minded officials forcing regulation on natural monopolies to protect consumers, holders of this view see practical politicians "supplying" regulation to local, regional, and national firms that fear the impact of competition on their profits or even on their long-term survival. These firms desire regulation because it yields a legal monopoly that can virtually guarantee a profit. Specifically, the regulatory commission performs such functions as blocking entry (for example, in local telephone service). Or, where there are several firms, the commission divides up the market much like an illegal cartel (for example, prior to airline deregulation, the Civil Aeronautics Board assigned routes to specific airlines). The commission may also restrict potential competition by enlarging the "cartel" (for example, the ICC's addition of trucking to its regulatory domain).

While private cartels are illegal and unstable and often break down, the special attraction of a government-sponsored cartel under the guise of regulation is that it endures. The legal cartel theory of regulation suggests that regulation results from the rent-seeking activities of private firms and the desire of politicians to be responsive (Chapter 31).

Proponents of the legal cartel theory of regulation note that the Interstate Commerce Commission was welcomed by the railroads and that the trucking and airline industries both supported the extension of ICC regulation to their industries, arguing that unregulated competition was severe and destructive.

Occupational licensing is a labor market application of the legal cartel theory. Certain occupational groups—barbers, dentists, hairstylists, interior designers, dietitians, lawyers—demand stringent licensing on the grounds that it protects the public from charlatans and quacks. But skeptics say the real reason may be to limit entry into the occupational group so that practitioners can receive monopoly incomes. It is not surprising to these skeptics that a recent study found that, other things equal, dental fees were about 15 percent higher and dentists' income 10 percent higher in states with the most restrictive licensing laws compared to states with the least restricitive laws. The quality of dentistry apparently was not affected.[1]

Deregulation

Beginning in the 1970s, evidence of inefficiency in regulated industries and the contention that the government was regulating potentially competitive industries contributed to a wave of deregulation. Since then, Congress and many state legislatures have passed legislation that has deregulated in varying degrees the airline, trucking, banking, railroad, natural gas, television, and electricity industries. Deregulation has also occurred in the telecommunications industry, where antitrust authorities dismantled the

[1]Morris Kleiner and Robert Kudrle, "Does Regulation Affect Economic Outcomes? The Case of Dentistry," *Journal of Law and Economics*, October 2000, pp. 547–582.

regulated monopoly known as the Bell System (AT&T). Deregulation in the 1970s and 1980s was one of the most extensive experiments in economic policy to take place during the last 50 years.

While there are still some critics of deregulation, most economists believe that deregulation has clearly benefited consumers and the economy. Studies reveal that deregulation of formerly regulated industries is contributing more than $50 billion annually to society's well-being through lower prices, lower costs, and increased output.[2] Most of those gains are accruing in three industries: airlines, railroads, and trucking. Airfares (adjusted for inflation) have declined by about one-third, and airline safety has continued to improve. Trucking and railroad freight rates (again, adjusted for inflation) have dropped by about one-half.

Significant efficiency gains also have occurred in long-distance telecommunications, and there have been slight efficiency gains in cable television, stock brokerage services, and the natural gas industry. Moreover, deregulation has unleashed a wave of technological advances that have resulted in such new and improved products and services as fax machines, cellular phones, fiber-optic cable, microwave systems in communications, and the Internet.

The most recent and perhaps controversial industry to be deregulated is electricity. Deregulation is relatively advanced at the wholesale level, where firms can buy and sell electricity at market prices. They are also free to build generating facilities and sell electricity to local electricity providers at unregulated prices. In addition, several states have deregulated retail prices and encouraged households and businesses to choose among available electricity suppliers. This competition has generally lowered electricity rates for consumers and enhanced allocative efficiency.

But deregulation suffered a severe setback in California, where wholesale electricity prices, but not retail rates, were deregulated. Wholesale electricity prices surged in 2001 when California experienced electricity shortages. Because they could not pass on wholesale price increases to consumers, California electric utilities suffered large financial losses. California has recently filed lawsuits against several energy-trading companies that allegedly manipulated electricity supplies to boost the wholesale price of electricity during the California energy crisis. One multibillion-dollar energy trader—Enron—collapsed in 2002 when Federal investigators uncovered a pattern of questionable and fraudulent business and accounting practices.

