LEGAL ASPECTS OF MANAGING TECHNOLOGY
4th Edition

Antitrust and Anticompetitive Conduct
Lee Burgunder

INTRODUCTION

When high-technology firms enter contractual or other business arrangements, they need to assess the effects that those deals might have on competition and whether those consequences will be acceptable to the public and to key policy makers. Antitrust, we will find, is somewhat nebulous topic, but one that can be enormously important, especially when powerful firms take steps to expand their control over breakthrough technologies. The public scrutiny that Microsoft has faced during the last decade, culminating with the landmark antitrust litigation against it, clearly proves the point. This chapter therefore devotes substantial attention to the Microsoft situation, since it so clearly demonstrates how important it is for technology companies to pay close attention to the reactions of key government players whenever their conduct arouses public concerns.

This chapter begins by presenting a little background on the notion of antitrust so that you can get a feel for the different attitudes that often divide the public and government officials. Next, the chapter explains some of the basic analytical approaches used with antitrust. In this regard, attention is focused somewhat on monopolization and tying arrangements, since these formed the backbone of the complaints against Microsoft. The following section then explains why the federal and state governments pursued the antitrust case against Microsoft and indicates how the proceedings unfolded. After looking at Microsoft, the chapter then reviews some international issues, particularly regarding antitrust in the European Union (EU). The chapter concludes by evaluating some of the special concerns created by intellectual property within the world of antitrust. As you can imagine, government policies that provide firms with exclusive power to control assets often clash with government efforts to constrain such power.

OVERVIEW OF ANTITRUST

Antitrust policy in the United States has its roots in the Industrial Revolution. The time was marked by a substantial shift in economic and political power from the once-dominant farming community to the emerging industrialists. There also was a notable change in the way economic power was controlled. Whereas before the Industrial Revolution, economic wealth was diffused over a multitude of small business owners and entrepreneurs, the era brought with it new breeds of empires that sometimes controlled substantial economic assets and power. The result was a populist reaction around the turn of the 20th century. It was during this tumultuous period that antitrust policies were born.

The fundamental antitrust statutes are the Sherman Act, the Clayton Act, and the FTC Act. The Sherman Act, which serves as the cornerstone of antitrust policy, prohibits contracts, combinations, and conspiracies in restraint of trade. In addition, it states that monopolizing is unlawful. The Clayton Act deals with a number of practices such as price discrimination. However, its major thrust is its merger clause prohibiting mergers that may substantially lessen competition. The FTC Act empowers the Federal Trade Commission (FTC) to prohibit unfair methods of competition.

A notable similarity between these statutes is how vague they are in describing unlawful conduct. What does it mean to restrain trade? What kind of conduct constitutes monopolizing? Under what circumstances will a merger have the possible effect of lessening competition? What kinds of business methods are unfair? One frightening aspect of antitrust is that there is no clear guidance about the meanings of these terms, leaving businesses constantly exposed to the vagaries of the policy makers in charge of interpreting them.
PHILOSOPHICAL JUSTIFICATIONS FOR ANTITRUST

Those responsible for giving meaning to the vague terms of antitrust generally search the historical origins of the policy to determine the philosophical constructs from which it evolved. Unfortunately, such historical analyses have led to two substantially different notions of what antitrust is designed to achieve. One school of thought attaches a populist philosophy to antitrust. According to this approach, antitrust arose to protect small farms and businesses from the powerful industrial enterprises. Antitrust was conceived to ensure a vital system of small producers and sellers, thereby ensuring that American entrepreneurial ingenuity would continue to thrive through the incentives of universal opportunity.

Following this line of reasoning, antitrust is based on a generalized distrust of big business. Although one legitimately might make arguments that big business can be more efficient in the production and distribution of goods and services, that notion is viewed with skepticism, especially when taking a long-term perspective. Those advocating the importance of small business to society believe that any economic benefits that might conceivably be achieved through size ultimately will be enjoyed by the large-business powerhouses to the detriment of consumers and society. The small-business supporters therefore are inclined to use antitrust to attack the formation and growth of big business, even when faced with convincing arguments that greater size might yield lower costs. From all of this, one should not be surprised that those entertaining a small-business philosophy on antitrust usually support an active program of antitrust enforcement.1

One can review the history of antitrust and reach an entirely different construct about the purposes of antitrust. One of the concerns of the Industrial Revolution was the rise of true economic monopolies that faced little if any competition in their industries and that had the means to deter any firm that might consider entering the field. Economists consider monopolies to be inefficient not only because they transfer wealth from consumers but also because they impose an unrecoverable cost on society through the income redistribution process. Thus, it makes sense for the government to interfere with the free market when the unfettered market otherwise would result in monopoly power. Here, monopoly power does not mean that the business is big. Rather, it is related to the capability of the business to dominate firms that try to compete with it.

