CHAPTER 9

Antitrust: Economics, Law, and Politics

Introduction

Antitrust policy is an amalgam of social policy, economics, law, administrative practice, and schools of thought.[1] Antitrust policy had its origins in the populist movement of the 1870s when a number of states enacted statutes to regulate economic activity and control the exercise of economic power. At the federal level, this movement led to the Interstate Commerce Act of 1887, which provided for federal regulation of interstate commerce, and the Sherman Act of 1890, the first federal antitrust statute. These acts resulted from political pressure by farmers and others concerned about railroad cartels, the railroads' pricing practices, and the distribution of power between farmers and railroads. The laws thus represent both social and economic policy.

As social policy, the antitrust laws express concern about concentrations of economic power and the potential for abuse inherent in that concentration. This parallels concern about the concentration of political power and the preference for its dispersion in the electorate and among the institutions of government. Just as the Constitution controls political power through checks and balances among the branches of government and through popular elections, antitrust policy has focused on controlling economic power.

Antitrust policy also reflects economic policy. Antitrust is concerned with the structure of markets, the conduct of market participants, and the resulting performance of those markets. Antitrust economics has both a theoretical and an empirical component. Theory has been an indispensable guide to reasoning about the relationships among structure, conduct, and performance; and empirical research has provided evidence about those relationships.

Antitrust law includes statutes and the court decisions interpreting those statutes. The principal federal statutes are the Sherman Act, the Clayton Act of 1914, and the Federal Trade Commission Act of 1914. These acts are broadly worded, employing such terms as "monopolization," "restraint of trade," and "unfair practices." This has required courts to interpret the acts in the context of the specifics of individual cases.[2] Antitrust law is thus both statutory and interpretive. It is also the subject of politics as interest groups, politicians, and public policy specialists attempt to influence the law.

Although there have been few major changes in the antitrust statutes in recent years, antitrust has not been static. Change results from its administration and enforcement. At the federal level, public enforcement is provided by the Antitrust Division of the U.S. Department of Justice (DOJ) and the Federal Trade Commission (FTC). During the 1980s the DOJ

[1] The antitrust policies of Japan and the European Community are considered in Chapters 13 and 14, respectively.
[2] See Carp and Stidham (1998) for information on the U.S. federal courts.

and the FTC made significant changes in antitrust policy through their merger guidelines, which revised the policies governing federal enforcement. Similarly, enforcement policies on vertical restraints of trade changed considerably. During the 1990s the pace of antitrust enforcement increased substantially. U.S. antitrust laws are enforced less by government, however, than by private litigants—often by one firm filing suit against another. Over 90 percent of the suits filed under the federal antitrust laws are brought by private litigants. Consequently, decisions made by courts on cases brought by private litigants cause antitrust law to evolve, even when there is no legislative or federal enforcement activity.

Much of the recent evolution of antitrust law, and of antitrust policy more broadly, has been the result of changing economic and legal thought about markets, business strategies, and performance. This thought has a coherence and perspective not necessarily found in the historical record of court decisions, and it has shaped a number of recent decisions. Three approaches, or schools of thought, to reasoning about antitrust are considered in this chapter.

The traditional or structural approach focuses on the structure of industries and on conduct that may foreclose opportunities or diminish competition. In the 1970s new understandings of the functioning of markets and the nature of competition were developed by the Chicago school of economics and had a major impact on antitrust enforcement and court decisions.[3] More recently, economists have challenged the conclusions of the Chicago school by considering more closely the consequences of informational asymmetries, network externalities, and strategic interactions among market participants. This perspective has qualified a number of the conclusions of the Chicago school.

These understandings of antitrust's purpose and its appropriate application are particularly important in the United States because of the adversarial nature of judicial proceedings. Both plaintiffs and defendants have incentives to make the best cases they can and to use whatever new understandings support their sides. Consequently, new theories and empirical evidence quickly find their way into court proceedings. Hearing these arguments, judges make decisions which at times are influenced by how compelling the theories are, in addition, of course, to the facts of the case, empirical evidence, and legal precedents. Antitrust law thus is also shaped by economic thought.

Antitrust policy has broad implications for management. Firms must conform to the law, but in many cases and for many practices, there is a considerable gray area in which the requirements of the law are unclear or untested. Similarly, because antitrust law evolves, a practice that once was allowable under the law may no longer be allowable. Other practices which were once illegal may no longer be. Legal counsel is thus essential when issues or practices may have antitrust implications. Managers, however, must have an understanding of antitrust law, enforcement practices, and antitrust thought, since they must recognize when a policy or practice may raise antitrust concerns. The purpose of this chapter is to provide an introduction to antitrust law and an understanding of antitrust thought, the forces that have shaped antitrust policy in recent years, and the forces that may shape its future development.

Antitrust Law and Enforcement

THE ANTITRUST STATUTES

The principal antitrust statutes, excerpts from which are presented in Figure 9-1, have remained largely intact for over 85 years. Section 1 of the Sherman Act pertains to unreasonable restraints of trade with a focus on joint conduct. Section 2 focuses on unilateral conduct and proscribes monopoly and attempts to monopolize. The Sherman

[3] Much of the theory was developed by economists and legal scholars at the University of Chicago.

Sherman Act

Section 1. Every contract, combination in the form of 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. . . . Every person who shall make any contract or engage in any combination or conspiracy hereby declared to be illegal shall be deemed guilty of a felony. . . .

Section 2. Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other 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. . . .

Clayton Act

Section 2. (a) That it shall be unlawful for any person engaged in commerce . . . to discriminate in the price between different purchasers . . . where the effect of such discrimination may be substantially to lessen competition or tend to create a monopoly in any line of commerce, or to injure, destroy or prevent competition . . . nothing herein contained shall prevent differentials which make only due allowance for differences in the cost of manufacture, sale, or delivery. . . .

Section 3. That it shall be illegal for any person [to enter an arrangement] . . . on the condition . . . that the lessee or purchaser thereof shall not use or deal in the goods . . . of a competitor or competitors, where the effect . . . may be to substantially lessen the competition or tend to create a monopoly in any line of commerce.

Section 7. That no corporation engaged in commerce shall acquire, directly or indirectly, the whole or any part of the stock or other share capital . . . where in any line of commerce in any section of the country, the effect of such acquisition may be substantially to lessen competition, or tend to create monopoly.*

Federal Trade Commission Act

Section 5. (a)(1) Unfair methods of competition in commerce, and unfair or deceptive acts or practices in commerce, are hereby declared unlawful.**

*As amended by the Celler-Kefauver Act of 1950.
**As amended by the Wheeler-Lea Act of 1938.

FIGURE 9-1 Excerpts from the Antitrust Statutes

Act thus pertains to the reality of monopoly or restraints on trade and to the process of obtaining a monopoly.

The Clayton Act goes further by addressing potentially anticompetitive actions. The Clayton Act contains terms such as "may be" and "tend to," which address monopolization and restraints in their incipiency. The Federal Trade Commission Act goes beyond the other two acts by prohibiting unfair methods of competition and unfair or deceptive acts and practices. The broad language employed leaves considerable room for interpretation and thus a substantial role for the courts.[4]

The Sherman Act does not provide for private lawsuits, but Section 4 of the Clayton Act states "that any person who shall be injured in his business or property by reason of anything forbidden in the antitrust laws may sue therefore in any district court of the United States. . . ." This allows private parties to bring lawsuits for practices that are illegal under either the Sherman Act or the Clayton Act. Section 4 also provides for treble damages. Section 7 of the Clayton Act prohibits mergers that may substantially lessen competition or create a monopoly.

The Robinson-Patman Act of 1934 strengthened Section 2 of the Clayton Act's prohibition of price discrimination. The Robinson-Patman Act was intended to protect small businesses and merchants from their larger competitors, which were able to obtain lower prices on their supplies. Small grocers, for example, sought protection from

[4] See Areeda and Kaplow (1997) for a comprehensive treatment of antitrust law.

supermarkets, which used their greater buying power to obtain lower prices. Critics of the Robinson-Patman Act claim that it causes firms to be wary of price competition, resulting in higher prices for consumers. Proponents, however, contend that it is necessary to prevent small firms from being driven out of business and thereby increasing concentration and lessening competition.

Practices that come under the antitrust laws are classified as *horizontal* or *vertical*. A horizontal practice is one that involves activities in the same industry. A merger, for example, is horizontal if the two firms operate in the same industry. Horizontal arrangements include monopolization, predatory pricing, price fixing, bid rigging, the allocation of customers, and group boycotts. The concern with horizontal arrangements is that they may increase market power, leading to lessened competition and higher prices.

Vertical practices are those involving firms in a supply arrangement or a channel of distribution. Vertical practices include the allocation of territories by a manufacturer among distributors or retailers, refusals to deal, exclusive dealing arrangements, retail price maintenance, reciprocal arrangements, and tying. Vertical practices also include the merger of a manufacturer and a supplier or distributor. Figure 9-2 provides brief definitions of the principal practices of concern under the antitrust laws.

EXAMPLE: MICROSOFT AND MONOPOLY

Monopoly is the subject of Section 2 of the Sherman Act. In *United States v. Aluminum Co. of America,* 148 F2d 416 (2d Cir 1945), Judge Learned Hand stated that the fact of monopoly, and not the abuse of monopoly power, was sufficient and formulated a two-step procedure for deciding monopolization cases under Section 2 of the Sherman Act.[5] The first step is to determine if the defendant has a monopoly, using market shares, for example. The second step is to determine if the monopoly was willfully acquired or the result of "superior skill, foresight and industry."

> [t]he offense of monopoly . . . has two elements: (1) the possession of monopoly power in the relevant market and (2) the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historical accident.

In 1990 the FTC began an investigation of the competitive practices of the Microsoft Corporation, centering on whether it had gained a monopoly, used anticompetitive practices such as price discounting copies of operating systems sold with personal computers, or had an unfair advantage through the linking of operating systems software with applications software. Some of Microsoft's competitors sought to have the company broken into two parts, one for operating systems and the other for applications. After a 30-month investigation, the FTC deadlocked on a 2-to-2 vote on whether to take action against Microsoft.

The DOJ then decided to undertake its own investigation, and in 1995 reached a consent decree with Microsoft imposing modest changes in its marketing practices, such as requiring Microsoft to allow computer manufacturers to offer their customers a choice of operating systems.[6] The monopolization concerns did not survive the two-step test. Microsoft contended that it did not have "market power in the traditional antitrust sense. Anyone can come in and upset you with better technology." Microsoft also maintained that its marketing practices, such as offering large discounts, were not anticompetitive but were standard practice.[7]

[5]Early cases broke up the oil (*Standard Oil Co. v. United States,* 221 U.S. 1 (1911)) and tobacco (*United States v. American Tobacco Co.,* 221 U.S. 106 (1911)) monopolies.
[6]See Gilbert (1999) for an analysis of this case.
[7]A federal judge rejected the consent decree on the grounds that the restrictions placed on Microsoft were insufficient. The DOJ successfully appealed the ruling, and the consent decree was approved.

Horizontal

Horizontal merger—A merger is horizontal if it involves two firms in the same industry. A horizontal merger comes under Section 7 of the Clayton Act and under Section 2 of the Sherman Act, if it would create a monopoly.

Horizontal price fixing (collusion)—Horizontal price fixing includes explicit or implicit agreements to control prices in an industry or with respect to a product. Horizontal price fixing comes under Section 1 of the Sherman Act.

Monopoly—Concerted efforts to monopolize come under the purview of Section 1 of the Sherman Act, and the unilateral attempt to monopolize comes under Section 2 of the Sherman Act.

Price discrimination—Price discrimination involves charging customers different prices that are not justified by cost differences of serving those customers. Price discrimination comes under Section 2 of the Clayton Act, as amended by the Robinson-Patman Act.

Vertical

Boycotts and refusals to deal—A manufacturer refuses to sell to a distributor or a retailer. If two or more parties agree to refuse to deal with another party, it is a boycott. These practices are considered under Section 1 of the Sherman Act.

Exclusive dealing—A manufacturer grants another firm an exclusive right to distribute or market a particular product. Exclusive dealing comes under Section 3 of the Clayton Act.

Exclusive territory—A manufacturer grants an exclusive territory to a seller, and no other seller is permitted to sell in the territory. Exclusive territories come under Section 1 of the Sherman Act.

Resale price maintenance—A manufacturer requires a retailer to sell only at a price at least as high as a price it specifies. Such cases come under Section 1 of the Sherman Act.

Tying—Tying is the practice of bundling one product with another. For example, Mercedes-Benz requires its dealers to carry only Mercedes-Benz parts.* Tying arrangements come under Section 3 of the Clayton Act.

Vertical integration—Vertical integration involves the joining together, in terms of a merger or venture, of firms at various stages of a production process or channel of distribution. A vertical merger comes under Section 7 of the Clayton Act.** A vertical contract that forecloses or restrains competition comes under Section 3 of the Clayton Act.

Conglomerate

Conglomerate merger—A conglomerate merger involves two firms that do not operate in the same industries either as competitors or as part of a channel of distribution or supply. Conglomerate mergers come under Section 7 of the Clayton Act. The concern in the case of a conglomerate merger is the elimination of a potential competitor.***

*The DOJ dropped its antitrust suit against Mercedes-Benz because it concluded that a tying arrangement could only be anti-competitive if it is based on horizontal market power.

**See *Brown Shoe Co. v. U.S.,* 294 (1962), where the Supreme Court invalidated the merger between Brown Shoe and the G. R. Kinney retail chain.

***See *Federal Trade Commission v. Procter & Gamble Co.,* 368 U.S. 568(1967).

FIGURE 9-2 Arrangements and Practices

By 1998 Microsoft had a more dominant presence in the operating system and software markets. As addressed in Chapter 2, issues of monopolization and anticompetitive practices were raised about Microsoft. The chapter case *The Microsoft Antitrust Case* addresses these issues.[8]

[8]Monopolization cases are rarely brought. The most recent case prior to the Microsoft case was against IBM for monopolization of the computer industry. That case was filed on the last day of the Johnson administration in 1969.

EXEMPTIONS

A number of exemptions from the antitrust laws are provided. The Norris-LaGuardia Act of 1932 strengthened the statutory exemption that the Clayton Act provided to unions. The economic activities of labor unions taken in their own interest, such as strikes, are protected.

Exemptions are also provided for agricultural cooperatives and for certain activities of industries such as insurance, which are regulated by government.[9] Exemptions for joint export trading activities are also provided under the Webb-Pomerene Act of 1918 and the Export Trading Company Act of 1982. A partial antitrust exemption was established for joint research and development ventures such as Sematech. Exemptions can also be provided by specific legislation, as in the Soft Drink Interbrand Competition Act considered later in the chapter.

Baseball did not have a statutory exemption from the antitrust laws but was protected by a 1922 Supreme Court decision, which had been upheld in subsequent decisions because the court has believed that it is the role of Congress, not the court, to change the antitrust status of baseball.[10] In 1998 Congress eliminated the antitrust exemption for baseball.

GOVERNMENT ENFORCEMENT OF THE ANTITRUST LAWS

Both the DOJ and the FTC have the authority to enforce the Sherman and Clayton Acts, but only the FTC can enforce the Federal Trade Commission Act.[11] Their dual enforcement responsibilities led the DOJ and the FTC to reach an interagency liaison agreement in 1948. As a result of the agreement, cases are allocated according primarily to industry and secondarily to the nature of the complaint.[12] For example, the DOJ has enforcement responsibility for software and the FTC for semiconductors, so the DOJ has filed the antitrust suits against Microsoft and the FTC filed an antitrust action against Intel. Most enforcement activities are civil rather than criminal, and only the DOJ can bring criminal charges under the antitrust laws. Bringing criminal charges requires a grand jury indictment, and the standards of proof are higher than in a civil case. Three Archer-Daniels-Midland executives were convicted of criminal price fixing in 1998.