The California deregulation debacle and the Enron collapse have muddied the overall assessment of electricity deregulation in the United States. It is simply far too soon to declare deregulation either a success or a failure.

[2]Clifford Winston, "Economic Deregulation: Days of Reckoning for Microeconomists," *Journal of Economic Literature*, September 1993, p. 1284; and Robert Crandall and Jerry Ellig, "Economic Deregulation and Consumer Choice," Center for Market Processes, Fairfax, Virginia.

QUICK REVIEW 32.2

- Natural monopoly occurs where economies of scale are so extensive that only a single firm can produce the product at minimum average total cost.
- The public interest theory of regulation says that government must regulate natural monopolies to prevent abuses arising from monopoly power. Regulated firms, however, have less incentive than competitive firms to reduce costs. That is, regulated firms tend to be X-inefficient.
- The legal cartel theory of regulation suggests that some firms seek government regulation to reduce price competition and ensure stable profits.
- Deregulation initiated by government in the past three decades has yielded large annual efficiency gains for society.

Social Regulation

The industrial regulation discussed in the preceding section has focused on the regulation of prices (or rates) in natural monopolies. But in the early 1960s a new type of regulation began to emerge. This *social regulation* is concerned with the conditions under which goods and services are produced, the impact of production on society, and the physical qualities of the goods themselves.

The Federal government carries out most of the social regulation, although states also play a role. In Table 32.2 we list the main Federal regulatory commissions engaged in social regulation.

Distinguishing Features

Social regulation differs from industrial regulation in several ways.

First, social regulation applies to far more firms than does industrial regulation. Social regulation is often applied "across the board" to all industries and directly affects more producers than does industrial regulation. For instance, while the industrial regulation of the Federal Energy Regulatory Commission (FERC) applies to a relatively small number of firms, Occupational Safety and

TABLE 32.2

The Main Federal Regulatory Commissions Providing Social Regulation

Commission (Year Established)	Jurisdiction
Food and Drug Administration (1906)	Safety and effectiveness of food, drugs, and cosmetics
Equal Employment Opportunity Commission (1964)	Hiring, promotion, and discharge of workers
Occupational Safety and Health Administration (1971)	Industrial health and safety
Environmental Protection Agency (1972)	Air, water, and noise pollution
Consumer Product Safety Commission (1972)	Safety of consumer products

Health Administration (OSHA) rules and regulations apply to firms in all industries.

Second, social regulation intrudes into the day-to-day production process to a greater extent than industrial regulation. While industrial regulation focuses on rates, costs, and profits, social regulation often dictates the design of products, the conditions of employment, and the nature of the production process. As examples, the Consumer Product Safety Commission (CPSC) regulates the design of potentially unsafe products, and the Environmental Protection Agency (EPA) regulates the amount of pollution allowed during production.

Finally, social regulation has expanded rapidly during the same period in which industrial regulation has waned. Between 1970 and 1980, the U.S. government created 20 new social regulatory agencies. More recently, Congress has established new social regulations to be enforced by existing regulatory agencies. For example, the Equal Employment Opportunity Commission, which is responsible for enforcing laws against workplace discrimination on the basis of race, gender, age, or religion, has been given the added duty of enforcing the Americans with Disabilities Act of 1990. Under this social regulation, firms must provide reasonable accommodations for qualified workers and job applicants with disabilities. Also, sellers must provide reasonable access for customers with disabilities.

The names of the regulatory agencies in Table 32.2 suggest the reasons for their creation and growth: As much of our society had achieved a fairly affluent standard of living by the 1960s, attention shifted to improvement in the nonmaterial quality of life. That focus called for safer products, less pollution, improved working conditions, and greater equality of economic opportunity.

The Optimal Level of Social Regulation

While economists agree on the need for social regulation, they disagree on whether or not the current level of such regulation is optimal. Recall that an activity should be expanded as long as its marginal benefit (MB) exceeds its marginal cost (MC). If the MB of social regulation exceeds its MC, then there is too little social regulation. But if MC exceeds MB, there is too much (review Figure 30.6). Unfortunately, the marginal costs and benefits of social regulation are not always easy to measure and therefore may be illusive. So ideology about the proper size and role of government often drives the debate over social regulation as much as, or perhaps more than, economic cost-benefit analysis.