Following this line of reasoning, the other philosophical approach to antitrust is founded on the principle of maintaining economic efficiency. Those supporting this view of antitrust policy believe that enforcement is proper only when the free market, left to its own devices, would not render an efficient outcome. However, this scenario is considered the exception rather than the rule. Decisions and arrangements normally made by business firms through the natural forces of the competitive process are viewed as serving the public interest by increasing economic efficiency. The strategies adopted by firms are to do better than their rivals, ultimately leading to lower prices or better products for consumers. If the process leads to more powerful firms, then it likely is because their added scope enhances certain economic efficiencies that allow those businesses to be more formidable competitors. Big business, therefore, is not seen as something that is necessarily bad. In fact, it may be viewed positively, as long as there are market forces in place to ensure competitive practices, such as with pricing. Therefore, those advocating the efficiency objectives to antitrust, based on these observations, normally call for a hands-off or passive approach to antitrust enforcement, under the assumption that the free market normally will result in the most efficient outcome.2

The net result is that an inherent schizophrenia surfaces regarding the application of antitrust in the United States. Interestingly, the term antitrust does suggest a unifying theme, although not the one originally intended, if one interprets it from the perspective of reliance. Thus, one might look at the definition of antitrust in terms of the following equation:

\[
\text{Antitrust} = \text{Don’t Trust}
\]

What separates the two groups harboring the divergent philosophies is who they don’t trust. Those taking a populist approach to antitrust clearly don’t trust business participants or economic markets to take care of their interests and so they look to the government to protect them. However, on the other side of the coin are individuals who don’t trust the government when it interferes with the operation of economic markets. They see antitrust as a means for failing businesses to survive—by convincing government actors through

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1 One example is the American Antitrust Institute (http://www.antitrustinstitute.org).
2 Examples of groups advocating this approach are the America Enterprise Institute (http://www.aei.org) and the Cato Institute (http://www.cato.org).
the political process to control more successful competitors. In their eyes, society would reap benefits if the government would just keep its hands off and allow the markets to work efficiently. As we shall see, the controversies regarding Microsoft essentially stemmed from this fundamental debate about trust.

**ANTITRUST POLICY MAKERS AND REMEDIES**

Antitrust policy initially derives from Congress through statutes. However, as already noted, Congress has been somewhat vague in articulating antitrust standards. On occasion Congress has been more forceful, providing greater clarity for certain specific areas of antitrust concern. For example, in 1984, Congress reduced the antitrust exposure for companies engaging in joint research and development projects when it passed the National Cooperative Research Act. This move stimulated a number of joint research efforts for a lightweight material that could someday substitute for steel. In addition, they received a joint patent for the process in 1993. Nonetheless, for most arrangements, congressional statutes remain vague about the potential applicability of antitrust. Under circumstances such as these, policy making shifts from Congress to administrative agencies, the president, and the courts.

The Antitrust Division of the Justice Department and the Federal Trade Commission are charged with enforcing the antitrust laws for the public. The Antitrust Division is within a cabinet agency, so its head serves at the pleasure of the president. The FTC is an independent agency that is led by five commissioners who serve five-year terms. As you can imagine, the degree of scrutiny these agencies give to various business practices is a function of the philosophies held by their top administrators. In the 1960s, for instance, these agencies were ruled by the small-business philosophy, thereby leading to somewhat aggressive enforcement practices. However, in the 1980s, both agencies were much more passive, due in large part to philosophical shifts that at that time supported the efficiency approach. Since the top administrators are appointed by the president, one can quickly see how the president can influence antitrust policy. The marked change in enforcement activity, for instance, can be ascribed somewhat to the different philosophical approaches held by the Democratic administrations in the 1960s compared to that of President Reagan in the 1980s.