In criminal cases, the available penalties are fines and imprisonment. In civil cases, fines can be imposed, contracts dissolved, business units ordered divested, injunctive relief obtained, and consent decrees granted. The courts not only decide cases but also approve consent decrees, such as that which split AT&T into seven regional operating companies and a residual AT&T.[13] The DOJ can enforce the antitrust laws only through lawsuits filed in federal courts, but the FTC has authority to issue orders without court action. The FTC can also seek injunctions in federal court, for example, to block a proposed merger.[14]

[9]The exemption for the insurance industry is provided in the McCarron-Ferguson Act, and the exemption for agricultural cooperatives is provided by the Capper-Volstad Act of 1922.
[10]See *Federal Baseball Club of Baltimore v. National League of Professional Baseball Clubs,* 259 U.S.200 (1991), *Toolson v. New York Yankees Inc.,* 346 U.S. 356 (1953), and *Flood v. Kuhn,* 407 U.S. 258 (1972).
[11]Technically the FTC has no authority to enforce the Sherman Act, but in practice it does. The courts have held that practices violating the Sherman Act constitute "unfair" methods of competition under Section 5 of the Federal Trade Commission Act.
[12]See Shugart (1990, p. 947).
[13]A consent decree is an agreement reached by the litigants under the sanction of a court and does not involve a judicial determination, and hence does not signify a violation of the law. A consent decree generally involves restrictions on the actions of the defendant. It binds only the consenting parties and does not set a precedent for the courts.
[14]See Clarkson and Muris (1981) for an analysis of FTC policy and enforcement.

The FTC is an independent commission with five commissioners appointed, subject to Senate confirmation, by the president to 7-year terms. It can initiate its own investigations of practices it believes may violate the antitrust laws. As a consequence of an investigation, the FTC may negotiate a consent decree with a firm. If a firm refuses to agree to a consent decree, the FTC can continue the case through an administrative law procedure. A hearing is held before an administrative law judge, who issues an opinion and recommendations for action. The case is then decided by a majority vote of the commission.[15] As penalties, the FTC can issue cease and desist orders that have the effect of injunctions against the activity in question. If a firm violates an order, the FTC can impose fines. Both the orders issued by the FTC and the court decisions in cases brought by the DOJ can be appealed to the U.S. Court of Appeals.[16]

A consent order typically continues in effect indefinitely and requires the agreement of both parties and the court to lift or modify it.[17] With changing circumstances the order can restrict a firm's market strategy. In 1978 Levi Strauss & Co. entered into a consent order with the FTC to resolve complaints of anticompetitive behavior, including tying. The order effectively prevented the company from operating its own retail stores. The company changed its market strategy to include opening a line of stores, but first it had to obtain a change in the consent order. When the FTC agreed to amend the consent decree in 1994, Levi Strauss announced plans to open 200 retail stores.[18] In 1997 a federal court lifted, effective in 2001, a 1956 consent decree that had restricted IBM's sales and service practices on its mainframe and mid-range computers. The judge concluded that IBM's market power "has substantially diminished."

The 1974 Antitrust Procedures and Penalties Act classified as felonies violations such as price fixing and increased the allowable fines. Fines against corporations can be as high as $10 million per count in criminal cases. Individuals, including managers of corporations, can be fined up to $350,000 and can be imprisoned for up to 3 years. Since 1990 the federal government has been able to collect treble damages. Federal sentencing guidelines enacted in 1991 allow fines to be based on the amount of business affected in addition to other factors. In 1996 Archer-Daniels-Midland was fined $100 million for price fixing of lysine and citric acid, and in 1998 Intermation was fined $110 million for participating in an international cartel that fixed the prices of graphite electrodes.

The Hart-Scott-Rodino Antitrust Improvements Act of 1976 amended Section 7 of the Clayton Act to enhance the enforcement of the antitrust laws pertaining to monopolization and restraint of trade through mergers.[19] Hart-Scott-Rodino requires premerger notification if the acquirer will have a 15 percent stake or a $15 million investment in the acquired firm and the acquirer has either sales or assets of $100 million or the acquired firm has assets of at least $10 million. If the acquired firm is a manufacturer, the asset figure is replaced by sales of $10 million. The amendment requires that firms notify the DOJ and the FTC of their plans to merge. In 1998, 4,728 mergers were reported under Hart-Scott-Rodino. The merger cannot be completed for 30 days, and during this period the agencies can require the firms to submit information about the market effects of their merger. For example, the firms may be required to submit information about their market shares in the market segments in which they both participate. If the DOJ or FTC decides that there are grounds to challenge the merger, it seeks

[15]One difference between the enforcement by the DOJ and the FTC is that the DOJ abandons a case if it loses in court, for example, in an attempt to obtain an injunction to block a merger. If the FTC fails to obtain an injunction, it can use its administrative procedure to pursue the case.
[16]See Weaver (1977) for a study of FTC enforcement policy and Elzinga and Breit (1976) for a study of antitrust penalties.
[17]Consent decrees can have limited duration.
[18]Similarly, in 1994 Eastman Kodak was successful in having 1921 and 1954 consent decrees lifted, providing more flexibility in the marketing of film.
[19]See Federal Trade Commission (1990).

a preliminary injunction against it. In most cases, this convinces the firms to abandon their plans to merge. The chapter case *The Staples-Home Depot Merger?* concerns an FTC action to obtain a preliminary injunction against a merger.[20]

The Robinson-Patman Act prohibits price discrimination that is not justified by cost differences in serving customers. In addition to a cost difference defense, a firm can defend itself by arguing that the price discrimination was necessary to meet competition. The Clayton Act assigns the burden of proof in a price discrimination case to the plaintiff to show that there has been discrimination. Given a prima facie case, the defendant has the burden to show that the discrimination was justified by, for example, cost differences.[21]

The treble damages provision provides a strong incentive to file antitrust suits, and most suits are filed by firms against their competitors. If a suit is filed against a firm by the DOJ, private parties often follow with private suits. A court decision for the government is interpreted by the courts as providing a prima facie case against the defendant, greatly increasing the likelihood that private cases will be decided in favor of the plaintiffs.

During the past 20 years the DOJ and the FTC have effectively stopped enforcing the Robinson-Patman Act because of their view that the act stifles competition. The DOJ and the FTC have also stopped enforcing the prohibition against resale price maintenance, although private enforcement continues. Resale price maintenance pertains to restrictions imposed by manufacturers on the prices that can be charged by retailers. In the 1930s small retailers sought protection from price competition by having manufacturers establish minimum resale prices. States passed "fair trade laws" that required retailers to sell at the prices specified by contracts signed with manufacturers. The Miller-Tydings Act of 1937 allowed states to exempt price maintenance agreements from coverage under Section 1 of the Sherman Act as long as there was competition from other brands. The McGuire Act extended this to nonsigners of resale price contracts. In 1975, Congress repealed the Miller-Tydings and the McGuire Acts and withdrew the states' authority for fair trade laws. Court decisions on resale price maintenance are considered later in the chapter.

The explanation for the lack of government enforcement of the resale price maintenance and price discrimination provisions of the antitrust laws is found in the changing schools of antitrust thought considered later in the chapter. To indicate the type of case to which the DOJ and the FTC object, in the late 1970s Cuisinart was found to have violated the antitrust laws by requiring dealers of its food processors to maintain a minimum retail price. Cuisinart held a dominant share of the market for food processors at the time the suit was filed, but its share was largely due to it having developed the product. Cuisinart had no fundamental horizontal market power, as entry into the food processor market was easy. Furthermore, the high minimum price established by Cuisinart stimulated entry and quickly eroded its market share. Prices fell substantially. The retail price agreement, if it had continued, would likely have had little effect on the market for food processors. To clarify its policy, in 1985 the Antitrust Division of the DOJ issued revised guidelines indicating that it would not investigate vertical accords when a firm has less than a 10 percent market share. A market share above 10 percent could still lead to an investigation.

[20]In 1998 the DOJ filed an antitrust lawsuit against Northwest Airlines's acquisition of a controlling interest in Continental Airlines, and instead of requesting a preliminary injunction to block the acquisition, the DOJ agreed to Northwest putting the acquired shares of Continental in a trust for 6 years. The DOJ reasoned that in contrast to a merger which is costly to unwind, a stock acquisition can be easily reversed if the court were to rule against the merger.

[21]A prima facie case is one that needs no further demonstration.

In spite of the lack of enforcement against certain vertical arrangements, federal enforcement of the antitrust laws is active. In the 1990s the FTC became more active in initiating cases on misleading advertising. For example, it charged two manufacturers of athletic shoes with false advertising for labeling their shoes as made in the United States.

During the Clinton administration the pace of federal antitrust enforcement accelerated considerably. In part, this was due to the increase in merger activity. The merger notifications under Hart-Scott-Rodino increased from 1,451 in 1991 to over 4,700 in 1998. The merger boom not only increased the number of potential cases, but the nature of the mergers in 1997 to 1998 was also different from those earlier in the decade. Mergers have increasingly been strategic in nature rather than financially motivated, and a number of the strategic mergers raise horizontal and/or vertical antitrust issues. In 1998 the FTC negotiated 28 consent decrees in merger cases, obtained preliminary injunctions in three cases, and in six cases the parties abandoned the merger. The FTC also brought 13 non-merger cases, which was the highest number in a decade.

The growth in new industries has also generated new antitrust activity. The dietary supplements industry reached $12 billion in sales in 1997, and the FTC turned its attention to the advertising claims made for the supplements. The FTC took legal action against seven supplements manufacturers, sent e-mail warnings to 1,100 Web sites that made "incredible claims," and issued advertising guidelines.[22] In another action the DOJ filed an antitrust case against Visa and MasterCard alleging that the joint ownership of the country's two largest credit card networks by a group of major banks was stifling competition between the two credit cards.

The DOJ also became more active in another area. It filed a price fixing suit against the 23 colleges in the "overlap" group that met annually to exchange financial aid information for admitted undergraduate students. The DOJ reached a consent decree with the eight Ivy League schools, but the Massachusetts Institute of Technology (MIT) decided to go to trial, losing in district court. It appealed the decision and the U.S. Court of Appeals reversed the lower court decision. The DOJ and MIT then reached a settlement in which colleges may discuss general guidelines for financial aid and compare data on financial need but may not exchange information on individual students or their aid packages.[23]

Although the federal antitrust agencies are usually successful in obtaining at least a consent decree in the cases they bring, companies do win cases. In 1994, in a case brought by the DOJ alleging that General Electric had engaged in price fixing for industrial diamonds, the judge ruled that the DOJ had presented insufficient evidence and dismissed the case without requiring the company to present its defense.

PRIVATE ANTITRUST ACTIONS

Most antitrust cases are the result of private lawsuits.[24] The number of private antitrust suits increased from the early 1960s and peaked at over 1,600 in 1977, declining to 570 in 1997. The decline is a function of a variety of factors, including Supreme Court decisions that made it more difficult for some plaintiffs to prevail in cases involving vertical restraints and predatory pricing. Firms also instituted compliance programs that contributed to the decrease.

[22]*The Wall Street Journal,* November 18, 1998.

[23]See Bamberger and Carlton (1999). The only schools allowed to participate in the system are those that practice need-blind admissions and provide full-need financial aid.

[24]See White (1988). Viscusi, Vernon, and Harrington (1995, p. 65) report that 93 percent of antitrust lawsuits filed in U.S. courts during the 1970s and 1980s were private.

Most antitrust suits are brought under the Sherman Act, and cases pertaining to vertical arrangements represent a somewhat higher percent of the total than those pertaining to horizontal practices. Of the total cases in their study, Salop and White (1988) found that 36.5 percent were filed by competitors and 27.3 percent by dealers.[25] Of the cases filed before 1980, 71 percent were settled out of court and 11 percent were dismissed. Of the 12 percent of the cases that continued, plaintiffs prevailed in approximately 30 percent. Only 5.4 percent of the cases went to trial.

The treble damages provision of the Clayton Act provides strong incentives to file antitrust suits. Treble damages are understandably controversial. Their proponents argue that they provide an important incentive for private enforcement. Critics contend that treble damages provide an incentive to challenge the practices of competitors, thereby making firms reluctant to compete on a number of dimensions, including price.

Private suits can have significance beyond their impact on the parties involved. When a private antitrust case is tried and appealed, higher court decisions can establish a precedent that is then followed by courts in similar cases. Many of the important interpretations of the antitrust statutes and of the precedents followed by the courts have come from private lawsuits.

PER SE VIOLATIONS AND THE RULE OF REASON

The courts have held that there are some sufficiently egregious acts that on the face of it violate the antitrust laws. These acts are said to be *per se* illegal, and the only defense allowed is that the defendant did not commit the act. The Supreme Court established this rule in *Northern Pacific Railroad Co. v. U.S.,* 356 U.S. 1 (1958) in stating that, "There are certain agreements or practices which because of their pernicious effect on competition and lack of any redeeming virtue are conclusively presumed to be unreasonable and therefore illegal without elaborate inquiry as to the precise harm they have caused or the business excuse for their use."

In contrast, other cases are considered by the courts on the basis of a rule of reason.[26] Under this rule, a restraint of trade, for example, is illegal if it is unreasonable.[27] *Per se* violations are presumed to be unreasonable. The rule of reason was needed because much of the language of the antitrust laws is too sweeping and a literal interpretation would be harmful to competition and efficiency. Section 1 of the Sherman Act, for example, might be interpreted as prohibiting supply contracts because they restrain the opportunities for others. Similarly, combinations such as partnerships might otherwise be held to be in violation of the Sherman Act.

A defendant has two defenses under a rule of reason. The first is the same as under a *per se* rule—the defendant did not commit the act in question. The second is that, although the defendant committed the act, it was not unreasonable to do so. The burden of proof is on the plaintiff to show that it is unreasonable. In evaluating whether an act or a practice is unreasonable, courts look to its purpose and effect. In the case of vertical arrangements, the stimulation of interbrand competition is a purpose the courts recognize. In evaluating the effect of a practice, the courts examine whether it

[25] As an example of the specific focus of a private antitrust suit, in 1994 1,346 independent pharmacists filed suits in federal courts in 15 states charging the large pharmaceutical companies with price discrimination because they granted large discounts to hospitals, HMOs, and mail-order drug companies. These discounts were not available to independent pharmacists, which allegedly forced many of them out of business. Four supermarket chains also filed a price discrimination suit against the pharmaceutical companies.

[26] The rule of reason was first articulated by the Supreme Court in *Standard Oil Co. of New Jersey v. United States,* 221 U.S. 1 (1911), which broke up the Standard Oil Trust.

[27] A judicial rule is a standard of interpretation for a law that is ambiguous in the absence of that interpretation.

restrains or promotes competition and whether it is the least restrictive means of achieving the purpose. A court may hold for the plaintiff if either the purpose or the effect is unreasonable.

The courts do not decide which rule is applicable on a case-by-case basis but instead hold that certain practices are *per se* illegal and others are not. Presently, price fixing, output restraints, minimum resale price maintenance, and the allocation of customers among competitors are *per se* violations of the antitrust laws. Some practices that in the past were considered *per se* offenses are now considered under the rule of reason. For example, in 1997 the Supreme Court ruled that maximum price resale maintenance, where a manufacturer sets a maximum price that retailers may charge, is now to be evaluated under a rule of reason rather than being *per se* illegal.[28]

A variety of arrangements and practices have come under the scrutiny of the antitrust laws, as indicated in Figure 9-2. A treatment of each of these requires more space than is available, so the following sections focus instead on antitrust thought and on the application of that thought in the areas of vertical restraints, predatory pricing, collusion, and mergers.

Schools of Antitrust Thought

Antitrust policy, enforcement practices, and court decisions are influenced by the prevailing schools of thought about the purposes of antitrust policy and the likely consequences of specific practices. The traditional or structural school of thought prevailed into the 1970s, when it was confronted with the understandings of the Chicago school of economics and antitrust. The Chicago, or law and economics, school viewed the objectives and principles of antitrust policy quite differently, particularly with regard to vertical arrangements. It has had considerable influence on legal education, the courts, and the enforcement activities of the DOJ and FTC beginning with the Reagan administration. In addition, the courts have adopted many understandings of the Chicago school, and several Chicago school scholars have been appointed to the federal judiciary.

In the 1990s antitrust practice and policy have also been influenced by the work of industrial organization (IO) economists who focused on new considerations such as network externalities and compatibility and on theories of oligopoly that take the strategic interactions among market participants into account. This "new IO" or "post-Chicago" approach challenges some of the understandings of both the structural and the Chicago schools. The new IO approach is at present a collection of theories rather than a unified theory from which broad conclusions can be drawn. Furthermore, courts have only cautiously embraced its theories, in part because of its complexity and the subtle reasoning involved. Nevertheless, it represents an important force in antitrust.

These three approaches agree on many points but differ on several dimensions. Figure 9-3 contrasts the approaches.