In Support of Social Regulation Defenders of social regulation say that it has achieved notable successes and, overall, has greatly enhanced society's well-being. They point out that the problems that social regulation confronts are serious and substantial. According to the National Safety Council, about 5000 workers die annually in job-related accidents and 3.8 million workers suffer injuries that force them to miss a day or more of work. Air pollution continues to cloud major U.S. cities, imposing large costs in terms of reduced property values and increased health care expense. Numerous children and adults die each year because of poorly designed or manufactured products (for example, car tires) or tainted food (for example, *E. coli* in beef). Discrimination against some ethnic and racial minorities, persons with disabilities, and older workers reduces their earnings and imposes heavy costs on society.

Proponents of social regulation acknowledge that social regulation is costly. But they correctly point out that a high "price" for something does not necessarily mean that it should not be purchased. They say that the appropriate economic test should be not whether the costs of social regulation are high or low but, rather, whether the benefits of social regulation exceed the costs. After decades of neglect, they further assert, society cannot expect to cleanse the environment, enhance the safety of the workplace, and promote economic opportunity for all without incurring substantial costs. So statements about the huge costs of social regulation are irrelevant, say defenders, since the benefits are even greater. The public often underestimates those benefits, since they are more difficult to measure than costs and often become apparent only after some time has passed (for example, the benefits of reducing global warming).

Proponents of social regulation point to its many specific benefits. Here are just a few examples: It is estimated that highway fatalities would be 40 percent greater annually in the absence of auto safety features mandated through regulation. Compliance with child safety-seat and seat belt laws has significantly reduced the auto fatality rate for small children. The national air quality standards set by law have been reached in nearly all parts of the nation for sulfur dioxide, nitrogen dioxide, and lead. Moreover, recent studies clearly link cleaner air, other things equal, with increases in the values of homes. Affirmative action regulations have increased the labor demand for racial and ethnic minorities and females. The use of childproof lids has resulted in a 90 percent decline in child deaths caused by accidental swallowing of poisonous substances.

Some defenders of social regulation say there are many remaining areas in which greater regulation would generate net benefits to society. For instance, some call for greater regulation of the meat, poultry, and seafood industries to improve food safety. Others favor greater regulation of health care organizations and insurance companies to ensure "patients' rights" for consumers of health care services. Still others say that more regulation is needed to ensure that violent movies, CDs, and video games are not marketed to children.

Advocates of social regulation say that the benefits of such regulation are well worth the considerable costs. The costs are simply the price we must pay to create a hospitable, sustainable, and just society. **(Key Question 12)**

Criticisms of Social Regulation Critics of social regulation contend that, in many instances, it has been expanded to the point where the marginal costs exceed the marginal benefits. In this view, society would achieve net benefits by cutting back on mettlesome social regulation. Critics say that many social regulation laws are poorly written, making regulatory objectives and standards difficult to understand. As a result, regulators pursue goals well beyond the original intent of the legislation. Businesses complain that regulators often press for additional increments of improvement, unmindful of costs.

Also, decisions must often be made and rules formed on the basis of inadequate information. Examples: Consumer Product Safety Commission (CPSC) officials may make decisions about certain cancer-causing ingredients in products on the basis of limited laboratory experiments with animals. Or government agencies may establish costly pollution standards to attack the global-warming problem without knowing for certain whether pollution is the main cause of the problem. These efforts, say critics, lead to excessive regulation of business.

Moreover, critics argue that social regulations produce many unintended and costly side effects. For instance, the Federal gas mileage standard for automobiles has been blamed for an estimated 2000 to 3900 traffic deaths a year because auto manufacturers have reduced the weight of vehicles to meet the higher miles-per-gallon standards. Other things equal, drivers of lighter cars have a higher fatality rate than drivers of heavier vehicles.

Finally, opponents of social regulation say that the regulatory agencies may attract overzealous workers who are hostile toward the market system and "believe" too fervently in regulation. For example, the EPA staff allegedly sees all pollution as bad and all polluters as "bad guys." They have been accused of avoiding the challenge of trying to identify the optimal amount of pollution based on a careful analysis of marginal costs and marginal benefits.

Two Reminders

The debate over the proper amount of social regulation will surely continue. We leave both proponents and opponents of social regulation with pertinent economic "reminders."

There Is No Free Lunch On the one hand, fervent supporters of social regulation need to remember that "there is no free lunch." Social regulation can produce higher prices, stifle innovation, and reduce competition.