In the 1990s, the antitrust agencies became slightly more aggressive. This may be explained somewhat by changes in the economic environment. As a result of the numerous mergers and acquisitions in the previous decade, many industries had become highly consolidated, raising the likelihood that firms might be able to exercise market power. Coupled with this were rapid changes in the international and technological environments, which also created new challenges for antitrust enforcement. President Clinton, too, played an important role through his agency appointees, who were less inclined than their Republican predecessors to address antitrust concerns by relying on unfettered markets. With the election of George Bush in 2000, some observers predicted that enforcement by the federal agencies would once again diminish. In fact, as we shall see, the change of administrations during the Microsoft litigation ultimately may have allowed Microsoft to settle for a more favorable remedy than would have been possible had the Democrats retained control of the White House. Nevertheless, since that time, the federal antitrust agencies under President Bush maintained almost the same level of enforcement as experienced under President Clinton.

When the administrative agencies bring enforcement actions, the cases either are initially heard in the federal courts or may ultimately be reviewed by them. In addition, private parties may bring antitrust actions in the federal courts when they believe they have been damaged by violations of the antitrust laws. When such cases are brought, the federal courts must interpret the vague language of the statutes to answer the questions at hand. For example, if an antitrust case is brought against a retailer because it fixed prices with a supplier, then the court must determine if this practice is the type of restraint that Congress intended to be unlawful under the Sherman Act. As with administrative agencies, the decision of the court likely will be influenced by the antitrust philosophies held by the presiding judges. Looking at the 1960s and the

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3 The website for the Antitrust Division is http://www.usdoj.gov/atr.
4 The website for the Federal Trade Commission is http://www.ftc.gov. To find substantial information about its role in antitrust enforcement, click on Antitrust & Competition.
5 As one example, conservative economists criticized the Antitrust Division for seeking to block Oracle’s acquisition of PeopleSoft in 2004. A federal judge overturned the agency’s action and allowed the merger to proceed.
1980s, we see a marked difference in the approaches taken by courts. Whereas in the 1960s the courts exhibited substantial concerns for the viability of small businesses, in the 1980s they primarily focused on economic efficiency. This change again can be ascribed somewhat to the influence of the president, who is responsible for nominating federal judges when vacancies occur.

When the federal antitrust agencies prove that firms have violated the antitrust laws, they may seek a variety of civil remedies. The most typical remedy is an injunction—a court order preventing the continuation of specified conduct. Sometimes courts will order firms to actively engage in new behavior, such as sharing information. This is called an order of specific performance. The federal agencies also may be entitled to recover monetary compensation when the unlawful conduct harms the U.S. government. Perhaps the most feared civil remedy is a divestiture order, requiring the company to divide its assets and relinquish some of them. Clearly, this remedy is somewhat extreme, and it is typically used to force companies to sell assets that they only recently acquired through mergers or other combinations.

In addition to these civil remedies, the Antitrust Division may bring criminal charges against companies that have the requisite intent to violate the antitrust laws. Antitrust convictions are felonies that carry the potential for prison sentences and large fines. However, criminal charges are not often raised and are usually reserved for the most egregious violations, such as price fixing and bid-rigging between competitors.6

Besides the FTC and the Antitrust Division, each of the state governments may sue under the federal antitrust laws, alleging that unlawful conduct harmed government interests or citizens within the state. 7 These cases are brought by the state attorneys general. Also, private citizens are entitled to sue under the federal antitrust acts for damages incurred because of antitrust violations. When private parties are successful, they are entitled to so-called treble damages—that is, three times their proven monetary damages—as well as reasonable attorneys’ fees and costs. Thus, those individuals who win antitrust suits not only can receive compensation for all their costs and losses, but they also are entitled to an enormous windfall. This bonus is designed to help private parties muster the nerve to overcome the enormous costs and financial risks of bringing antitrust litigation. In addition, it serves as a massive deterrent to firms contemplating conduct that may violate the antitrust policies.