THE STRUCTURAL APPROACH

The structural approach views the purpose of antitrust policy as improving economic performance and furthering the social objectives of limiting economic power and of providing fairness to market participants. From this perspective, concentrations of economic power should be checked, just as is political power. Because economic power can result in the unfair treatment of competitors and consumers, government

[28] *State Oil Company v. Khan,* 522 U.S. 3; 118 S.Ct. 27 S.

FIGURE 9-3 Structural, Chicago School, New IO Perspectives

Dimension	*Structural View*	*Chicago School*	*New IO*
• Purpose of antitrust policy	Social and political as well as economic objectives.	Economic objectives—efficiency with a focus on prices.	• Economic objectives; static and dynamic efficiency
• View of markets	Markets are fragile and prone to failure.	Markets are resilient; market imperfections can be addressed through incentives.	• Most markets are resilient, but some have imperfections such as network externalities; strategic behavior can limit efficiency
• What is needed	Government to protect society from economic power.	Competition is the best protector of consumers and economic efficiency.	• Competition is the best protector of consumers, but government interventions can be required.
• Perspective on consumers	Need to protect consumers from others and from themselves; e.g., unfair practices.	Consumers are responsible for their own decisions and will protect themselves.	• Consumers can protect themselves when they have choices.
• Requirements for markets to function efficiently	Protect competitors to prevent monopoly; avoid foreclosing opportunities for competitors.	Conditions for perfect competition are sufficient but not necessary.	• Both innovation and competition are required for efficiency
• Relationship between the number of competitors and market performance	More competitors means more competition.	Competition can be effective with only a few competitors.	• Competition can be effective with a small number of competitors
• Entry	High barriers to entry reduce efficiency; potential entry may not limit the power of incumbent firms.	Few barriers to entry; barriers are due to the efficiency of incumbent firms; potential entry limits the economic power of incumbents.	• Barriers to entry can be present; e.g., from the economies of standardization
• Sources of economic power	Market power derives from horizontal power and from vertical arrangements.	Market power can only arise from horizontal power.	• Market power derives from horizontal factors but can be extended through vertical arrangements and strategic behavior
• Collusion	Increases profits, so firms can be expected to collude.	Is difficult for firms to enforce and thus is unlikely.	• Is possible with repeated encounters
• Where is collusion most likely	In concentrated markets.	In industries with government regulation or protection.	• In industries with repeated encounters and easy monitoring, as well as in regulated and protected industries
• Interpretation of the relationship between concentration and profits	Positive correlation indicates that more concentration reduces market efficiency and increases profits.	Positive correlation is more likely due to lower costs of larger firms.	• Positive correlation can be due to lower costs, market power, or strategic opportunities
• Relevant market for antitrust scrutiny should be	Defined narrowly so that pockets of concentration can be detected and addressed.	Defined broadly to include substitutes and imports.	• Define broadly to include substitutes and imports
• Conclusion about antitrust	Proscribe many practices as *per se* offenses.	Judge business practices in terms of their effects on efficiency and prices; use the rule of reason.	• Judge business practices in terms of impact on present and future competition; use rule of reason except for egregious cases such as price fixing
• Values underlying the perspective	Efficiency and fairness; government protection.	Economic efficiency; individual choice and responsibility.	• Economic efficiency; individual and collective responsibility

has a responsibility to protect citizens and society from the presence, and the abuse, of economic power. Antitrust policy and regulation are the principal public instruments for checking that power.

The structural approach to the analysis of economic power takes as its starting point the economic theories of monopoly and perfect competition. Perfect competition serves as the standard for evaluating an industry, and monopoly is its antithesis. Monopolistic pricing can be characterized by the generalized Lerner index given by

$$\frac{p - mc}{p} = \frac{1}{n|\epsilon|},$$

where p is price, mc is marginal cost, n is the number of firms in the industry, and ϵ is the price elasticity of demand.[29] The left side of the index is the percentage markup on price, and for a monopoly ($n = 1$), the markup set by the firm equals one divided by the (absolute value of the) elasticity of demand. As the number of firms increases, the markup decreases as price approaches marginal cost, which is the case of perfect competition. Market power is the ability to command prices above marginal costs and that power is greater the smaller the number of firms in an industry, other things equal. For example, in the chapter case, *The Staples-Office Depot Merger?*, the FTC and the court concluded that prices were higher in markets with only one office supply superstore than with two or three superstores. The structural approach thus views the economic performance in an industry as resulting from the conduct of firms, which is a function of the structure of the industry.

This theory indicates that economic power is a function of the number of firms in the industry or, correspondingly, their market shares. The smaller the number of firms in an industry the more likely they are to collude to raise prices and worsen the performance of markets. The focus of antitrust policy thus should be on the structure of the industry, and industries with substantial concentration—a substantial market share held by a small number of firms—should be regarded with suspicion. The structural approach finds support for this conclusion in empirical studies that show a positive correlation between industry concentration and profitability, as predicted by the Lerner index.

The structural approach thus holds that improving performance by controlling economic power requires dealing with industry structure rather than just with the conduct of market participants. Remedies for antitrust violations, too, should address the structure of the industry. These remedies include breaking up monopolies, ordering the divestiture of business units, requiring tight standards for mergers, and licensing technologies to all who desire to use them. Because a larger number of firms correlates with more competition and lower prices, the more firms in the industry the better. This approach also suggests that to ensure that there are enough firms for vigorous competition it may be desirable to protect firms from their rivals, particularly from predatory behavior or from unfair advantages such as not being able to purchase inputs at low prices (as reflected in the Robinson-Patman Act).

The Lerner index implies that market power arises from horizontal considerations. Market power can also occur from vertical arrangements in channels of distribution, as when a manufacturer requires a distributor or retailer to maintain a minimum price, to carry only the manufacturer's replacement parts, or to sell only within a specified territory. From the perspective of the structural approach, it is important to avoid foreclosing opportunities for competitors, since competition would then be less vigorous. Vertical arrangements thus should be viewed with suspicion because they limit opportunities for competitors and can increase economic power.

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[29] This relation is derived from a Cournot model of oligopoly.

The economic power of the incumbent firms in an industry can be checked by the threat of entry into the industry. The structural approach, however, is concerned about possible barriers to entry. Barriers to entry are said to include such factors as technological advantages, advertising and brand names, and capital requirements. Because of barriers to entry and economic concentration, the structural approach often views markets as fragile. Government thus has a role in helping markets function more efficiently.

When there are barriers to entry and economic power is concentrated in a relatively small number of firms, incumbent firms may have an opportunity to collude. The structural approach views collusion as more likely the more concentrated the industry. Collusion can take the form of price fixing among firms in an industry or a channel of distribution, as in the case of resale price maintenance. The empirical research reporting a positive correlation between concentration and profitability could reflect this collusion. This provides another rationale for focusing on concentrated markets.

Because economic power harms consumers through higher prices, the structural approach holds that it is important to scrutinize markets narrowly to identify market segments in which economic concentration and power are present. Markets thus should be defined narrowly so that pockets of economic concentration will not be missed. Similarly, it is important to keep market opportunities open. Consequently, restraints of trade and market foreclosures should be limited to those that are absolutely necessary. Antitrust thus should proscribe many practices that foreclose opportunities or restrain competition. Those practices should be *per se* illegal.

In summary, the structural approach is based on the structure-conduct-performance paradigm: Performance follows from conduct which follows from the structure of markets and industries and the economic power resulting from concentration and barriers to entry. Furthermore, collusion is more likely in concentrated industries. Antitrust policy should thus closely scrutinize market structure for economic concentration, market foreclosures, and restraints of trade. A *per se* standard should be applied to many practices, and remedies should be directed at structural factors.

THE CHICAGO SCHOOL

The Chicago school views the objective of antitrust policy as promoting economic efficiency, which may be understood in its simplest form as the maximization of producers' plus consumers' surplus. Since economic efficiency depends on the level of prices, the focus is on the prices that consumers pay. Thus, a price equal to marginal cost is efficient, whether it results from a perfectly competitive market or a monopolistic industry in which price is held down by the threat of entry. The focus of the Chicago school is thus on performance—the prices in markets—and not on the structure of the markets.[30] The Chicago school recognizes the potential for horizontal market power and its abuse but believes that competition, not government, is the best protector of consumers and the best promoter of economic efficiency.

Perfect competition is the ideal, but the conditions for perfect competition—many firms, a homogeneous product, technologies available to all firms, and complete information—are viewed as sufficient but not necessary for economic efficiency. Competition can be efficient even with a few firms in an industry, and given the opportunity, firms will compete vigorously. Profits provide the incentive to compete.

The Chicago school is skeptical about the nature and scope of barriers to entry. Claimed barriers such as advertising, brand-name advantages, and capital requirements are unlikely to be true barriers. Capital markets are viewed as efficient, so investors will provide capital for ventures that have prospects for at least a market rate of return. Any

[30] See Posner (1976) for an analysis of antitrust policy from the Chicago school perspective.

barriers to entry are likely to be due to the cost advantages of incumbent firms, and the inability of a potential entrant to raise capital thus is due to efficiency advantages of incumbent firms. Entry thus may be difficult not because of structural barriers but because of economic efficiency. Indeed, the incumbent firms are those that have survived competition.

The positive correlation between industry concentration and profitability that the structural approach views as reflecting the exercise of economic power could, according to the Chicago school, result from the greater efficiency of those firms that have survived the competitive process. Furthermore, as firms become larger their costs may become lower. Their markups above price thus would be higher but their prices lower than if the firms in the industry were smaller. That is, if as firms become larger their costs decrease and competition is present to force prices down, then consumers benefit. The firms could also benefit because of their lower costs and greater market shares. Consequently, markups and profits can be an increasing function of concentration, yet higher concentration can result in lower prices for consumers.

The Chicago school also holds that collusion among firms is unlikely to be sustainable because of the difficulties in monitoring and enforcing collusive agreements. Colluding firms have a strong incentive to cheat on an agreement by, for example, making secret discounts to customers. A collusive agreement thus may have the structure of a prisoners' dilemma in which each firm finds it in its interest to cheat on the agreement. Unless there is a clear mechanism for monitoring the agreement, collusion is unlikely to be sustained.

From the Chicago school's perspective, collusion is most likely to be sustainable when there is government protection or regulation. In that case, government causes high prices and economic inefficiency. Government regulation that precluded entry into the airline and trucking industries is viewed as having resulted in implicit collusion, with much of the rents captured by labor rather than by firms. Consistent with this perspective, during the Reagan administration the DOJ pressed its antitrust case against AT&T because it believed that regulation was inhibiting competition and technological progress. The DOJ, however, dropped its antitrust case against IBM because whatever market power IBM might have had would soon be dissipated by the rapid technological change in the computer industry.

Because barriers to entry are low and collusion is difficult to sustain, competition—both existing and potential—can be expected. This implies that there are few practices that should be *per se* illegal. Because it is the performance in the market that is important, the rule of reason should be used by courts in judging practices under the antitrust laws. In particular, vertical restraints are harmful only if the firm has horizontal market power, and hence it is horizontal market power that should be assessed for its consequences for performance.

In assessing horizontal power the relevant market should be defined broadly. Both present and potential competition should be considered because either can hold prices down. The relevant market thus includes not only the product in question but also substitutes for that product. The market definition should also include imports as well as domestic products. In the case of capital goods, the relevant market should include the market for used goods. In the case of a commodity such as aluminum, it should include the scrap and recycling markets as well as aluminum produced from bauxite. As an example of this perspective, Eastman Kodak has a 70 percent share of the U.S. color film market, 60 percent of the color paper market, and 70 percent of the wholesale photofinishing market. Its market dominance and anticompetitive practices had twice resulted in antitrust consent decrees. In 1994, however, the courts lifted both consent decrees. The courts concluded that Kodak did not have substantial market power because it had only a 36 percent market share worldwide. The courts concluded that if Kodak were to attempt to exercise market power by restricting output resulting in high

prices, imports and private label film would quickly rush into the U.S. market forcing prices down.

In summary, the Chicago school views the objective of antitrust as economic efficiency and competition as the best means of achieving efficiency. Perfect competition is not the only means of achieving that efficiency, however, as competition among a few firms can be sufficient for prices to be driven down. Barriers to entry are seen as low and collusion difficult to sustain, so market forces should correct most attempts to restrain trade. Furthermore, the relation between markups and concentration may be due to costs that decrease with the size of firms rather than due to the exploitation of market power. Because the objective is economic efficiency, the focus of antitrust policy should be on performance, and the market in which that performance is assessed should be viewed broadly.

The Chicago school does not conclude that practices such as vertical arrangements should be legal. Instead, it concludes that vertical arrangements may be pro-competitive rather than anticompetitive. Hence, they should not be *per se* illegal but rather should be considered under a rule of reason. This allows firms to adopt those practices that enhance industry performance but also allows successful prosecution of those practices that harm performance.

THE NEW IO APPROACH

The new IO approach to antitrust is derived from the economics of modern industrial organization. This approach rejects the static equilibrium approach taken by the Chicago school and focuses, for example, on the possibilities for strategic behavior that are present because of repeated interactions among market participants.[31] Even when firms act in a noncooperative manner, implicit collusion can result and can be sustained by expectations that cheating will be met with future punishment by other market participants. Similarly, interactions over time may allow firms to develop a reputation for a particular mode of behavior, such as price cutting in response to new entry into a market, that can deter potential entrants.

The possibilities for such strategic behavior are greater when there is incomplete information about factors important to the strategy choices of firms. A potential entrant may have incomplete information about the costs of incumbent firms and thus may be reluctant to sink costs required for entry, since it could turn out that the incumbent firms actually have cost advantages. Furthermore, incumbent firms may be able to deter entry by signaling that they have low costs even when they have high costs. Moreover, firms may be able to adopt market strategies that raise the costs to competitors, the possibility of which was alleged by the DOJ in blocking the Lockheed Martin and Northrup Grumman merger, as indicated later in the chapter.

The new IO approach is also concerned with the potential for anticompetitive behavior in markets characterized by network externalities and where compatibility is required. For example, the benefits from standardizing software development on a small number of platforms, such as Microsoft's Windows operating system, can result in the development of market power for the suppliers of the platforms. Similarly, network effects are important in businesses ranging from Internet commerce to credit cards to commercial real estate. That is, there are supply-side economies to larger networks, and larger networks are more valuable to customers. This generates incentives to compete to develop the largest network, and the winning competitor then has an "essential facility" and hence market power. Moreover, the owner of an essential facility may be

[31] See Holt and Scheffman (1989) for a discussion of this approach and its implications for antitrust.

able to use it to thwart innovation or block alternative technologies that provide potential competition to the facility. Microsoft's concern about potential competition to its dominance of the desktop operating systems from the Internet and Java were alleged by the DOJ to have led it to engage in anticompetitive practices.

As summarized in Figure 9-3 the new IO perspective on antitrust focuses on the objective of static and dynamic efficiency; thus, it is concerned not only about the performance of markets at a point in time but also about innovation and protecting incentives to develop new products and processes. Most markets are viewed as resilient, although some can have imperfections such as network externalities and compatibility requirements. Therefore, although ensuring choice among products and competition are the best protectors of consumers, government intervention may be warranted to ensure that standardization on a particular technology does not lead to market abuse and that incentives and opportunities for innovation are not thwarted. Whereas most markets can be efficient even if there are only a small number of competitors provided that there are low barriers to entry, others may require scrutiny. For example, the efficiencies from standardization can make it virtually impossible for a new firm to enter a market dominated by an incumbent. Easy entry thus cannot be assumed.

The new IO perspective agrees with the Chicago school that market power derives from horizontal considerations but holds that it can be extended through vertical arrangements. For example, in the 1998 antitrust case the government charged that Microsoft attempted to extend its market power to the Internet by bundling its Internet browser with its operating system and giving its browser away for free.

As another example, Toys 'R' Us had a 30 percent market share of the toy retailing market, which is not large enough to allow it to restrict output and drive prices up. The FTC, however, took antitrust action against Toys 'R' Us on the grounds that its horizontal market share was sufficient to exercise power over toy manufacturers. Toys 'R' Us allegedly attempted to persuade toy manufacturers not to sell popular toys to discount warehouses.

The new IO perspective acknowledges that competition with only a few firms can be efficient in a one-time encounter, but it also recognizes that repeated encounters provide an opportunity for implicit collusion. Collusion is more likely the better is the monitoring of the actions of firms. The price fixing cartels in graphite electrodes, citric acid, and lysine are evidence of the ability of firms to collude. The positive empirical relationship between concentration and profits thus could be due to lower costs or to the exercise of market power.