Social regulation raises product prices in two ways. It does so directly because compliance costs normally get passed on to consumers, and it does so indirectly by reducing labor productivity. Resources invested in making workplaces accessible to disabled workers, for example, are not available for investment in new machinery designed to increase output per worker. Where the wage rate is fixed, a drop in labor productivity increases the marginal and average total costs of production. In effect, the supply curve for the product shifts leftward, causing the price of the product to rise.

Social regulation may have a negative impact on the rate of innovation. Technological advance may be stifled by, say, the fear that a new plant will not meet EPA guidelines or that a new medicine will require years of testing before being approved by the Food and Drug Administration (FDA).

Social regulation may weaken competition, since it usually places a relatively greater burden on small firms than on large ones. The costs of complying with social regulation are, in effect, fixed costs. Because smaller firms produce less output over which to distribute those costs,

LAST WORD *United States v. Microsoft*

The Recent Microsoft Antitrust Case Is the Most Significant Monopoly Case since the Breakup of AT&T in the Early 1980s.

The Charges In May 1998 the U.S. Justice Department (under President Clinton), 19 individual states, and the District of Columbia (hereafter, "the government") filed antitrust charges against Microsoft under the Sherman Antitrust Act. The government charged that Microsoft had violated Section 2 of the act through a series of unlawful actions designed to maintain its "Windows" monopoly. It also charged that some of that conduct violated Section 1 of the Sherman Act.

Microsoft denied the charges, arguing it had achieved its success through product innovation and lawful business practices. Microsoft contended it should not be penalized for its superior foresight, business acumen, and technological prowess. It also pointed out that its monopoly was highly transitory because of rapid technological advance.

The District Court Findings In June 2000 the district court ruled that the relevant market was software used to operate Intel-compatible personal computers (PCs). Microsoft's 95 percent share of that market clearly gave it monopoly power. The court pointed out, however, that being a monopoly is not illegal. The violation of the Sherman Act occurred because Microsoft used anticompetitive means to maintain its monopoly power.

According to the court, Microsoft feared that the success of Netscape's Navigator, which allowed people to browse the Internet, might allow Netscape to expand its software to include a competitive PC operating system—software that would threaten the Windows monopoly. It also feared that Sun's Internet applications of its Java programming language might eventually threaten Microsoft's Windows monopoly.

To counter these and similar threats, Microsoft illegally signed contracts with PC makers that required them to feature Internet Explorer on the PC desktop and penalized companies that promoted software products that competed with Microsoft products. Moreover, it gave friendly companies coding that linked Windows to software applications and withheld such coding from companies featuring Netscape. Finally, under license from Sun, Microsoft developed Windows-related Java software that made Sun's own software incompatible with Windows.

The District Court Remedy The district court ordered Microsoft to split into two competing companies, one initially selling the Windows operating system and the other initially selling Microsoft applications (such as Word, Hotmail, MSN, PowerPoint, and Internet Explorer). Both companies would be free to develop new products that compete with each other, and both could derive those products from the intellectual property embodied in the common products existing at the time of divestiture.

The Appeals Court Ruling In late 2000 Microsoft appealed the district court decision to a U.S. court of appeals. In 2001 the

their compliance costs per unit of output put them at a competitive disadvantage with their larger rivals. Social regulation is more likely to force smaller firms out of business, thus contributing to the increased concentration of industry.

Less Government Is Not Always Better than More On the other hand, fervent opponents of social regulation need to remember that less government is not always better than more government. While the market system is a powerful engine of producing goods and services and generating income, it has its flaws. Through social regulation government can clearly increase economic efficiency and thus society's well-being. Ironically, by "taking the rough edges off of capitalism," social regulation may be a strong pro-capitalist force. Properly conceived and executed, social regulation helps maintain political support for the market system. Such support could quickly wane should there be a steady drumbeat of reports of unsafe workplaces, unsafe products, discriminatory hiring, choking pollution, ill-served medical patients, and the like. Social regulation helps the market system deliver not only goods and services but also a "good society."