When the federal agencies bring an antitrust action, the defendant has an interesting strategic decision to make. Usually, antitrust cases are very long and enormously expensive for both sides of the litigation. Often, the enforcement agencies seek an injunction, preventing the continuation of certain conduct. Sure, the company may not want to stop the practice, but given the expense of an antitrust trial, it just may not be worth fighting for. However, a more important factor is an additional, and potentially devastating, consequence of losing the case. According to the antitrust laws, when the federal agencies prove an antitrust violation, private parties then can introduce that ruling as prima facie evidence in their cases. What that means is that private citizens who may have suffered financial losses due to the company’s conduct may avoid what is typically the most risky and expensive portion of their trials—proving that the conduct actually violated the law. Rather, due to the government action, they can skip this part and go right to arguing about how much money they lost. Whatever amount they prove, they are then entitled to the treble damage windfall. You can imagine how such a prospect might whet the appetites of class-action lawyers.

For this reason, when the federal agencies charge companies with antitrust violations, the companies often seek to settle the actions to avoid the possibility of an adverse ruling from the judge. These settlements are called consent decrees. The key aspect of the consent decree is that the company promises to do what the government wants, but without admitting that it violated the law. The agreement thus is a tool of administrative expediency, allowing the government to get the remedy it wants without the expense of conducting a trial.8 The company benefits as well, since it too saves the expenses of fighting in court. In addition, by settling, the company substantially reduces that likelihood that private individuals subsequently will bring successful treble damage antitrust cases against it. This is one of the reasons that most government antitrust cases ultimately are resolved by consent decrees. It also explains why many

6 In one relevant recent example, Samsung pled guilty in 2005 to Justice Department charges that it conspired to fix prices for dynamic random-access memory (DRAM) chips with several competitors, including Hynix and Infineon. Samsung agreed to pay a fine of $300 million, and later, in 2006, three of its executives pled guilty to criminal charges, requiring them to pay fines and serve prison sentences in the United States. In 2004, Infineon paid a fine of $160 million, and four of its executives were hit with fines and prison sentences. In 2005, Hynix settled the charges against it by agreeing to pay a $185 million fine.

7 State governments also have enacted their own antitrust laws, which often are very similar to the federal statutes.

8 Consent decrees must be approved by a court to ensure that they are in the public interest.
observers believed that Microsoft took a huge risk when it chose to fight the government’s charges against it, rather than opting to settle. Exhibit 1 outlines the major sources of antitrust enforcement in the United States.

<table>
<thead>
<tr>
<th>EXHIBIT 1</th>
<th>Antitrust Enforcement in the United States</th>
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<tr>
<td><strong>Federal Antitrust Statutes</strong></td>
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<tr>
<td>• Sherman Act</td>
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<td>• Clayton Act</td>
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<td>• FTC Act</td>
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<td><strong>State Antitrust Statutes</strong></td>
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<td><strong>Antitrust Enforcement Entities</strong></td>
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<td>• Department of Justice, Antitrust Division</td>
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<td>• Federal Trade Commission</td>
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<td>• State attorneys general</td>
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<td><strong>Enforcement Remedies</strong></td>
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<td>• Civil Remedies</td>
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<td>➢ Injunctions</td>
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<td>➢ Specific performance</td>
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<td>➢ Divestiture</td>
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<td>➢ Damages</td>
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<td>• Criminal Remedies</td>
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<td>➢ Prison terms</td>
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<td>➢ Fines</td>
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<tr>
<td>• Consent Decrees</td>
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<tr>
<td>➢ No admission of antitrust violation</td>
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<tr>
<td>➢ Reduces risks of private lawsuits</td>
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<tr>
<td><strong>Private Lawsuits</strong></td>
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<tr>
<td>• Treble damages</td>
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<tr>
<td>• Attorneys’ fees and costs</td>
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</tbody>
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**APPLICATION OF THE ANTITRUST LAWS**

**THE RULE OF REASON**

Section 1 of the Sherman Act prohibits contracts, combinations, and conspiracies that unreasonably restrain trade. The ambit of this provision is so broad that firms must evaluate any contemplated business transaction with other companies in terms of its reasonableness. What makes an arrangement reasonable, therefore, is the key question for the Sherman Act, Section 1. When cases are brought to the federal courts, judges use what is termed the *rule of reason* to make this analysis. The rule of reason can be likened to a scale, illustrated in Exhibit 2, balancing how the arrangement might harm competition against the possible ways it could benefit competition. If the likely harms to competition outweigh the benefits, then the transaction is unreasonable and unlawful; if the benefits outweigh the harms, then it is reasonable and lawful.