In examining the likelihood of the exercise of market power to reduce static and dynamic efficiency, the new IO perspective agrees with the Chicago school in viewing the market broadly in terms of substitutes. Those substitutes can be actual or potential. For example, the government opposed the merger of SBC and Ameritech, two former Bell operating companies, even though they did not compete in any market. The government argued that although they did not presently compete, with the continued deregulation of the telecommunications industry they were potential future competitors in both the long-distance market and in each other's local service market.

With respect to antitrust enforcement and policy, the new IO perspective concludes that business practices should be evaluated in terms of their effects on static and dynamic efficiency under the rule of reason except in egregious situations such as price fixing. Individuals can protect themselves when choice is available in the market, but government intervention can be warranted when choice and innovation are stifled through the exercise of market power.

The new IO approach thus concludes that there are situations in which firms can employ strategies that are anticompetitive, particularly when the product exhibits

network externalities or has compatibility and standardization considerations. The new IO approach has not at this point presented a comprehensive theory of antitrust economics, however. Instead, the approach is a collection of theories about behavior under particular structural and informational conditions.

Examples of the Differences in Antitrust Thought

VERTICAL ARRANGEMENTS

The principal area in which the structural and Chicago schools have differed is in regard to vertical arrangements. These arrangements take a variety of forms, but most involve restrictions imposed by a manufacturer on the sale or distribution of its products. Because most of these arrangements involve the foreclosure of a market opportunity or a restraint of trade, many vertical practices had been held by the courts to be *per se* illegal. Economic understandings developed by the Chicago school, along with a Supreme Court required to interpret laws containing imprecise and general language, changed the law on vertical arrangements. Many of the vertical arrangements that had been *per se* illegal during the 1970s are now considered under a rule of reason. Furthermore, the courts have upheld the use of many of the previously illegal vertical arrangements. These changes have occurred in the absence of new legislation.

Vertical price restrictions had been *per se* illegal since the Supreme Court decision in *Dr. Miles Medical Co. v. John D. Park & Sons,* 220 U.S. 373 (1911).[32] Nonprice vertical restrictions were not *per se* illegal, however, until the decision in *U.S. v. Arnold Schwinn & Co.,* 388 U.S. 365 (1967). In *Schwinn,* the Supreme Court decided that vertical nonprice restrictions on the resale of goods, such as territorial restrictions, restrictions on customers served, refusals to deal, and exclusive dealerships, were *per se* illegal.

The Chicago school found little logic in the court's reasoning because from its perspective a vertical arrangement could be harmful to competition only as a result of horizontal market power. That is, vertical arrangements do not create market power but can reflect market power resulting, for example, from a dominant market position. Indeed, vertical arrangements are generally viewed as tolerable unless there is horizontal market power. When that power is present, vertical arrangements should be judged under the rule of reason.

In reasoning about vertical arrangements, the Chicago school distinguished between interbrand and intrabrand competition. Intrabrand competition refers to competition between sellers of the same brand, as in the case of two Honda dealers competing against each other. Those dealers also compete against the sellers of other makes of automobiles—interbrand competition. If interbrand competition is vigorous so that a manufacturer does not have horizontal market power, restrictions on intrabrand competition will have little impact on the efficiency of the market.

Moreover, vertical arrangements that restrict intrabrand competition can make interbrand competition more efficient by, for example, strengthening dealer networks. Competition among stronger networks holds down prices, and stronger dealer networks can also reduce costs and better serve consumers on the nonprice dimensions of sales. Restrictions on intrabrand competition can also reduce transaction costs in a firm's channels of distribution, as Williamson (1975) has emphasized.

In addition, the Chicago school argued that competition does not take place only on price. Many products require the provision of information to enable consumers to

[32]As indicated previously a 1997 Supreme Court decision held that maximum price restrictions are to be considered under a rule of reason.

make informed choices. Many products must also be supported with service, both at the time of purchase and later. Manufacturers establish dealer networks to provide information and customer service, but the networks are often plagued by the free-rider problem. Customers can visit a dealer to obtain information and then buy from a discount store that offers neither information nor service. Customers then are free riding on the information provided by dealers. This weakens the dealer networks, resulting in less information being provided to consumers, who then may make less-informed decisions, reducing economic efficiency. Indeed, one reason that dealers charge a higher price than discount stores do is that they must have a margin adequate to cover the costs of a well-trained sales staff and a service facility.

In *Continental TV v. GTE Sylvania,* 433 U.S. 36 (1977), the Supreme Court, influenced by this reasoning, changed the precedent established in *Schwinn.* The court held that nonprice vertical restraints should be considered under a rule of reason. GTE Sylvania, a producer of television sets, had experienced declining sales. By the beginning of the 1960s it had only 1 to 2 percent of the U.S. market. Sylvania distributed its television sets through both company-owned and independent distributors which supplied retailers. In an attempt to increase its sales, Sylvania changed its method of distribution by eliminating its distributors and selling directly to franchised retailers. Sylvania also required its retailers to sell only from a specified location. This provision allowed Sylvania to control the number of retail outlets in an area. The objective of the changes was to attract a stronger but smaller group of retailers that would have the incentive to promote Sylvania TV sets. The franchised dealers could sell other brands and were not restricted in the prices they could charge.

The change proved successful. Dealers promoted Sylvania sets, increasing its market share to 5 percent by 1965. In 1965 Sylvania decided to authorize a new retailer in San Francisco. Continental TV, a Sylvania dealer there, protested and asked permission to sell Sylvania TVs in Sacramento. Sylvania refused, and Continental decided to sell them there anyway. Sylvania then refused to sell to Continental. Continental sued, and the federal district court, following *Schwinn,* held in its favor. The Court of Appeals reversed the decision and ordered a retrial on the grounds that it did not believe that *Schwinn* was applicable in this case. Continental appealed, and the Supreme Court took the case as an opportunity to reconsider whether vertical arrangements such as the one in question should be *per se* illegal.

The Supreme Court concluded that "*Per se* rules of illegality are appropriate only when they relate to conduct that is manifestly anticompetitive." As indicated in *Northern Pacific,* such conduct must have a "pernicious effect on competition" and have no "redeeming virtue." In considering whether this was true of the practice in Sylvania, the court found that "The market impact of vertical restrictions is complex because of their potential for a simultaneous reduction in intrabrand competition and stimulation of interbrand competition . . ." The court then held that because of the possibility of the stimulation of interbrand competition a vertical restriction could not be said *a priori* to have a pernicious effect on competition or to have no redeeming virtue. Hence, nonprice vertical arrangements were not *per se* illegal. The court pointed to the possible redeeming virtues stating,

> new manufacturers and manufacturers entering new markets can use the restrictions in order to induce competent and aggressive retailers to make the kind of investment of capital and labor that is often required in the distribution of products unknown to the consumer. Established manufacturers can use them to induce retailers to engage in promotional activities or to provide service and repair facilities necessary to the efficient marketing of their products. Service and repair are vital for many products,

such as automobiles and major household appliances. The availability and quality of such services affect a manufacturer's good will and the competitiveness of his product. Because of market imperfections such as the so-called "free rider" effect, these services might not be provided by retailers in a purely competitive situation. . . .

The Supreme Court affirmed the decision of the Court of Appeals and thus changed the *per se* rule of illegality for vertical practices to a rule of reason, reversing what had served as law for the previous 10 years. Since *Sylvania,* most nonprice vertical restrictions have been considered under a rule of reason. The new IO perspective generally agrees with this result as now does the structural perspective.

The Supreme Court followed the *Sylvania* decision with two decisions extending the applicability of the rule of reason in nonprice vertical arrangements. In *Monsanto Co. v. Spray-Rite Service Co.,* 465 U.S. 752 (1984), the court held that terminating a price-cutting dealer after complaints from several other dealers was not a *per se* violation. In *Business Electronics Corp. v. Sharp Electronics Corp.,* 485 U.S. 717 (1988), the court held that terminating a dealer relationship because another dealer had complained about its price cutting was not a *per se* violation unless there had been an agreement between the manufacturer and the complaining retailer. The rationale for these decisions was again that the practices could have the redeeming virtue of stimulating interbrand competition and thus should be tried under a rule of reason.

The chapter case *Apple Computer and Mail-Order Sales* raises related issues about nonprice vertical arrangements.

PREDATORY PRICING AND ENTRY DETERRENCE

The traditional perspective on predatory pricing is that a firm may attempt to drive a competitor out of a market by cutting prices below costs. A firm with deep pockets can bear the short-term losses from the price cutting, and once the weaker rival is forced from the market it can set higher prices to recoup its losses. The standard used to determine if a firm is engaging in predatory pricing is whether price is below marginal cost. Marginal cost is not easy for a court to measure, however, so a standard such as average variable cost is often used as the proxy.[33]

The Chicago school's criticism of the traditional view of predatory pricing focuses on its aftermath. Suppose a firm were to engage in predatory pricing and successfully drive a competitor out of the market. Could it then raise its price to a level higher than that prevailing prior to the predation? The answer depends on whether there are barriers to entry in the industry. If there are not, and the Chicago school is skeptical about the presence of barriers to entry, then raising the price will simply attract new entrants. This will force the price down, and the predation will have been for naught. Recognizing this, a firm will not engage in predatory pricing in the first place. In this sense, a market is self-policing.

If there were high barriers to entry, a firm could exercise market power. The principal barrier to entry recognized by the Chicago school is that which results from the sunk costs of incumbent firms. Even those sunk costs, however, are not a long-run deterrent to entry because once an entrant has entered the market, the incumbent firm no longer has a reason to price below long-run costs. Also, if the incumbent firm has sunk costs, then the competitor it is attempting to drive out of the market also is likely to have

[33]See Areeda and Turner (1975).

sunk costs. Prices thus would have to be cut below short-run marginal costs to drive out the competitor.[34]

Even when predatory pricing is possible, it may not be desirable. An industry leader may not have an incentive to engage in predatory pricing, since it would have to incur losses on a much larger volume of sales to drive a smaller competitor from the market. Predation in this case may not be in the interest of an industry leader, even though the industry may have barriers to entry.

The conclusion of the Chicago school is that predation is unlikely to be successful and so it will not be attempted. The price cutting observed in markets thus is likely to be the result of competition rather than of predation. Moreover, applying antitrust law to alleged predation can discourage firms from competing on price, resulting in higher prices.

Research from the new IO perspective, however, casts some doubt on these conclusions. One theory of potential entry is based on the recognition that a potential entrant may not know whether an incumbent firm has a cost advantage. Because of this incomplete information about the incumbent's costs, the incumbent may be able to signal that it has low costs, even though its costs are actually high, by setting a price equal to the average of what a low-cost and a high-cost incumbent firm would choose. This pricing strategy can deter some entry that would be desirable from the perspective of economic efficiency.[35]

limit pricing

Another theory developed from the new IO perspective indicates that an incumbent firm may have an incentive to engage in predatory pricing in one or several geographic or product markets to develop a reputation as a "tough" competitor, thus discouraging entry by new firms.[36] The development of such a reputation hinges on the incomplete information of potential entrants about, for example, the costs of the incumbent firm. A reputation for toughness, then, may deter entry into a market even if no real barriers to entry are present.

Whatever the appropriate economic theory of predatory behavior, antitrust scrutiny of price cutting poses a serious concern. In practice it is difficult to distinguish between vigorous price competition and predatory pricing. Even in a competitive industry, prices will rise and fall in response to shifts in demand, and when entry occurs, prices will adjust as other firms change their outputs or exit the industry. Applying antitrust law in situations in which prices are being cut could stifle price competition. For example, new entrants may adopt a strategy of setting low prices to build market share and utilize their capacity efficiently. Precluding an incumbent firm from responding to those prices would restrain competition and possibly prevent output from being produced at the lowest possible industry cost.

As an example, in 1992 American Airlines revamped its pricing by grouping fares into four classes, and it then cut full-fare prices substantially. Continental and Northwest filed an antitrust suit under the Sherman Act charging that American was trying to drive them out of the market with predatory prices and then use its increased market power to raise prices. The plaintiffs asked for damages of $1 billion, which would be trebled in the event of a guilty verdict. Robert Crandall, CEO of American, said that Continental and Northwest were "hoping to accomplish in the courtroom what they couldn't accomplish in the marketplace." A jury acquitted American.

[34]This argument would not hold, however, if an incumbent firm had a cost advantage over a competitor or a potential entrant. The incumbent then could set a price just low enough that the potential entrant would stay out of the market. In this case, the threat of potential entry limits the incumbent firm's ability to increase its price but does not force the price down to the level of costs.

[35]See Milgrom and Roberts (1982a) for a development of this theory.

[36]See Kreps and Wilson (1982) and Milgrom and Roberts (1982b) for a development of this theory.

COLLUSION AND PRICE-FIXING

All schools of thought agree that collusion and horizontal price fixing are anticompetitive, and as indicated, the DOJ has vigorously prosecuted price fixing and bid-rigging cases and obtained criminal convictions and prison sentences for those found guilty. The schools, however, disagree about how likely it is that collusive arrangements can be sustained.

The structural perspective on collusion and price fixing is that firms will collude when possible, and so tight antitrust supervision is necessary. The Chicago school, however, points to historical evidence indicating that cartels break down as a result of cheating by their own members. Furthermore, the larger the number of firms that are required to collude, the more difficult it is to prevent cheating and defection. For collusion to be sustained, the colluders must have a means of detecting cheating, as in the case of bidding on government contracts when the bids are publicly reported.

The new IO approach, however, reaches a different conclusion. Because firms in the same industry will be in competition over time, firms have a broad set of strategies that may sustain implicit collusion even when the detection of cheating is imperfect.[37] A firm that believes that another firm is cheating on an implicit agreement to maintain high prices can punish that firm by lowering its own price. If the second firm is confident that the first indeed has an incentive to punish any perceived cheating, the second firm may have no incentive to cheat. The threat of punishment in repeated encounters thus can in principle enforce high prices even when there is no explicit agreement among firms and no communication between them. Price cutting thus may be a means of punishing deviations from implicit collusion rather than an indication of vigorous competition or predation.

Mergers and Merger Guidelines

Mergers may create horizontal market power or restrain competition in supply or distribution channels. The passage of the Celler-Kefauver Act in 1950 decreased the number of mergers, but when the Reagan administration took office in 1981 it signaled that it did not view mergers with the same hostility as had prior administrations. Indeed, mergers were viewed as potentially beneficial to efficiency and competition. Mergers can yield cost efficiencies and synergies that benefit consumers. Mergers can also remove bad management and eliminate inefficient cross-subsidization of one line of business by another.

To provide guidance to firms about when it was likely to initiate an investigation, the DOJ issued revised merger guidelines in 1982.[38] The FTC issued similar guidelines, and in 1992 the agencies jointly issued updated guidelines.[39] The guidelines reflect both structural and Chicago school perspectives by identifying where market power may be present and whether it can be exercised. The guidelines also reflect the new IO perspective with respect to the dynamics of competition. In contrast to the structural perspective, the guidelines do not assume that market power will be automatically exercised.

The merger guidelines identify collusion as the means to the exercise of market power. Its exercise requires a restriction of output to increase equilibrium prices and profits. The smaller a firm's market share the more it has to restrict output to achieve a given price increase, so unless a firm has a dominant market position, collusion must be the means to the exercise of market power. In accord with the Chicago school's perspective, the greater the number of firms that would have to collude to restrict output the more likely collusion is to break down. Collusion is easier the more homogeneous the product, since then there is only one dimension of competition that must be monitored under an explicit or implicit collusive arrangement. Collusion is more difficult when substitutes are available in the relevant markets and is easier when repeated encounters provide an opportunity to punish cheating.

[37]See Green and Porter (1984) for a presentation and empirical test of this theory.
[38]See Ordover and Willig (1983) for an evaluation of the DOJ merger guidelines.
[39]Department of Justice and Federal Trade Commission, Horizontal Merger Guidelines, Washington, D.C., April 2, 1992.

In its definition of the relevant market, the DOJ and FTC focus on "economically meaningful" markets. Those are defined in terms of products and geographic areas in which a firm could restrict output and thereby impose a price increase above prevailing levels. To do so, a firm would have to have horizontal market power. Assessing market power involves consideration of substitute products, since an attempt to raise prices may cause consumers to switch to a substitute. It also takes into account imports and the resale market for durable goods. When the DOJ or FTC concludes that market power is present, it also considers whether the acquired firm would fail in the absence of the merger.