QUICK REVIEW 32.3

- Social regulation is concerned with the conditions under which goods and services are produced, the effects of production on society, and the physical characteristics of the goods themselves.
- Defenders of social regulation point to the benefits arising from policies that keep dangerous products from the marketplace, reduce workplace injuries and deaths, contribute to clean air and water, and reduce employment discrimination.
- Critics of social regulation say uneconomical policy goals, inadequate information, unintended side effects, and overzealous personnel create excessive regulation, for which regulatory costs exceed regulatory benefits.

higher court affirmed that Microsoft illegally maintained its monopoly, but tossed out the district court's decision to break up Microsoft. It agreed with Microsoft that the company was denied due process during the penalty phase of the trial and concluded that the district court judge had displayed an appearance of bias by holding extensive interviews with the press. The appeals court sent the remedial phase of the case to a new district court judge to determine appropriate remedies. The appeals court also raised issues relating to the wisdom of a structural remedy.

The Final Settlement At the urging of the new district court judge, the Federal government (now under President Bush) and Microsoft negotiated a proposed settlement. With minor modification, the settlement became the final court order in 2002. The breakup was rescinded and replaced with a behavioral remedy. It (1) prevents Microsoft from retaliating against any firm that is developing, selling, or using software that competes with Microsoft Windows or Internet Explorer or is shipping a personal computer that includes both Windows and a non-Microsoft operating system; (2) requires Microsoft to establish uniform royalty and licensing terms for computer manufacturers wanting to include Windows on their PCs; (3) requires that manufacturers be allowed to remove Microsoft icons and replace them with other icons on the Windows desktop; and (4) calls for Microsoft to provide technical information to other companies so that they can develop programs that work as well with Windows as Microsoft's own products.

Source: United States v. Microsoft (District Court Conclusions of Law), April 2000; *United States v. Microsoft* (Court of Appeals), June 2001; *U.S. v. Microsoft* (Final Judgment), November 2002; and Reuters and Associated Press News Services.

SUMMARY

1. The cornerstones of antitrust policy are the Sherman Act of 1890 and the Clayton Act of 1914. The Sherman Act specifies that "every contract, combination . . . or conspiracy in the restraint of interstate trade . . . is . . . illegal" and that any person who monopolizes or attempts to monopolize interstate trade is guilty of a felony.
2. The Clayton Act was designed to bolster and make more explicit the provisions of the Sherman Act. It declares that price discrimination, tying contracts, intercorporate stock acquisitions, and interlocking directorates are illegal when their effect is to reduce competition.
3. The Federal Trade Commission Act of 1914 created the Federal Trade Commission to investigate antitrust violations and to prevent the use of "unfair methods of competition." Empowered to issue cease-and-desist orders, the commission also serves as a watchdog agency over false and deceptive representation of products.
4. The Celler-Kefauver Act of 1950 prohibits one firm from acquiring the assets of another firm when the result will curtail competition.
5. Issues in applying antitrust laws include (a) determining whether an industry should be judged by its structure or by its behavior; (b) defining the scope and size of the dominant firm's market; and (c) deciding how strictly to enforce the antitrust laws.
6. Antitrust officials are more likely to challenge price fixing, tying contracts, and horizontal mergers than they are to break up existing monopolies. Nevertheless, antitrust suits by the Federal government led to the breakup of the AT&T monopoly in the early 1980s.
7. The objective of industrial regulation is to protect the public from the market power of natural monopolies by regulating prices and quality of service.
8. Critics of industrial regulation contend that it can lead to inefficiency and rising costs and that in many instances it constitutes a legal cartel for the regulated firms. Legislation passed in the late 1970s and the 1980s has brought about varying degrees of deregulation in the airline, trucking, banking, railroad, and television broadcasting industries.

9. Studies indicate that deregulation of airlines, railroads, trucking, and telecommunications is producing sizable annual gains to society through lower prices, lower costs, and increased output. Less certain is the effect of the more recent deregulation of the electricity industry.
10. Social regulation is concerned with product safety, working conditions, and the effects of production on society. Whereas industrial regulation is on the wane, social regulation continues to expand. The optimal amount of social regulation occurs where MB = MC.
11. Those who support social regulation point to its numerous specific successes and assert that it has greatly enhanced society's well-being. Critics of social regulation contend that businesses are excessively regulated to the point where marginal costs exceed marginal benefits. They also say that social regulation often produces unintended and costly side effects.