For example, a common distribution practice is for manufacturers to provide retailers the exclusive rights to sell in particular regions. This is sometimes called a *vertical nonprice agreement*. Such an arrangement may harm consumers because they will not be able to comparison shop for the manufacturer’s goods at different retail outlets in the area. On the other hand, the exclusive privilege might encourage the retailer to more aggressively push the manufacturer’s brand, since the retailer knows that customers, once

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9 The restriction is vertical because the arrangement is between firms on different levels of the distribution chain. An agreement between competitors is horizontal. The restriction also is nonprice because it does not directly involve the prices to be charged.
persuaded, have no choice but to buy the brand from it. Other manufacturers may be forced to match the increased promotion with vigorous competitive responses, such as lower prices or enhanced services, thereby benefiting consumers. Whether the arrangement is reasonable depends on the particular facts and the relative weights given to each possibility by the courts. *Eastman Kodak v. Image Technical Services*, presented later in the chapter, also illustrates how arrangements conceivably may have both positive and negative effects on competition.

**EXHIBIT 2**
Rule of Reason

<table>
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<tr>
<th>Possible Harms to “Competition”</th>
<th>Possible Benefits to “Competition”</th>
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<tr>
<td>Philosophy</td>
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<tr>
<td>• Efficiency</td>
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<tr>
<td>• Small Business</td>
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</table>

The rule of reason raises significant ambiguity for businesses. One never knows which arguments, information, or expert testimony ultimately will persuade the court. In addition, as mentioned earlier, “competition” may be defined in different ways by different judges. Some may evaluate the transaction by considering the effects on economic efficiency. Other judges may be more concerned with how the transaction might impact the ability of small businesses to survive.

**PER SE ILLEGALITY**

The courts have developed one shortcut that adds more certainty to their judgment about a few kinds of transactions. Those sitting on the courts have concluded that some arrangements are potentially so harmful that no alleged benefits could ever outweigh their dangers in a rule of reason analysis. Rather than waste everyone’s time by reviewing evidence regarding the reasonableness of such deals, the courts skip the weighing analysis and jump directly to the conclusion that they are unlawful. In other words, to be successful, all the plaintiff must do is prove that the defendant engaged in one of these arrangements. This is substantially easier and more predictable than in the typical rule of reason scenario wherein the plaintiff must prove not only the existence of the transaction but also that it is unreasonable on balance. Since unreasonableness is assumed, these transactions are called illegal per se (literally, illegal in and of itself).

As you might imagine, those advocating the small-business approach to antitrust are more inclined to support illegal per se determinations than are those who favor efficiency. This is because they are more suspicious of business arrangements that might increase the competitive power of firms in the marketplace. For this reason, numerous arrangements were judged illegal per se in the 1960s when small-business proponents dominated the courts. However, by the 1980s, the efficiency-minded judges then in place were more inclined to fully review the economic effects of particular transactions rather than perfunctorily deem them illegal. Thus, the list of illegal per se offenses began to shrink. For instance, the Supreme Court ruled in 1966 that vertical nonprice restrictions should be treated as illegal per se offenses. However, the Court changed its mind in 1977, ruling that these important arrangements should be fully evaluated under the rule of reason.10 Similarly, in 1997, the Supreme Court ruled that vertical maximum price agreements, which previously were illegal per se, should be appraised under the rule of reason.11

For some other practices, the courts have maintained the illegal per se status, but have narrowed the circumstances under which the arrangements are deemed automatically unlawful.12 For our purposes, the

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12 Vertical price fixing is illegal per se, but the Supreme Court has substantially narrowed the types of agreements that constitute price fixing. *Business Electronics Corp. v. Sharp Electronics Corp.*, 485 U.S. 717 (1988).
most important of these are **tying arrangements**. These are situations in which a firm combines the sale of two different products so that a customer who wants one of the products has no choice but to purchase the other as well. For instance, if a fishing rod manufacturer—let’s say Fenwick—only sold its rod with a reel already attached, this would be a form of tying arrangement. This might make life more difficult for independent reel manufacturers since they will have a harder time selling their reels to consumers who like Fenwick rods. In the past, tying arrangements were considered **illegal per se** under all circumstances. However, in 1984, the Supreme recognized that tying arrangements may contribute to economic efficiency under some circumstances, and that the broad **illegal per se** condemnation might therefore be harming consumers. For instance, Fenwick might be able to increase the effectiveness of its fishing systems by precisely matching reels with its rods. Or, it might be able to improve the efficiency of its manufacturing operations by coupling the components. The question then is whether the potential harms from tying arrangements always overwhelm the possible benefits, thereby justifying the **illegal per se** designation.