To implement this perspective in the case of horizontal mergers, the DOJ and FTC use the Herfindahl-Hirschman index (HHI) to measure concentration in an industry. The HHI is defined as the sum of the squares of the market shares of firms, or

$$HHI = \sum_{i=1}^{n} s_i^2,$$

where n is the number of firms in the industry and s_i is the market share of the ith firm expressed as a percent. The HHI for a perfectly competitive industry is zero and for a monopoly is 10,000. If 2 firms with 10 percent market shares merge, the HHI increases by 200. For an industry with 10 firms with equal market shares, the HHI is 1,000, and for an industry with 2 firms with 30 percent shares and 8 with 5 percent shares, the HHI is 2,000.

The guidelines indicate that the agencies will not challenge a merger in which the postmerger HHI is below 1,000. They are unlikely to challenge a merger in which the postmerger HHI is between 1,000 and 1,800 (six equal-size firms) unless the merger would increase the HHI by more than 100. In the case of an industry with an HHI above 1,800, they are unlikely to investigate if the merger increases the HHI by less than 50 and are likely to investigate if the HHI increases by at least 100. The agencies, however, will take into account other factors that affect market power or its exercise.

The use of the HHI requires identification of the relevant market. One approach to identifying the relevant market is to attempt to identify the scope of substitutes for the product. Another approach is to use data to identify which products compete with which others. This approach was used in the chapter case *The Staples-Office Depot Merger?*

The chapter case *The Staples-Office Depot Merger?* considers an important merger decision centering on the effect of a merger on competition and prices.[40] In this case, using product price data the courts defined the relevant market as office supply superstores, and since there were only three superstores, the HHI was high. Moreover, the HHI would increase substantially if two superstores merged. A merger, however, can result in greater efficiency, and in 1997 the FTC issued a revision to Section 4 of the merger guidelines. While identifying the potential efficiencies from merger, the FTC stated that the efficiencies considered should be net of the efficiencies that would have been realized in the absence of a merger. The FTC also stated that any efficiency claims must be substantiated and verifiable, and that efficiencies would likely carry little weight if the merger were to create a monopoly or near-monopoly. The efficiency considerations played an important role in this case.

[40]See also Baker (1997) and Dalkin and Warren-Boulton (1999) for analyses of the Staples-Office Depot case.

In addition to the structural factors involving market concentration, the antitrust agencies may take into account technological change in an industry and the rate of innovation. A large market share by merging companies in an industry that experiences rapid technological change may be of little concern because market share can be won or lost relatively quickly. Similar reasoning led to dropping the government's antitrust suit against IBM.

The antitrust enforcement agencies frequently will negotiate with the merging companies under the "fix it first" approach in which areas of antitrust concern are dealt with prior to the merger being consummated. For example, to preserve competition the DOJ required the $1.75 billion divestment of MCI's Internet business as a condition for approval of its 1998 merger with WorldCom. Similarly, in 1996 the FTC required Ciba-Geigy and Sandoz to sell part of their gene-therapy technology as a condition for their merger to form Novatis.

After the end of the cold war the Department of Defense encouraged U.S. defense contractors to consolidate as a means of lowering costs during a period of reduced military spending. Several mergers resulted, including that of Lockheed and Martin Marietta. In 1997 Lockheed Martin and Northrup Grumman, the second and third largest military contractors, respectively, announced a merger. The DOJ with the support of the Department of Defense challenged the merger on the grounds that it would threaten national defense by limiting competition. For example, the merged company would be a supplier of components for other firms that compete with it, and it could raise the prices for those components to make its rivals less competitive for defense contracts. After months of negotiations attempting to fix the concerns, the two companies abandoned their merger plans.

Antitrust enforcement has also been active in health care industry mergers. The FTC blocked the four largest pharmaceutical wholesalers from merging into two companies. The FTC also blocked several mergers of hospitals in small towns where the merger would have reduced competition substantially, even though cost reductions would be realized through the consolidations.

Nonhorizontal mergers, either vertical or conglomerate, do not affect market concentration and so are not necessarily a threat to competition. Non-horizontal mergers are a concern only to the extent that they have horizontal consequences, such as eliminating a potential entrant. The FTC blocked the merger of SBC and Ameritech because the two companies would be potential competitors once the telecommunications industry has been deregulated. A vertical merger could also serve to create barriers to entry if it forced potential entrants to enter more than one level of the market simultaneously or make entry at one level more difficult.

State Antitrust Enforcement

As the DOJ and FTC became more reluctant to bring to the courts certain types of antitrust cases during the 1980s, state attorneys general became more active in filing antitrust suits under state and federal law.[41] For example, in the first year of the Reagan administration the FTC brought only 41 consumer fraud cases, which was half the number under the Carter administration. (In 1997 the FTC brought 245 consumer fraud cases.) The attorneys general of 19 states joined the DOJ in the chapter case *The Microsoft Antitrust Case.* State attorneys general also negotiated the tobacco settlements in 1997 and 1998. States have also been more active on issues affecting their residents.

[41]See Hayes (1989) for an analysis of state antitrust laws. The FTC at times joins with state attorneys general in the investigation of cases.

For example, in 1998 25 state attorneys general threatened to file an antitrust suit against the major airlines for predation against small airlines with the intent of forcing them out of airports in their states. The attorneys general deferred action awaiting Clinton administration guidelines intended to promote competition.

Compliance

Compliance with the antitrust laws involves both procedures and policy. Firms provide training and guidance to employees who may encounter situations in which antitrust concerns are present. For example, in its Standards of Business Conduct, Hewlett Packard provides guidance on trade practices (vertical arrangements), price discrimination, unfair practices, and competitor relations (horizontal practices).

A firm may find itself in a situation in which a contemplated practice falls in an area in which the antitrust laws and the court decisions interpreting them are unclear or changing. In addition to seeking the advice of counsel, the firm should examine whether the purpose of its proposed practice is anticompetitive. In *Sylvania* the court held that the policy of territorial restrictions served the purpose of stimulating interbrand competition. In such a case, a firm should use the practice that is the least restrictive in achieving the desired purpose. In *Sylvania* the court on retrial acquitted GTE-Sylvania because it concluded that the practice of terminating a dealer who violated its policy was the least restrictive means of achieving the intended purpose of strengthening its dealer network. Hewlett Packard's policy on terminating relationships reflects the decisions in *Sylvania, Monsanto,* and *Sharp* as well as the remaining ambiguity: "Terminating relationships with customers can lead to litigation. It is therefore important that the decision to terminate be made carefully and for valid business reasons. HP's Legal Department should be consulted before terminating any such relationship without the customer's consent. Possible termination of one customer's contract should not be discussed with another customer."[42]

The Politics of Antitrust

Antitrust policy has important distributive as well as efficiency consequences for firms and consumers, so it is the subject of political action.[43] In the 1970s the FTC adopted an aggressive posture and initiated several new investigations, some of which were directed at such politically influential industries as insurance and funeral homes. The political pressure on Congress was such that it passed the Federal Trade Commission Improvements Act of 1980, which reined in the FTC.[44] The framework for political analysis presented in Part II of this book provides the basis for analyzing the politics of antitrust policy.

Most proposed changes in the antitrust laws fail because of the intensity of the ensuing politics and the complexity of the issues. In 1986 the Reagan administration launched legislative initiatives to revise the antitrust laws. It proposed amending Section 7 of the Clayton Act (which deals with mergers) by replacing "may be" and "tend to" with "significant probability." It also proposed relaxing merger standards for firms

[42]Hewlett Packard Corporation, "Standards of Business Conduct," Palo Alto, CA, 1989.
[43]See Shugart (1990) for a perspective on antitrust and interest group politics.
[44]See Weingast and Moran (1983), Moe (1985), and Wilson (1989, Chap. 13) for differing perspectives on the relationship between the FTC and Congress.

that had been injured by foreign competition. Because of a concern that private antitrust suits were being used to stifle competition, the administration proposed eliminating treble damages except for price fixing violations. The FTC and the Reagan administration also proposed that the FTC authority over unfair advertising be eliminated, because the term *unfair* was too vague to be enforced. None of these initiatives was successful.

Democrats in Congress have also sought revisions in the antitrust laws, attempting to counter DOJ and FTC decisions to stop bringing suits for certain vertical restraints. They have also attempted to revise the standards established by the Supreme Court in *Monsanto* and *Sharp* involving nonprice vertical arrangements. In 1991, for example, the Senate passed a bill that would make it easier to win suits against retail price maintenance practices. Both activist groups and discounters who had been cut off by manufacturers backed the bill, arguing that consumers were injured by the nonprice arrangements. They were opposed by manufacturers and specialty retailers, who viewed vertical arrangements as promoting interbrand competition. The bill was not enacted.

As mentioned in the previous section, 25 state attorneys general threatened antitrust actions against major airlines for predatory pricing and in addition launched an investigation of the three alliances formed by the six largest airlines.[45] The Clinton administration had proposed guidelines that specified when action would be taken against a major airline for driving a low-cost competitor out of a market by lowering prices substantially and providing more seats on routes. The administration reported that fares for last-minute travel had skyrocketed and that the number of cities served by more than two airlines had fallen by 41 percent in less than 10 years. The airlines countered with a lobbying and public advocacy campaign charging that the Clinton administration was attempting to reregulate the airline industry. One airline hired a former Clinton administration official who argued there was no basis for intervention in the industry. The airlines increased their political contributions by 66 percent in the 1997–1998 election cycle, and backed a bill in Congress that would have delayed for at least a year the implementation of any guidelines. The House Transportation Committee rejected the bill in favor of requiring notification by the Clinton administration before any guidelines were implemented.

The politics of antitrust also manifests itself in legislative action seeking exemptions or providing for affirmative defenses in antitrust suits. As an example, for decades the soft drink industry had been organized around exclusive territories for its distributors. Soft drink manufacturers produced syrup, which was sold to bottlers who were allowed to distribute the soft drink only in a specified geographic area. In July 1971, the FTC issued complaints against seven national-brand soft drink syrup manufacturers, including Coca-Cola, PepsiCo, Seven-Up, and Canada Dry. The complaints charged that exclusive territorial distributorships were illegal vertical restraints of trade. With the strong support of the National Soft Drink Association, in 1972 a bill was introduced in the Senate to permit exclusive territorial arrangements for soft drink manufacturers.

The FTC complaint was resolved in 1978 when the FTC ruled that the exclusive distributorships were anticompetitive. The decision was appealed and was still before the courts when Congress finally acted. After 10 years of effort, the soft drink manufacturers and their bottlers succeeded in December 1980 in obtaining an effective antitrust exemption. The Soft Drink Interbrand Competition Act provided protection from antitrust suits if soft drinks were in "substantial and effective competition." Despite opposition by the DOJ, the bill passed the Senate on an 86 to 6 vote, passed the House on a voice vote, and was signed by President Carter.[46]

[45] *The New York Times*, July 25, 1998.

Summary

The principal antitrust laws are the Sherman Act, the Clayton Act, and the Federal Trade Commission Act. The Sherman Act pertains to monopolization and restraints of trade. The Clayton Act addresses monopolization and restraints of trade in their incipiency and provides the basis for government authority over mergers. The act also restricts price discrimination. The Federal Trade Commission Act prohibits unfair competition and unfair practices.

Both the DOJ and the FTC have enforcement responsibilities for the Sherman and Clayton Acts, but only the FTC can enforce the FTC Act. Considerable enforcement of the antitrust laws occurs through private lawsuits, most of which are filed by one firm against another. Private lawsuits are stimulated by the prospect of treble damages.

Antitrust enforcement and court decisions are influenced by schools of thought about the role of antitrust policy and the likelihood of adverse economic effects from business practices. The structural approach is based on the structure-conduct-performance paradigm and focuses on the structure of industries and on practices that may foreclose opportunities for competitors. The Chicago school focuses on economic efficiency and views markets as both resilient and the consumer's best protection. Both the structural approach and the Chicago school view horizontal market power as a concern but have differed about how likely collusion is and how substantial are barriers to entry. The Chicago school concludes that most practices should be considered under the rule of reason, whereas the structural approach supports a wider range of *per se* illegal practices. The new industrial organization perspective emphasizes the interactions among competitors that can result from repeated interactions and incomplete information. These strategic interactions have the potential to sustain implicit collusion and limit entry into industries. This perspective also focuses on factors such as network externalities and standardization that can provide the basis for anticompetitive practices.

These schools of thought have influenced the thinking of government antitrust officials and judges. In the case of vertical arrangements and maximum price restrictions, the courts reversed earlier decisions in holding that nonprice vertical arrangements are no longer *per se* illegal but are to be considered under a rule of reason. Certain arrangements that enhance interbrand competition but harm intrabrand competition have been held by the courts to be legal under the antitrust laws. The DOJ and FTC have applied revised guidelines to the surveillance of mergers. The guidelines are based both on industry structure and on the likelihood that market power can be exercised.

Antitrust policy has important distributive consequences and so is the subject of considerable political activity. The complexity of the issues, however, makes significant legislative changes in the antitrust laws difficult to achieve.

[46] The case *The Malt Beverage Interbrand Competition Act* in Baron (1996) concerns the beer industry's attempt to obtain similar protection.

CASES

Apple Computer and Mail-Order Sales

Apple Computer Corporation of Cupertino, California, started the personal computer industry. At first most of its sales were to hobbyists. As the market began to develop, Apple shifted its emphasis to home computers. By 1981, however, the market changed again as business and professional demand began to grow. The personal computer industry had been born, and in 1981 Apple was the market leader. Apple faced competition from several firms, including Compaq, Radio Shack, Sinclair, and Commodore. IBM was expected to enter the market with its own personal computer in the near future.

The distribution channel had become increasingly important as the market evolved to the personal computer phase. Apple computers were sold primarily through its 1,100 dealers, and dealers sold both over the counter and by mail order. Mail-order sales were generally made to knowledgeable buyers who did not need point-of-purchase information about the selection of a computer and to customers located in areas with no Apple dealers. At the end of 1981, Apple decided to emphasize personal service. It changed its distribution policy, no longer allowing sales that could not be supported with both maintenance and personal service. The policy change meant that telephone and mail-order sales would no longer be permitted. Apple sent out amended contracts to its dealers and included a letter explaining its new policy. In the letter, Apple Vice President Fred Hoar wrote, "Mail-order sales are neither suited to providing the consumer education that emerging markets require, nor are they structured to provide the customer satisfaction that has become associated with the Apple name." Hoar added that no exceptions would be made.

Most Apple dealers reacted favorably to the policy. They faced the problem of customers coming to their stores, obtaining the information needed to make educated choices, and then buying by mail order to save money. The suggested list price for an Apple III computer was $3,495, and Apple dealers could sell it at any price they wished. Some mail-order houses sold it for $2,800. Apple sold the computer to dealers for $2,325 when they made multiple-unit purchases. Edward E. Faber, president of the 182-store ComputerLand system, which sold Apple computers at the suggested list price, welcomed the change in policy. "It's discouraging to do all the presale education and support of a prospective customer, and then have him buy the equipment somewhere else." Faber said that it cost about $150,000 to open a store that provided sales support and maintenance. "If the dealer makes that kind of investment, he must get a return on the sale of the product," he explained. Losing sales to mail-order houses reduced the incentive to provide the service that Apple desired.

Joseph Sidney, owner of Micro Business World of Tarzana, California, said Apple's new policy "stinks" and was "an outright effort to fix prices." He maintained that the mail-order houses adequately educated customers about the choice of a computer and provided sufficient service. Joseph Monroe of Consumer Computers of San Diego said that 75 percent of his $6 million sales were by mail order and Apple's new policy would put him out of business. The mail-order houses argued that Apple was adopting the policy because its dealers were pressuring it to do so.

Mail-order sales of Apple computers were also made by nondealers such as New York's 47th Street Photo, which sold 3,000 Apples a year. Nondealers would not reveal where they obtained their computers, but it was generally understood that they purchased them from Apple dealers who had overpurchased.

One of the most vocal critics of Apple's policy was Francis Ravel, owner of Olympic Sales Company of Los Angeles. "There are about 150 black sheep like us. All we want to do is to buy and sell and be left alone . . . They can't tell us not to ship from our store. Hewlett-Packard wouldn't dare do that." Ravel filed a suit in federal district court in Los Angeles charging that Apple's policy violated federal antitrust law. Ravel asked for a preliminary injunction. Apple described the suit as "completely without merit."