TERMS AND CONCEPTS

antitrust policy
industrial regulation
social regulation
Sherman Act
Clayton Act
tying contracts
interlocking directorates
Federal Trade Commission Act
cease-and-desist order
Wheeler-Lea Act
Celler-Kefauver Act
Standard Oil case
U.S. Steel case
rule of reason
Alcoa case
DuPont cellophane case
Microsoft case
horizontal merger
vertical merger
conglomerate merger
per se violations
natural monopoly
public interest theory of regulation
legal cartel theory of regulation

STUDY QUESTIONS

1. Both antitrust policy and industrial regulation deal with monopoly. What distinguishes the two approaches? How does government decide to use one form of remedy rather than the other?
2. ***Key Question*** Describe the major provisions of the Sherman and Clayton acts. What government entities are responsible for enforcing those laws? Are firms permitted to initiate antitrust suits on their own against other firms?
3. Contrast the outcomes of the Standard Oil and U.S. Steel cases. What was the main antitrust issue in the DuPont cellophane case? In what major way do the Microsoft and Standard Oil cases differ?
4. Why might one administration interpret and enforce the antitrust laws more strictly than another? How might a change of administrations affect a major monopoly case in progress?
5. ***Key Question*** How would you expect antitrust authorities to react to:
   a. A proposed merger of Ford and General Motors.
   b. Evidence of secret meetings by contractors to rig bids for highway construction projects.
   c. A proposed merger of a large shoe manufacturer and a chain of retail shoe stores.
   d. A proposed merger of a small life-insurance company and a regional candy manufacturer.
   e. An automobile rental firm that charges higher rates for last-minute rentals than for rentals reserved weeks in advance.
6. Suppose a proposed merger of firms would simultaneously lessen competition and reduce unit costs through economies of scale. Do you think such a merger should be allowed?
7. In the 1980s, PepsiCo Inc., which then had 28 percent of the soft-drink market, proposed to acquire the Seven-Up Company. Shortly thereafter the Coca-Cola Company, with 39 percent of the market, indicated it wanted to acquire the Dr. Pepper Company. Seven-Up and Dr. Pepper each controlled about 7 percent of the market. In your judgment, was the government's decision to block these mergers appropriate?
8. Why might a firm charged with violating the Clayton Act, Section 7, try arguing that the products sold by the merged firms are in separate markets? Why might a firm charged with violating Section 2 of the Sherman Act try convincing the court that none of its behavior in achieving and maintaining its monopoly was illegal?
9. "The social desirability of any particular firm should be judged not on the basis of its market share but on the basis of its conduct and performance." Make a counterargument, referring to the monopoly model in your statement.
10. ***Key Question*** What types of industries, if any, should be subjected to industrial regulation? What specific problems does industrial regulation entail?
11. In view of the problems involved in regulating natural monopolies, compare socially optimal (marginal-cost) pricing

and fair-return pricing by referring again to Figure 24.9. Assuming that a government subsidy might be used to cover any loss resulting from marginal-cost pricing, which pricing policy would you favor? Why? What problems might such a subsidy entail?

12. ***Key Question*** How does social regulation differ from industrial regulation? What types of benefits and costs are associated with social regulation?

13. Use economic analysis to explain why the optimal amount of product safety may be less than the amount that would totally eliminate risks of accidents and deaths. Use automobiles as an example.

14. ***(Last Word)*** Under what law and on what basis did the Federal district court find Microsoft guilty of violating the antitrust laws? What was the initial district court's remedy? How did Microsoft fare with its appeal to the court of appeals? Was the final remedy in the case a structural remedy or a behavioral remedy?

15. ***Web-Based Question: The FTC and the Antitrust Division—recent antitrust actions*** Go to the FTC website, www.ftc.gov/ftc/antitrust.htm, to find recent press releases. Briefly summarize two recent legal actions taken by the FTC. Next, go to the website of the U.S. Department of Justice's Antitrust Division, www.usdoj.gov/atr/index.html, and select What's New and All Press Releases. Briefly summarize two recent legal actions taken by the Antitrust Division.

16. ***Web-Based Question: The Consumer Product Safety Commission—what is it and what does it do?*** What are the major functions of the Consumer Product Safety Commission (www.cpsc.gov)? What products are the subjects of the latest CPSC press release? Identify two product categories of interest to you from Recalls by Product. List three specific product recalls for each of your two product categories. What products are covered by other government agencies and not by the CPSC?