If Fenwick competes with several other reputable rod manufacturers, then perhaps the tie will not harm the independent reel company very much since it only must convince fisherman who desire its reels to buy other brands of rods. On the other hand, suppose that Fenwick develops the most effective rod ever created. The rod always catches fish, and just about every fisherman covets it. Under these circumstances, the independent reel company may have extreme difficulty selling its reels, even if they are superior to Fenwick’s reels, because rod purchasers will do anything to get the Fenwick rod, including putting up with its inferior reel. In this event, the tying arrangement is very likely to harm consumers, whereas in the former case, the negative consequences are far less certain. Based on this kind of analysis, the Supreme Court decided that tying arrangements should only be **illegal per se** when the following two conditions are met:

1. The seller ties two separate products (here, rods and reels); and
2. The seller has market power in the tying product (here, the rods).

According to the Supreme Court, the products are separate if they are sold independently in separate markets. This will be explained further in *Kodak*. We will look closely at market power in the next section on monopolizing, but generally it refers to the ability of a company to force buyer behavior. One of the issues in the Microsoft case was whether Microsoft engaged in **illegal per se** tying by selling the Windows operating system with the Internet Explorer browser. If so, then Microsoft unquestionably broke the law. However, if not, always remember that the arrangement might still be unlawful, but only because, on balance, the harms outweigh the benefits under the circumstances based on the rule of reason.

### Monopolizing

Section 2 of the Sherman Act prohibits monopolizing and attempts to monopolize. **Monopolizing** is another one of those vague terms that means different things to different people. Clearly, by reference to the word *monopoly*, monopolizing requires some ability to dominate or control economic markets. In other words, most observers agree that a firm must have **market power** in order to engage in monopolizing.

In very simple terms, a firm that enjoys market power is able to do things that upset consumers because the consumers have few if any other potential sources to acquire what they want. For instance, assume that there is only one oil field in the world, and it sits entirely under Mo’s land. By virtue of his control of the oil, Mo has substantial economic power. For example, Mo has little to fear if he raises the price of oil: There are no competitors that might sell oil at lower prices, and there is no prospect that anyone will be able to find oil in the future and later compete. Those who own cars can do little but swallow the extra costs, since they usually will not accept alternative means of transportation. Even new car buyers won’t have realistic options in the foreseeable future, at least until solar power or other technologies become reasonably affordable. Mo also can use his power to achieve other objectives besides raising prices. For instance, Mo might refuse to sell oil to retail gasoline stations unless they promise to buy oil pumps from him. Although other manufacturers may sell better pumps at lower prices, the gasoline stations would have little choice but to reluctantly buy their pumps from Mo. Clearly, there are substantial reasons to be worried about Mo.

As another example suppose that Tom runs a turkey farm. If Tom decides to raise the price of his turkeys, consumers have other options besides paying the higher prices. For instance, they simply could

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buy their turkeys from the many other turkey farmers that compete with Tom. Thus, Tom does not have market power because he does not control a sufficient share of the turkey market. Even if Tom had the only turkey farm in the world, he still would have a hard time raising prices appreciably because consumers often find chicken to be an acceptable alternative to turkey. Thus, when considering Tom’s share and control of the relevant market, one really needs to include the number of chicken farmers as well, for they directly compete with Tom to satisfy the appetites of consumers. Even if Tom had the only turkey farm in the world, and if turkey were a unique food in the eyes of consumers, Tom still could not exercise market power. As soon as Tom increased prices and demonstrated the profitability of turkey farming, a stampede of individuals would start to raise turkeys on their land, and then compete with Tom in the market. Unlike the example with oil, it is relatively easy and inexpensive for individuals to get into the turkey business if they want to enter the industry. Thus, Tom does not really have the power to control the market for a meaningful length of time because of the potential for new entrants. Therefore, in sum, firms only enjoy market power if they control a significant percentage of the relevant market (which includes close substitutes for the product) and there are substantial barriers to entry.