Steve Jobs, cofounder and chairman of Apple, said: "What we're doing is the state of the art in antitrust law. We could go all the way to the Supreme Court." He added: "It's not discounting that bothers us. It's the smile—or rather, the lack of it—on our customer's face when service isn't adequate." ■

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PREPARATION QUESTIONS

1. What sections of the antitrust laws pertain to Apple's new policy? What case law is applicable? Is this a *per se* offense or will the case be governed by a rule of reason?
2. On whom is the burden of proof and what does that party have to show?
3. What defense should Apple use?
4. What decision should the court make?

The Staples-Office Depot Merger?

On September 4, 1996, Staples, Inc., the fast-growing No. 2 office supply retailer, agreed to buy Office Depot, Inc., the industry leader, in a transaction valued at $3.36 billion. Staples and Office Depot were among the pioneers that a decade earlier developed the successful concept of office supply superstores. By pursuing aggressive marketing strategies, charging low prices, and leveraging their buying power and efficient mass supply channels to cut costs, the companies created a profitable, rapidly growing industry. Staples had the second largest superstore chain in the United States with approximately 550 stores in 28 states, $3 billion annual revenues, and net income of $74 million. With more than 500 stores in 38 states, Office Depot had the largest sales, approximately $5.3 billion, and net income of $132 million. The only other office supply superstore chain was OfficeMax, Inc.

The companies had identified significant cost reductions as the main reason for the merger. Thomas Stemberg, chairman and CEO of Staples, said, for example, that the two companies bought envelopes from three separate vendors. "We'd entertain proposals from all three," he said, "and we'd say, you can have all of the business or none of it."[1] Stemberg also commented on the combined entity's ability to pass through the savings to customers: "Both Staples and Office Depot were founded a decade ago to bring savings to purchasers of office products. The combined company, with over $10 billion in revenues, will be able to offer even greater value to our customers through increasing operating efficiency and purchasing scale."[2]

The companies, as well as commentators, anticipated from the outset that the transaction would raise antitrust concerns: "The merged organization—with 1,100 stores in 96% of the country's largest metropolitan areas—will reduce the number of distributors for manufacturers, giving them less bargaining power. The deal is also likely to draw close scrutiny from the U.S. antitrust regulators."[3] David Fuente, chairman and CEO of Office Depot, referred to these issues, stressing both that the companies did not compete with each other in many geographical areas, and that the market was much larger than the joint company. Fuente said, "The reality today is that there's very little overlap in our store base and geographical locations, and two or three years from now that might not be the case if both companies continue to grow at the pace that we were predicting."[4] Fuente also stated, "Our new company operates in an office products industry which is very large, highly fragmented and growing rapidly. As a result of this strategic combination, we will be better positioned to participate fully in the enormous growth opportunities that exist in our industry."[5] Juris Pagrabs, vice president of Investor Relations of OfficeMax, the

[1] *The Wall Street Journal,* September 5, 1996.

[2] *Business Wire,* September 4, 1996.
[3] *The Wall Street Journal,* September 5, 1996.
[4] *The Wall Street Journal,* September 5, 1996.
[5] *Business Wire,* September 4, 1996.

third office supply superstore chain, offered a positive view on the announced merger, "We think the merger is quite good for the industry. It's better to have two players instead of three."[6]

The Federal Trade Commission (FTC) did not share this view. The FTC contended that the overall expected effect of the proposed merger on customers would be negative, since it expected the merger to reduce competition significantly in many markets. Underlying this contention was a claim that the expected pass-through to customers of the efficiencies created by the merger would not be large enough to offset the effect of the reduction in competition. The issue, thus, revolved around the assessment of the expected economic consequences of the planned merger. To assess these effects, verbal pronouncements such as "reduction in competition," "respective market," and "efficiencies that pass-through to customers" had to be reduced to quantifiable measures.

THE ANTITRUST REVIEW

Following the procedure required by Hart-Scott-Rodino, Staples and Office Depot filed a Premerger Notification and Report Form with the FTC and the Department of Justice on October 2, 1996. This was followed by a 7-month investigation by the FTC, in which additional information was requested from the companies, hundreds of boxes of documents were examined, depositions were taken of 18 officers and employees of both Staples and Office Depot, and (*ex parte*) discovery of third-party information was made. The FTC voted 4 to 1 to challenge the merger. In an attempt to satisfy the FTC's objections, Staples and Office Depot negotiated a consent decree with the FTC staff that would allow the merger if the companies would sell 63 stores to OfficeMax for $109 million to reduce the concentration in those local markets. The FTC, however, in a shock to the companies, rejected the negotiated consent decree by a vote of 3 to 2, and in a revision of its merger guidelines it expressed skepticism about projected cost efficiencies from mergers that cannot "be verified by reasonable means." The FTC then filed a motion with the District Court of the District of Columbia on April 9, 1997, seeking a preliminary injunction of the merger. The matter thus was for the court to decide.

[6]*The Wall Street Journal*, September 5, 1996.

THE COURT'S REVIEW

In deciding whether to issue a preliminary injunction, the court required the FTC to show (1) that its challenge was *likely* to succeed on the merits after complete consideration of the facts; and (2) that in "balancing the equities," it was of greater harm to let the transaction proceed and later try to reverse it than to enjoin it until the review process reached its final conclusion. Since the preliminary proceedings raised the key issues that would be raised in the complete review process, the hearing on the preliminary injunction would in effect resolve the entire case. The findings of fact by the court are considered to evaluate whether these conditions were satisfied.[7]

LIKELIHOOD OF SUCCESS ON THE MERITS

The Geographic Market

There was no dispute that the appropriate geographic market was 42 metropolitan areas in which Staples and Office Depot competed with each other prior to the merger agreement, as well as several areas in which they planned to begin competing in the near future.

The Product Market

The court defined the product market for antitrust purposes as "the sale of consumable office supplies *through office superstores*," thereby accepting the FTC's claim that although the products Staples and Office Depot sold had perfect functional substitutes sold by other stores such as Wal-Mart, the market should be viewed as office superstores only. The court based its conclusion on pricing data.

The FTC compared Staples' prices in geographic markets in which Staples was the only office superstore (termed one-firm markets) with markets in which it competed with Office Depot or OfficeMax (two-firm markets), or both (three-firm markets). Prices in one-firm markets were, on average, 13 percent higher than in three-firm markets.[8] Prices were compared at one point in time (January 1997), and they were based on a sample accounting for 90 percent of Staples's sales. Additional, less comprehensive data showed that average prices were well over 5 percent higher in one-firm markets than in two-firm markets. Based on the merger guidelines, price differences of 5 percent or more were viewed by the court as indirect evidence that office supply superstores were a distinct product market for antitrust purposes. The FTC presented similar evidence regarding Office Depot's prices based on a sample of 500 items (also from January 1997). Prices in Office Depot-only markets were on average well over 5 percent higher than they were in three-firm markets. Additional data showed that on average Office Depot's prices were highest in its one-firm markets and lowest in its three-firm markets.

[7]These findings are based on the public version of the decision. The court examined specific price data submitted by the parties in classified documents. The public version of these documents, as well as the decision, withheld all these data.

[8]These price data had been submitted by the companies.

The FTC also had to determine if the office superstores represented a largely independent market or were part of a much broader office supply market of which the companies had only a 5.5 percent market share. To do this, the FTC considered the cross elasticity of demand between products in the superstore market and their functional substitutes in the broader markets. (The cross elasticity of demand is the percentage change in the demand for one product divided by the percentage change in the price of another product.)

Retail and discount chains other than office superstores carried consumable office supplies (functional substitutes), and the court identified the set of other sellers as Wal-Mart, Kmart, and Target; wholesale clubs such as BJ's and Price Costco; computer and electronic stores such as Computer City and Best Buy; independent retail office supply stores; mail-order firms; and contract stationers. The court reasoned that "these competitors, albeit in different combinations and concentrations, are present in every one of [the superstores' markets]." Despite this fact, Staples and Office Depot were able to charge higher prices in their one-firm markets than they did in their two- and three-firm markets. The court found a lower price sensitivity to the existence of other superstore competitors. For example, Staples maintained a "warehouse-club-only" price zone, which was a zone where it competed with a warehouse club but not with other superstores. The data the FTC presented showed average variation in prices of only 1 to 2 percent between warehouse-club-only zones and one-firm markets; that is, the cross-elasticity of demand was low, suggesting that the stores were not competing in the same market. These findings led the court to conclude that the office superstore market was distinguishable from other markets for consumable office supplies and should thus be considered the product market for antitrust purposes.

Perceptions and Behavior of Market Participants

The court also based its definition of the product market on several additional considerations. First, in all of their internal documents and communications, both Staples and Office Depot viewed the relevant competitive market as comprised of the office superstores only. For example, when determining whether to enter a new metropolitan area, both companies repeatedly referred to markets without office superstores as "non-competitive," regardless of the existence of other sellers of office supplies. Staples used the phrase "office superstore industry" in strategic planning documents. In a monthly report entitled "Competitor Store Opening/Closing Report," which it circulated to its Executive Committee, Office Depot reported all competitor store closings and openings, but the only competitors referred to were Staples and OfficeMax.

Also, both companies price checked the other superstores much more frequently and extensively than they checked other retail outlets. Executives of non-superstore competitors, who were summoned to testify by the FTC were aware of the distinct nature of the superstore market. The court concluded that Staples and Office Depot considered the other superstores as their primary competition.

Cost Differentials

Staples and Office Depot offered two cost differential explanations for the average price differentials between one-, two- and three-firm markets. The first explanation was that there were differences in wages and rents across localities. These differences, however, were not correlated with the price differences across localities, so the court rejected this explanation.

The second explanation was related to differences in advertising and marketing costs. Indeed, these costs were higher, on average, in one-firm markets than in two- and three-firm markets. Yet, the court found that the differences in costs were too small to account for the significant price differentials shown by the FTC. The court rejected the second explanation, as well.

Distinctive Features

The court also distinguished between the superstores and other distribution channels in terms of appearance, physical size, format, variety of items offered, and the type and character of targeted and served customers. The court concluded, ". . . office supply superstores look far different from other sellers of office supplies . . . No one entering a Wal-Mart would mistake it for an office superstore."

THE PROBABLE EFFECT ON COMPETITION

Concentration

Once the relevant product market was defined, the concentration analysis was straightforward. The court examined the concentration within each identified geographic market. The HHIs in many of the geographic markets were at "problematic levels" even before the merger. The least concentrated market had an HHI of 3,597, and the most concentrated had 6,944. In contrast, if the merger were completed, the least concentrated market would have an HHI of 5,003, and many areas would have an HHI of 10,000 (i.e., monopoly). The Merger Guidelines stated that unless mitigated by other factors, an increase in the HHI in excess of 50 in a post-merger, highly concentrated market, raised significant competitive concerns. The average increase in the HHI caused by the Staples-Office Depot merger would have been 2,715 points.

The court also examined concentration statistics. The merged Staples-Office Depot was expected to hold a dominant market share in 42 geographic markets across the country. In 15 markets the combined market share would be 100 percent.

The court's definition of the relevant product market had, in effect, determined the concentration issue. If the product market had been defined more broadly as, for example, "consumable office supplies" or "office supplies," the concentration figures would have been much lower. The product market definition had a similar effect on the consideration of the entry.

Entry

The court assessed the existence and significance of barriers to entry with respect to the relevant market. Staples and Office Depot claimed that the rapid growth in overall office supply sales had encouraged, and would continue to encourage, expansion and entry. They pointed to the fact that all office superstore entrants had entered within the last 11 years, and they also offered testimony regarding the general ability of mass merchandisers of various types to change store configurations and shift shelf space to accommodate new demands. Yet, the FTC showed that new superstore entrants did not survive as self-sustaining businesses. The number of office superstore chains dropped from 23 to 3 over the few years preceding 1997. All but Staples, Office Depot, and OfficeMax had either closed or been acquired. The failed office superstore entrants included large, well-known retailers such as Kmart, Montgomery Ward, Ames, and Zayles.

The court determined that a "new office superstore would need to open a large number of stores nationally to achieve the purchasing and distribution economies of scale enjoyed by the three existing firms." The court thus found that it would be extremely unlikely that a new office superstore would enter the market and thereby lessen the anticompetitive effects of the proposed merger.

The court also concluded that even in one-firm markets no retailer had successfully expanded its consumable office supplies to the extent that it constrained superstore pricing increases to less than 5 percent. Entry into the relevant market was therefore rejected as a factor likely to offset the merger's expected anticompetitive effects.

Efficiencies

Staples and Office Depot submitted an "Efficiencies Analysis" that predicted that the combined business would achieve savings of between $4.9 and $6.5 billion over the first 5 years. The companies also claimed that additional dynamic efficiencies would result because the superstores' suppliers would become more efficient as a result of the increase in their sales to the combined business. Staples and Office Depot argued that two-thirds of the cost savings would be passed along to consumers.

The court, however, found these figures to be inflated and unreliable and preferred the evidence and expert testimony the FTC provided. First, the court noted that the estimates provided by the companies exceeded by almost 500 percent the figures that were presented to the two boards of directors in September 1996, when they approved the transaction, and which had been disclosed to the companies' shareholders and the SEC in the Joint Proxy Statement/Prospectus of January 1997. Second, the companies estimated only the overall savings that the merger was expected to yield and did not deduct the savings both companies would generate as stand-alone entities if the merger did not materialize. Third, large parts of the argued savings were unverifiable—the companies' experts could not provide figures and explicit methods of calculation to justify the projections.

The court also found the companies' projected pass-through of savings to customers in the form of lower prices to be unrealistic. The court did not find a convincing argument for the combined business to significantly increase its pass-through rate to two-thirds from the historical pass-through rate of 15 to 17 percent established by the evidence.[9]

Pricing Practices

The court used the historical pass-through rate as an indication of the likely future rate. In a similar manner, as an indication of the likely future behavior and practices of the combined entity, the court used the historical pricing practices of the two companies, which had been established in identifying the relevant product market. This further supported the likely anticompetitive effects of the merger: "The evidence of the defendants' own current pricing practices, for example, shows that an office superstore chain facing no competition from other superstores has the ability to profitably raise prices for consumable office supplies above competitive levels. . . Since prices are significantly lower in markets where Staples and Office Depot compete, eliminating this competition with one another would free the parties to charge higher prices in those markets, especially those in which the combined entity would be the sole office superstore." The court therefore concluded that the FTC had shown that its case was likely to succeed on its merits. The court then considered the equities.

[9]One of the FTC's expert witnesses presented uncontroverted evidence that Staples has historically passed through 15 to 17 percent of firm-specific cost savings in the form of lower prices to consumers.

BALANCE OF EQUITIES

The court concluded that, " 'Unscrambling the eggs' after the fact is not a realistic option in this case." The combined company's post-merger plans included consolidation of warehouse and supply facilities, closing 40 to 70 superstores, changing the name of Office Depot stores to "Staples," renegotiating contracts with manufacturers and suppliers, and consolidating management, which was likely to lead to layoffs of many Office Depot key personnel.

The court then turned to consider the possible private equities. Staples and Office Depot argued that the principal private equity at stake was the loss to Office Depot shareholders, who would likely lose a substantial portion of their investments if the merger were enjoined. While acknowledging this possible harm to Office Depot shareholders "at least in the short term," the court concluded that such private equity alone did not justify a denial of preliminary injunction where the public equity clearly supported it.

The court issued the preliminary injunction requested by the FTC. Shortly thereafter, Staples and Office Depot terminated their merger agreement. ■

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PREPARATION QUESTIONS

1. What was the key finding by the court that effectively decided the case for a preliminary injunction?
2. Was the court's analysis of the pricing data appropriate for determining the likely effects of the merger?
3. Could Staples and Office Depot be reasonably expected to pass two-thirds of any cost efficiencies through to consumers?
4. Since Staples and Office Depot and their attorneys understood the antitrust laws and the facts the court would examine, why did they believe that the FTC and the courts would not block the merger?
5. As a commissioner of the FTC how would you have voted on the consent decree negotiated by your staff?

The Microsoft Antitrust Case

At a 1995 meeting with Intel, Microsoft's Chairman and CEO Bill Gates said, according to an Intel executive, "This antitrust thing will blow over. We haven't changed our business practices at all."

On May 18, 1998, the U.S. Department of Justice (DOJ) together with 19 states filed an antitrust action against Microsoft Corporation in U.S. District Court. The DOJ complaint was filed under Sections 1 and 2 of the Sherman Act (the Act) to restrain anticompetitive conduct by Microsoft, the world's largest supplier of computer software for personal computers (PCs), and to remedy effects of its alleged past unlawful conduct. The complaint alleged that Microsoft "began and continues today, a pattern of anticompetitive practices designed to thwart browser competition on the merits, to deprive customers of choice between alternative browsers, and to exclude Microsoft's Internet browser competitors," most notably Netscape Communications Inc.

The DOJ specifically alleged four violations of the Act:

1. **Microsoft engaged in "unlawful exclusive dealing and other exclusionary agreements"** (Section 1 of the Act). The DOJ contended that Microsoft's agreements requiring other companies not to license, distribute, or promote non-Microsoft products, or to do so only on terms that materially disadvantage such products, and its agreements with PC manufacturers restricting modification or customization of the PC boot-up sequence and screens "unreasonably restrict competition." These agreements allegedly restricted the access of Microsoft's software competitors to significant segments of the market. The DOJ claimed that "the purpose and effect of these agreements are to restrain trade and competition in the Internet browser and PC operating system markets."
2. **Microsoft engaged in "unlawful tying"** (Section 1 of the Act). The DOJ viewed the Windows operating systems and Microsoft's Internet Explorer browser as separate products—since they were sold in different markets, their functions were different, there was separate demand for them, and they were treated by Microsoft and other industry participants as separate products. The DOJ claimed that it was socially "efficient for Microsoft not to tie them and/or to permit [PC manufacturers] to distribute Windows 95 and Windows 98 without Microsoft's Internet browser software." The DOT argued that "Mircosoft had tied and plans again to tie its Internet browser to its separate Windows operating system, which has monopoly power," where the "purpose and the effect of this tying are to prevent customers from choosing among Internet browsers on their merits and to foreclose competing browsers from an important channel of distribution."
3. **Microsoft monopolized the PC operating systems market** (Section 2 of the Act). The DOJ contended that Microsoft "possesses monopoly power in the market for PC operating systems." The DOJ claimed that Microsoft had maintained that power through anticompetitive conduct.
4. **Microsoft attempted to monopolize the Internet** (Section 2 of the Act). The DOJ claimed that Microsoft had targeted software products that had the potential to compete with or facilitate the development of products to compete with its Windows operating system and thereby "erode Microsoft's Windows operating system monopoly." Microsoft allegedly engaged in a "course of conduct, including tying and unreasonably exclusionary agreements," for the purpose of obtaining a "monopoly in the Internet browser market."

In contrast to a private antitrust suit the burden of proof on the plaintiff was lower in a federal suit, since only sanctions to stop abusive practices and not damages were sought. "To do that, the Government must convincingly show 'the power and conditions from which injury can be inferred,' according to Herbert Hovenkamp, a University of Iowa law professor."[1]

THE 1995 CONSENT DECREE

The DOJ also sought to show that Microsoft remained dismissive of a long-running antitrust investigation, even after Microsoft had signed a consent decree with the DOJ in 1995. The DOJ had filed an action against Microsoft under Section 2 of the Sherman Act for "unlawfully maintaining its monopoly in the market for PC operating systems." The complaint alleged, among other things, that Microsoft had engaged in anticompetitive agreements and marketing practices directed at PC manufacturers, and the consent decrees restricted those practices.

In 1997 the DOJ filed a complaint against Microsoft alleging that it had violated the consent decree.[2] In response, Judge Thomas Penfield Jackson, in whose court the 1999 antitrust case was also tried, issued a preliminary injunction requiring Microsoft to offer Windows independently of Internet Explorer. In July 1998 a federal Court of Appeals overturned Judge Jackson's order stating that the courts should not be "second guessing the claimed benefits of a particular product design." Applied to the current antitrust case this ruling could provide a defense to Microsoft if it could demonstrate that consumers benefited from the integration of Internet Explorer and the Windows operating system. The DOJ sought to show that they did not so benefit.

MICROSOFT'S POSITION

Microsoft maintained that because of the nature of the industry it did not have a monopoly in the PC operating systems market nor could it become a monopoly in the Internet browser market, despite its current market shares in these markets. The rapid change in technology and in the business environment did not allow a single company to establish and maintain a monopoly. Microsoft also argued that antitrust law definitions such as monopoly identified by market share did not apply to the software market as they did to traditional markets. Since it could not be categorized as a monopoly, Microsoft contended that its business conduct, even if as depicted by the DOJ, did not amount to unlawful conduct and in fact was common in the industry. Microsoft also rejected many of the DOJ's factual claims regarding its actual conduct and intent. For example, Microsoft argued that Windows and Internet Explorer were integrated to provide consumers with a superior product.

ANTITRUST ECONOMICS OF A DYNAMIC NETWORK INDUSTRY

An industry's economics are key in any antitrust case and in particular in the Microsoft case. First, this was the first major case in which a software maker had been taken to trial for alleged antitrust violations. Terms such as "monopoly power" must be understood in the context of the relevant industry. Second, the DOJ demonstrated at least some of the alleged "course of conduct" factual claims with credible clarity. Therefore, it was likely that the decision, and the expected appeal by the loser, would focus on fundamental economic issues rather than on factual controversies.

The key aspect of the economics of the software market, as viewed by antitrust enforcers, were as follows.[3]

Network Effects in a Dynamic Industry

The term "network" applies to the underlying economics of an industry, not to the hardware or software associated with the product. Network effects, or network externalities, are present when an individual's demand for a product is positively related to the usage of other individuals.[4] Network effects might arise in the context of computer software, for example, because users prefer a word processing program that is also used by others. Network effects can also work through complementary goods. Software developers prefer to write to an operating system used by many people, and conversely the greater the number of popular software applications written for it, the greater the demand for the operating system. Network effects are also present in more traditional industries, but the development of industries such as computers, communications, and software have been driven by network effects.

Network Effects and Standards

Even if there were a dominant firm in an industry, multiple technological standards could exist. However, in industries with network effects consumers have incentives to use products compatible with those used by others. A product or system that has a larger community of users than does

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[1]*The New York Times,* January 18, 1999.

[2]See the discussion in Chapter 2.

[3]The discussion in this section is primarily based on a presentation by Daniel Rubinfeld, Deputy Assistant Attorney General at the Antitrust Division of the U.S. Department of Justice, before the 1998 Spring Symposium of the Software Publishers Association, San Jose, California, March 24, 1998.

[4]See Besanko, Dranove, and Shanley (1996), pp. 554–557 for an introduction to network effects. See also Shapiro and Varian (1999) for a treatment of competitive strategy in information and network industries.

its rivals thus may become the dominant standard even if the products of rivals are not compatible with its own. Such a firm may have incentives to adopt competitive strategies to support a single standard by preventing the products of rivals from achieving compatibility.

Industry standards take many forms, and the existence of an industry standard is neither a necessary nor a sufficient condition for the marketplace to be dominated by a single firm. In some instances, as with the Windows operating system, standards are proprietary and the supporting competitive strategies could make entry more difficult and competition less effective. Even when standards are proprietary, however, competition to become the standard can be intense, and competition among multiple standards can persist when network effects are sufficiently limited, or offsetting factors sufficiently strong, to permit multiple networks to survive in the marketplace.

A Single Industry Standard

In markets characterized by strong network effects where users gain by adopting compatible technologies and where economies of scale in the production of complementary goods are present, a dominant standard could emerge in the market. For example, it could be more efficient to write applications for one rather then multiple operating systems. That network effects make it efficient to have a single standard, however, does not imply that the winning standard must be owned or controlled by a single firm.

Predatory Pricing, Incompatibility, Tying and Leveraging as Anticompetitive Strategies

In dynamic high-technology industries characterized by network effects and incentives to move to a common standard, predatory strategies could be used by a dominant firm to thwart socially efficient entry and innovation. To illustrate such a strategy, suppose a firm is considering innovating in a product market that is complementary to the product controlled by a dominant firm; for example, Netscape developing an Internet browser that is complementary to Microsoft's dominant Windows operating system. A dominant firm could attempt to make the innovations of competitors unprofitable by, for example, making its product incompatible with the innovator's product. It could also discourage efficient innovation by offering at a predatory price a close substitute for the competitor's innovative product. A dominant firm could also integrate its version of the innovator's product with its own dominant product and use its existing channels of distribution (e.g., PC manufacturers that rely on the dominant product) to dominate the market for the innovator's product.

Antitrust enforcers are thus concerned about "leveraging" strategies, including product integration, tying, and bundling. Leveraging occurs when a firm uses its advantage from operating in one market to gain an advantage in another market. Leveraging by dominant firms can be procompetitive or anticompetitive, depending on the circumstances. Procompetitive leveraging can be viewed as a form of vertical integration to increase the efficiency of the firm's distribution system, economize on information costs, or provide benefits to customers. Leveraging can be anticompetitive if it raises rivals' costs of competing in the marketplace or reduces their incentives to innovate.

Tying occurs when a firm conditions the purchase (or license) of one product on the purchase (or license) of another product. Procompetitive reasons for tying include cost savings and quality control (it could be easier to sort out the source of quality problems with a tied sale than if the products were sold separately). Tying could also be an anticompetitive leveraging practice if it foreclosed competition in network markets. For example, a dominant firm with a product protected by intellectual property rights could license its technology only to those firms that agree to also license that firm's complementary product. Moreover, the complementary product could build on the firm's next generation technology. Such a tying arrangement could allow the dominant firm to create a new installed base of users of its next generation technology, which could effectively foreclose opportunities for competing firms to offer their products or to develop competing next generation technologies.

Microsoft argued during the trial that many of its competitors employed strategies similar to its own. Competitive strategies identical to those of a dominant firm are likely to be harmless when used by firms with little or no market power. Moreover, the fact that firms with little market power use the same competitive strategies suggests that there are efficiencies associated with those practices. When used by a firm with substantial market power, however, the efficiency benefits of those strategies could be

outweighed by the anticompetitive effects associated with reducing innovation.

Tipping in Dynamic Network Industries

Antitrust enforcers are also concerned when an industry with network effects is subject to tipping. Tipping is a point at which the presence of two incompatible products becomes unstable, with the market tipping in favor of a single product and standard. To which product a market tips depends on users' expectations about the strength of network effects, the likely outcome of market competition, and future technological developments. In markets characterized by tipping, exclusionary practices that deny access to established standards can be effective. In such situations, anticompetitive behavior needs to be addressed quickly, since once the market has tipped, it may be very costly or even undesirable to undo the anticompetitive effects (e.g., to switch locked-in users to another standard or to impose different compatibility requirements).

THE TRIAL

The trial consisted of two phases. The first was a decision by Judge Jackson on the specific allegation made by the DOJ. If Judge Jackson found for the DOJ, the second phase would focus on remedies. The DOJ would propose remedies, but the decision would rest with the court. Whatever the decision as rendered by Judge Jackson, the case was expected to be appealed. A decision by the Court of Appeals could take 2 years. If Microsoft were found guilty, it would face a rash of private lawsuits seeking damages. Several private lawsuits had already been filed, and two were scheduled to go to trial in 1999.

The DOJ's Case

The DOJ's complaint was based on a set of factual claims, which together were intended to establish Microsoft's "unlawful course of conduct."

A Monopoly in PC Operating Systems

- Microsoft possessed monopoly power in the market for PC operating systems (OS). Its Windows operating systems were used on over 80 percent of all Intel-based PCs, the dominant type of PC in the United States. More than 90 percent of all new Intel-based PCs were shipped with a pre-installed version of Windows. PC manufacturers were said to have no commercially reasonable alternative to Microsoft's operating systems for their PCs.
- Barriers to entry in the market for PC operating systems were high. One of the most important barriers stemmed from the network effects and was due to the number of software applications that must run on an operating system to make it attractive to end users. Since end users wanted a large number of applications and most applications were written to run on Windows, it would be prohibitively expensive to create an alternative operating system to run the programs that ran on Windows.
- Consequently, the most significant potential threat to Microsoft's operating system monopoly was not from existing or new operating systems but from new software products that could support, or themselves become, alternative "platforms" to which applications could be written, and which could be used on multiple operating systems.

Microsoft's Course of Conduct

The DOJ alleged and presented evidence to the effect that to protect its Windows monopoly against potential competitive threats and to extend its operating system monopoly into other software markets, Microsoft engaged in a series of anticompetitive activities, including:

- Agreements tying other Microsoft software products to its Windows operating system;
- Exclusionary agreements precluding companies from distributing, promoting, buying, or using products of Microsoft's software competitors or potential competitors; and
- Exclusionary agreements restricting the right of companies to provide services or resources to Microsoft's software competitors or potential competitors.

The Threat of Internet Browsers and Java

Potential competition for Microsoft's Windows operating system monopoly could come from the Internet. The DOJ cited Microsoft's CEO, Bill Gates, as saying in May 1995 that the Internet posed a serious

potential threat to Microsoft's Windows operating system. Mr. Gates warned his executives:

> A new competitor 'born' on the Internet is Netscape. Their browser is dominant, with a 70% usage share, allowing them to determine which network extensions will catch on. They are pursing a multi-platform strategy where they move the key API [applications programming interface] into the client to commoditize the underlying operating system.

James Barksdale, president and chairman of Netscape, described a June 1995 meeting with Microsoft as exceptional. He said, "I have never been in a meeting in my 35-year business career in which a competitor had so blatantly implied that we would either stop competing with it or the competitor would kill us."[5]

The DOJ asserted that Internet browsers, and in particular Netscape's Navigator browser, posed a competitive threat to Microsoft's operating system monopoly in two basic ways.

- If application programs could easily be written to run on multiple operating systems, competition in the market for operating systems could be revitalized. The combination of browser technology and a new programming language known as Java held this promise. Applications written in Java, a language developed by Sun Microsystems for writing software that would run on any operating system, threatened one of the key barriers to entry protecting Microsoft's operating system monopoly. Browsers represented the most significant vehicle for the distribution of Java technology to end users. Microsoft recognized that the widespread use of browsers could increase the distribution and use of Java and hence threaten Microsoft's operating system monopoly.
  The DOJ presented documents and e-mail messages indicating that Microsoft regarded Java as a key threat. A Microsoft document said that it was a "strategic objective" for Microsoft to "kill cross-platform Java" by expanding the "polluted Java market"—Microsoft's altered version of Java. A senior Microsoft executive identified Java as "our major threat" in an e-mail sent on July 14, 1997, and added that Netscape's Internet browser was Java's "major distribution vehicle."
- Netscape's browser was itself a "platform" to which many applications were being written and to which more and more applications would be written if it remained successful. Since Netscape's browser could run on any PC operating system, the success of this alternative platform threatened a key barrier to entry.

[5]See Cusumano and Yoffie (1998) for an analysis of Netscape and its competition with Microsoft.

Microsoft's Response to the Threat

Microsoft embarked on an extensive campaign to market and distribute its own browser Internet Explorer (IE). Microsoft executives had described this campaign as a "jihad" to win the "browser war." The DOJ acknowledged that continued competition on the merits between Navigator and Internet Explorer would result in greater innovation and the development of better products at lower prices. According to the DOJ's allegations, however, Microsoft was unwilling to compete on the merits. The DOJ cited Microsoft's Christian Wildfeuer writing in February 1997 that Microsoft concluded that it would "be very hard to increase browser share on the merits of IE 4 alone. It will be more important to leverage the OS asset to make people use IE instead of navigator."

The DOJ claimed that Microsoft thus "began, and continues today, a pattern of anti-competitive practices designed to thwart browser competition on the merits, to deprive customers of a choice between alternative browsers, and to exclude Microsoft's Internet browser competitors. . . Microsoft's conduct with respect to browsers is a prominent and immediate example of the pattern of anti-competitive practices undertaken by Microsoft with the purpose and effect of maintaining its PC operating system monopoly and extending that monopoly to other related markets."

A DOJ economics expert asserted that Microsoft also engaged in predatory pricing by giving away its Internet Explorer browser for free. This was done to thwart the threat posed by its main rivals, Netscape and Sun, in Internet software, even though Microsoft had spent more than $100 million a year since 1995 on browser development.