In the 1940s and 1950s, a company seemingly could run afoul of Section 2 simply because it had attained market power. This approach stemmed somewhat from the general distrust of markets and market participants that prevailed at that time. Thus, the basic notion was to deal with Mo now, even if Mo had yet to do anything objectionable with his market power, because Mo cannot be trusted and the markets won’t keep him in check. However, as antitrust policy makers focused more on efficiency considerations, they rejected the notion that the attainment of market power alone should be condemned. After all, one could achieve market dominance due to the implementation of the most cost-effective business practices. Such conduct should be rewarded, not outlawed. Also, it would not make sense to prevent large companies from implementing new and more efficient business practices, even if they ended up hurting competitors. On the other hand, dominant firms have the ability to harm competition because market participants are so dependent on them. Thus, modern antitrust analysis evaluates the conduct of powerful firms to appraise whether they have engaged in monopolizing. If a company’s actions are designed to improve economic efficiency, then they are lawful; if they make sense only in terms of destroying competitors, however, then they violate the antitrust laws.

The following example provides a simple illustration. The Lorain Journal once was the only major media outlet in the city of Lorain, Ohio, and was read by 99% of local families. At the time, area businesses that wanted to advertise had no choice but to place their ads with the Lorain Journal. A radio station then received a license to operate from a site close enough to Lorain to cover listeners in the area. Since radio programming is broadcast for free, radio stations make their money through the advertisements they air. A number of Lorain businesses indicated that they wanted to advertise with the new station. However, the Lorain Journal implemented a new policy, wherein it refused to place ads from businesses that also advertised over the new radio station. As you can imagine, faced with the choice of a newspaper reaching virtually all local residents and a new radio station, almost all businesses chose the Lorain Journal and abandoned any plans to market via the radio station. The radio station obviously suffered greatly and was only saved due to an antitrust lawsuit brought by the government alleging that the Lorain Journal was engaged in unlawful monopolizing.15

Assuming that the Lorain Journal had market power, one must evaluate whether the newspaper used its power in an unlawful way—that is, to foreclose competition or destroy a competitor. In this situation, it is hard to imagine that the Lorain Journal had anything else in mind besides choking off the radio station. At a minimum, the Journal at least needed to proffer some reasonable explanation of how its new contract provisions might have enhanced economic efficiency and thereby benefited consumers. If it had done that, then the court would have been required to weigh those potential gains against the competitive harms. However, the Lorain Journal was not able to provide any valid business justifications for its arrangement in terms of economic efficiency—such as by lowering costs, improving quality, or widening customer choices. In fact, if you think about it, the newspaper actually was willing to give up money in the short term to implement this plan, since it refused payments offered by firms who also advertised over the radio station. You have to ask yourself why a profit-maximizing firm would do this. One explanation, of course, is that it intended to drive out its rivals to preserve its ability to keep its fees higher in the long term. Thus,

14 See U.S. v. Aluminum Company of America, 148 F.2d 416 (2d Cir. 1945).
if a dominant firm incurs costs or gives up money in the short term, it is incumbent on it to provide legitimate business justifications for those decisions. The Lorain Journal failed to do this. Thus, it was clear that the newspaper only intended to use its market power to dominate its rivals, and by doing so, it ran afoul of the Sherman Act for monopolizing.

The Lorain Journal case is a nice example because it is so simple and the anticompetitive intent is so clear. Keep the example in mind as you think about Microsoft, since some of Microsoft’s practices may have been little different in substance than what the Lorain Journal attempted to accomplish. You also will see parallels in Kodak, which follows next. Exhibit 3 summarizes the major elements involved with proving unlawful monopolization under Section 2 of the Sherman Act.