MICROSOFT'S DEFENSE

Microsoft challenged the government's witnesses and sought to support its fundamental line of argument. Microsoft argued that it did not have monopoly power, that any apparent monopoly power could be quickly dissipated in a dynamic industry, that its behavior and practices were not abusive and were similar to standard practices in the industry, and that consumers were not harmed but instead benefited from its practices. Microsoft argued, for example, that it was not a monopolist, since it faced competition from Sun's Java programming language and from Internet browsers. It also maintained that price discounts to PC makers were not favoritism to reward them for not carrying rival products but instead were related to volume. Microsoft also indicated that 100 million copies of Netscape Navigator had been downloaded in 1998, so the distribution of rival software products and Java-based products was easy. As the defendant Microsoft did not have to prove its arguments but instead needed only to raise substantial doubt about the DOJ's allegations.

Microsoft also argued that if it had monopoly power in operating systems it would have charged a much higher price for Windows. A government witness countered that all that the price charged for Windows indicated was "that Microsoft is not maximizing its shortrun profits." The government witness also testified that it would be difficult to determine the exact standard for concluding that a price for Internet Explorer was predatory, but the fact was that Microsoft charged a "zero price."

Microsoft witnesses argued that the relevant market was not operating systems but was much broader and included the Internet and handheld computers, for neither of which Microsoft had a dominant position. Microsoft executives denied allegations of coercive behavior and argued that consumers benefited from its innovations. Paul Maritz, senior group vice president, testified, "Ironically, the very thing that makes Windows valuable to computer manufacturers, software publishers and customers . . . is now under attack in this lawsuit. The popularity of Windows, owing entirely to Microsoft's efforts to innovate, evangelize and license the software cheaply to promote wide distribution, is derided as monopoly."

Much of Microsoft's defense was directed at countering the testimony of government witnesses. A considerable portion of that testimony centered on recollections of and notes taken at private meetings between Microsoft and companies such as Apple, Intel, and Netscape. Microsoft witnesses provided different interpretations of what had transpired at the meetings than had the government's witnesses. Paul Maritz, for example, testified that Microsoft opposed Intel's development of software because that software was second-rate and that Microsoft had withheld software support for Intel's MMX microprocessor because of overzealous intellectual property claims by Intel. Maritz also denied that he had ever told an Intel executive that Microsoft would "cut off Netscape's air supply." He also said that Microsoft's reluctance to continue producing software for Apple's Macintosh was due to concerns that Apple might fold.

Microsoft also denied that its practices had harmed Netscape through exclusive arrangements with and financial incentives to PC makers and Internet service providers. A Microsoft attorney stated, "Whatever those arrangements were, whatever measure of exclusivity they created for a period of time, Netscape was able to gain a substantial number of new users. There was no foreclosure of consumer choice."[6]

Microsoft's direct testimony was attacked effectively by DOJ lead attorney David Boies. *The Wall Street Journal* wrote, "Microsoft's defense is in disarray and its executives and economist have been battered so badly on the witness stand that the judge has questioned key elements of the Redmond, Wash., software giant's case."[7] *The New York Times* referred to the trial as "a humbling courtroom experience" for Microsoft.[8] *Fortune* said, "We're seeing Microsoft's defense go down in flames."[9] Microsoft countered that the DOJ's attacks amounted to showmanship and that the case would be decided on the facts and the law. The DOJ's trial strategy of challenging the credibility of Microsoft's witnesses was not only directed at the decision by Judge Jackson but was also intended to protect the decision from being overturned on appeal on matters of credibility. An appeals court could, of course, overturn a decision based on insufficient evidence or on the law.

One major faux pas for Microsoft occurred in Senior Vice President James Allchin's testimony. Allchin showed a videotape produced by Microsoft that purported to show "performance degradations" in the Windows 98 operating system when

[6]*The New York Times,* February 28, 1999.
[7]*The Wall Street Journal,* February 18, 1999.
[8]*The New York Times,* February 28, 1999.
[9]*Fortune,* March 1, 1999.

Internet Explorer was removed from the system. The videotape had been produced to challenge the testimony of a government witness that Internet Explorer could be removed from the Windows operating system without any significant performance degradation. Boies challenged the veracity of the videotape, and the government consultants asked to review it noticed that the title bar displayed the words "Internet Explorer" even though the Microsoft narrator said it had been removed. Allchin maintained that the computer shown was the one from which its browser had been removed. Two days later Microsoft admitted that the videotape was prepared in a studio and showed a number of different computers to simulate its claims about performance degradation. Microsoft then prepared a new videotape that observers said showed that the system without Internet Explorer performed well, although applications requiring a browser, of course, did not work.[10]

In another glitch in its defense, an executive of Compaq Computer called by Microsoft admitted under questioning by the DOJ that there was no "commercially viable" alternative to the Windows operating system. The DOJ produced documents from Compaq and depositions of its executives indicating that it may have taken the Netscape Navigator icon off its desktop display and chosen Internet Explorer because of fear of retaliation by Microsoft. Microsoft responded with documentation that AOL had objected to including the Navigator icon on the desktop because it was linked with a competitor of AOL. Microsoft pointed to depositions by Compaq executives stating that Microsoft had never objected to the Navigator icon appearing on the desktop. Microsoft had objected when Compaq planned to delete the Internet Explorer icon.

Also, a Microsoft executive testified that it had not attempted to undermine Java. The DOJ, however, produced a memo from Bill Gates stating that he was "hardcore about NOT supporting" Java. When the executive tried to explain what Gates meant, the judge abruptly cut him off stating that it was abundantly clear what Gates meant.

[10]Another Microsoft executive introduced a videotape that purported to show that it was easy to download Netscape Navigator using a modem. Under questioning by the DOJ the witness admitted that the videotape had omitted several key steps in the downloading process and had used a high-speed LAN connection rather than a modem. The DOJ produced a videotape showing the full set of steps involved in the download, and the Microsoft executive stated that the download took between 45 minutes and an hour with a modem.

Although in its direct testimony Microsoft focused on challenging the government's allegations and evidence, in its rebuttal testimony and closing arguments it could emphasize other arguments. It could argue that it had a right to innovate and that unrestrained innovation benefited consumers. This could be coupled with the identification of the real benefits from its innovations. It could also argue that government-imposed remedies would be worse for consumers than the alleged antitrust violations themselves. For example, any government supervision or regulation of the software industry could stifle innovation and work to the disadvantage of consumers. These arguments could not only be presented in court but could be used in an attempt to influence through political channels any remedies proposed by the DOJ. Such efforts could be directed at both Congress and the White House.

DEVELOPMENTS OUTSIDE THE COURTROOM

Three developments occurred during the trial that lent support to Microsoft's argument that the market was constantly changing and monopoly power was a transient phenomenon at most. A fourth development, Microsoft's record earnings, supported the DOJ's monopoly power claim.

The AOL-Netscape-Sun Alliance

In November 1998 AOL announced that it would acquire Netscape for $4.2 billion and form an alliance with Sun Microsystems. Microsoft asserted that the deal fundamentally changed the industry's landscape and that it therefore was sufficient grounds for the DOJ to drop the lawsuit. DOJ witnesses such as William Harris, chairman and CEO of Intuit Corporation, stated that they did not view the new alliance as an industry shift that diminished Microsoft's dominance. "There's a great deal of merger activity in this industry. Microsoft is rumored to be in discussions for acquisitions. I don't think the AOL-Netscape deal will be the last one we hear of," Harris said. Judge Jackson refused to dismiss the case.

Apple's Revival

Since the 1998 release of the iMac, Apple's new, low-end computer line, Apple's sales and market share increased significantly. Apple computers use Mac-OS, instead of Windows, as their operating system. Microsoft used Apple's comeback to counter the claims that Microsoft had established a monopoly in the operating systems market. DOJ expert witnesses generally dismissed as "marginal" the competitive threat Apple posed to the Windows platform.

The Growing Recognition of Linux

Microsoft lawyers asserted that Linux, a free Unix operating system, posed a potential threat to Windows because several of Microsoft's chief competitors were writing software to run on it. In fact, on March 1, 1999, Oracle, Intel, Dell, and Hewlett Packard all announced substantial investments in Linux, and IBM announced greater offerings of computers using Linux. Although Linux had several million devotees around the world, it held an insignificant share of the operating system market. A DOJ expert witness firmly rejected the proposition that it threatened Windows: "Whatever role Linux may have, it is not expected to constrain the monopoly power of Microsoft... If you truly believe this product is going to constrain Microsoft's market share, then run, don't walk, to your broker and sell Microsoft stock short."

Microsoft's Surging Earnings

In January 1999 Microsoft reported a 75 percent increase in earnings, far exceeding the most optimistic projections of Wall Street analysts. A DOJ lawyer asked Microsoft's economics expert if consistently high profits were an indicator of monopoly power. The witness conceded that persistently high profits suggest "some impediment to competitive alternatives." But, he added, such profits could be due to a very valuable asset, protected by intellectual property rights, like Windows. "You simply cannot infer monopoly power from profits," he said.

REMEDIES

If the court found against Microsoft, the next issue was which remedies to impose. Many companies in the industry, including rivals of Microsoft, were fearful that the cure imposed could be worse than the disease. The principal fear was that some form of government supervision or oversight of the industry would be imposed that would impede innovation and technological change. Although the court would decide on the remedy and Microsoft was expected to appeal any unfavorable decision, the matter of remedies would not be solely a judicial one. Instead, the issue was likely to have a political dimension with industry members as well as politicians lobbying for preferred remedies. Senator Slade Gorton (R-WA) was critical of the DOJ's case, and commentators believed that Vice President Al Gore and the White House would take an interest in the remedy phase of the trial.

Possible remedies were generally classified as behavioral or structural. Behavioral remedies sought to eliminate the abusive and exclusionary practices of Microsoft without altering its control of the Windows operating system. Structural remedies focused on eliminating Microsoft's alleged Windows operating system monopoly either by breaking up the company or by replicating the source of its power through the creation of clones. Behavioral remedies were favored by those who worried that breaking up Microsoft's monopoly could lead to multiple industry standards that would impede the development of software applications. Many commentators and industry members, however, were skeptical that behavioral remedies would be sufficient to curb Microsoft's alleged monopoly power and abusive practices.

Most behavioral remedies under discussion focused on breaking Microsoft's hold on PC manufacturers obtained through licensing agreements for Windows operating system. A number of PC manufacturers had sought more flexible licensing agreements, and under antitrust scrutiny Microsoft had recently granted some leeway. Such remedies could include prohibiting Microsoft from using exclusive contracts that prohibit PC manufacturers from offering other Internet browsers. Another behavioral remedy would be to require Microsoft to publish its "most-favored customer" prices and make those prices available to all PC manufacturers. This would reduce the likelihood that Microsoft could punish a PC manufacturer by not offering it a discount available to other PC manufacturers. Microsoft was said to "take $7.50 off the unit price of Windows if PC makers agree to carry a 'Windows' logo on their machines and submit to certification by Microsoft's labs."[11] More generally the court could impose a pricing "transparency" policy under which Microsoft would set fixed prices for its products. A third behavioral remedy would be to require Microsoft to publish the applications program interfaces, or software hooks, required to write software for the Windows operating system. This would address the alleged strategy of releasing that information in stages or selectively to favored software developers.

Opposition to behavioral remedies not only resulted from skepticism about the effectiveness of such

[11]*The Wall Street Journal*, March 1, 1999.

remedies but also because such remedies would require supervision or regulatory oversight of the industry. Most industry members and economists feared any supervision or oversight of a dynamic industry with rapid product development and obsolescence.

In February 1999 the 1,400 member Information Industry Association (IIA), of which Microsoft was a member, presented a report to the DOJ urging that any remedy imposed on Microsoft not "fracture" the Windows de facto industry standard. The report assessed which possible remedies were workable and evaluated 10 possible remedies, ranging from prohibiting tying to structural remedies including breaking up Microsoft. The report was wary of any remedy that would require government supervision or oversight of the industry. The report urged the DOJ to "seriously consider" structural remedies.[12] The structural remedy preferred by the IIA was to break Microsoft into three stand-alone companies. One would have the Windows operating system including the CE and NT systems.[13] Another would have Microsoft's software business, and the third would have its Internet and electronic commerce businesses.[14]

An alternative structural remedy was to break Microsoft into three to five clones, referred to as "Baby Bills," each of which would have Microsoft's source codes for Windows and its other products. A related proposal was to auction the Windows code and name to several companies. Companies such as Sun Microsystems, Hewlett Packard, and IBM might be expected to bid for the codes. These remedies would introduce competition and break the alleged monopoly power of Microsoft. The IIA report, however, concluded that this type of remedy could be harmful if it led to multiple standards.

[12]The initial draft reportedly recommended structural remedies, but lobbying by Microsoft led to the wording "seriously consider."
[13]See Chapter 2.
[14]Others suggested a breakup with the second and third companies combined into one.

RECESS AND SETTLEMENT NEGOTIATIONS

At the conclusion of direct testimony and cross-examination, Judge Jackson announced a six-week recess after which rebuttal testimony would be offered and closing arguments made. The judge also suggested to the attorneys for the two sides that they consider negotiating a settlement.

For Microsoft a settlement would eliminate the considerable uncertainty about what judgment would be rendered in the case. That uncertainty was likely to continue through the potentially lengthy appeals that were anticipated. A settlement would also avoid any further embarrassments in the remainder of the proceedings.

For the Department of Justice and the 19 state attorneys general a settlement had the advantage of being implemented immediately rather than at the end of the appeals process. In the rapidly changing software and Internet markets a substantial delay could mean that the final judgment would be largely irrelevant. In addition, not settling the case would mean that the DOJ prosecutors would long be out of office, and many of the state attorneys general would have lost an opportunity for credit claiming in their quests for higher office. ■

Add Safeway - Laws eg.

This case was written by Professor David P. Baron and Chen Lichtenstein from publicly available information from the following sources: court filings made by the U.S. Department of Justice and by the Microsoft Corporation, transcripts of testimonies and related materials posted on the Department of Justice and Microsoft Corporation's Web sites, and court reports. Due to a publication deadline this case was written prior to rebuttal testimony and closing arguments. Copyright © 1998 by the Board of Trustees of the Leland Stanford Junior University. All rights reserved. Reproduced with permission.

PREPARATION QUESTIONS

1. Should the DOJ have brought an antitrust case against Microsoft?
2. Does the evidence indicate that Microsoft violated the Sherman Act?
3. Should Microsoft change its trial strategy to emphasize new arguments?
4. If Judge Jackson were to find against Microsoft, what remedy should the DOJ recommend?
5. Should Microsoft adopt a nonmarket strategy outside the court to influence the choice of a remedy? If so, what should the strategy be and how should it be implemented?
6. Should Microsoft attempt to settle the case out of court? On what terms?

CHAPTER 10

Regulation: Law, Economics, and Politics

Introduction

Regulation is government intervention in economic activity using commands, controls, and incentives. Regulation takes place through a public process that is open and allows participation by interested parties. In contrast to antitrust, regulation is not implemented through judicial institutions but instead by independent commissions and agencies of the executive branch. The courts, however, have played an important role in interpreting regulatory statutes, determining their constitutionality, and ensuring that regulatory decisions satisfy due process requirements.

Regulatory decisions and rule-making proceedings are extremely important to many firms, industries, and interest groups. Kerwin (1994, p. 194) reports a survey of 180 interest groups that found that two-thirds of the groups saw participation in regulatory rule making as at least as important as lobbying Congress and conducting grassroots activists. Nearly two-thirds of the respondents ranked participation in rule making as more important than either campaign contributions or litigation in their nonmarket activities.

Regulation includes a broad set of interventions:

- Controlling prices (electric power, telecommunications, cable television)
- Setting price floors (crops, minimum wages)
- Specifying qualifications (occupational licensure)
- Providing for solvency (financial institutions and insurance)
- Controlling the number of market participants (broadcast licenses and taxi medallions)
- Requiring premarketing approval (toxic chemicals, pharmaceuticals)
- Ensuring product safety (pharmaceuticals, toys, food)
- Mandating product characteristics and technology (automobile safety standards)
- Establishing performance standards (automobile emissions standards)
- Controlling toxic emissions and other pollutants (sulfur dioxide control)
- Allocating public resources (radio spectrum allocations)
- Establishing standards for health and safety (occupational safety)
- Ensuring equal opportunity (banning discrimination in employment)
- Controlling unfair international trade practices (antidumping)