### EXHIBIT 3
Requirements for Monopolization

<table>
<thead>
<tr>
<th>Market Power</th>
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<tbody>
<tr>
<td>• High market share of competitive market</td>
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<tr>
<td>• Few direct competitors</td>
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<tr>
<td>• Few close substitutes</td>
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<tr>
<td>• Significant barriers to entry</td>
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<table>
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<tr>
<th>Anticompetitive Acts</th>
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<tbody>
<tr>
<td>• No legitimate business justifications</td>
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<tr>
<td>• Acts cannot be explained on efficiency grounds</td>
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<td>• Improve quality</td>
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<td>• Expand consumer choices</td>
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<td>• Short-term costs only make sense in terms of long-term monopoly returns</td>
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**SERVICE FOR HIGH-TECHNOLOGY PRODUCTS:**
**AN IMPORTANT EXAMPLE OF ANTITRUST ANALYSIS**

Eastman Kodak v. Image Technical Services deals with a critical subject for high-technology firms: the contractual provision, imposed by some manufacturers of high-technology equipment, that requires purchasers to have their products serviced by the manufacturers. In antitrust terms, this may be likened to a tying arrangement, since the customers have to obtain service from the manufacturer in order to get the equipment (or parts) that they desire. Thus, the equipment is the tying product and the service is tied to it.

The tying of service to hardware has become somewhat common in the computer industry. One can point to a number of reasons why such tying arrangements might be reasonable under certain circumstances. For instance, some customers prefer a turnkey solution to computer problems, which includes hardware, software, software updates, and maintenance. For some manufacturers, it may not be feasible to offer all of these features unless they are packaged together in some attractive way. Another important consideration is that vendors of computer software often have substantial trade secrets that they wish to protect in their products. Maintenance agreements ensure that the software developer does not have to relinquish source code to the customer or third-party maintenance firms so that problems can be corrected. Also, customers who experience substantial problems in the servicing of their computer products may attribute the problems to the products, when poor service may actually be the problem. Thus, service maintenance agreements can preserve a company’s goodwill and make it a more respected competitor with other firms. On the other hand, tying arrangements requiring service may have certain pernicious effects. For instance, the requirement may simply be a way for the manufacturer to force third-party service providers out of business so that the manufacturer can raise service prices and sustain a high-level stream of future income. Those adhering to the small-business philosophy to antitrust naturally would be especially sensitive to this possibility.

Kodak is a 1992 Supreme Court decision that evaluates several important antitrust dimensions raised by service maintenance agreements. This case discusses service contracts both as tying arrangements under
Section 1 of the Sherman Act and as a means for monopolizing under the Sherman Act, Section 2. Given the propensity of the Supreme Court in the early 1990s to favor the efficiency role of antitrust, there was some expectation that the court would side with the defendant, Kodak, in the proceeding. As you will see, however, there always are surprises lurking in the world of antitrust.

**EASTMAN KODAK COMPANY V. IMAGE TECHNICAL SERVICES, INC.**

**United States Supreme Court, 1992**

**FACTS:** Kodak manufactures and sells technologically complex, high-volume photocopiers and micrographics equipment. This equipment is serviced by Kodak and by independent service organizations (ISOs), such as Image Technical Services (ITS). Kodak manufactures some of the replacement parts for its machines; the rest are made for Kodak by independent original equipment manufacturers (OEMs).

Beginning in the early 1980s, ISOs began repairing and servicing Kodak equipment at substantially lower prices than Kodak. Some of the ISO customers purchased their own parts and hired ISOs only for service. Others chose ISOs to supply both service and parts. ISOs kept an inventory of parts, which were purchased either from Kodak or from other sources, primarily OEMs.

In 1985, Kodak implemented a policy of selling replacement parts for equipment only to buyers of Kodak equipment who used Kodak service or who repaired their own machines. Kodak also sought to limit ISO access to other sources of Kodak parts. Among other actions, Kodak entered new agreements with the OEMs, forbidding them from selling Kodak replacement parts to anyone but Kodak. Due to these actions, ISOs were unable to obtain parts from reliable sources, and many were forced out of business.

The ISOs sued, alleging that Kodak’s policies amounted to illegal per se tying and monopolization, as prohibited by Sections 1 and 2 of the Sherman Act. The district court granted summary judgment for Kodak. This means that even if all the facts alleged by the ISOs were true, the ISOs would not prevail after a trial. According to the district court, since Kodak did not have market power in the equipment market, it could not have market power for service or parts. Consequently, it could not have engaged in illegal per se tying or unlawful monopolization. The court of appeals reversed, and Kodak appealed to the Supreme Court.16

**DECISION AND REASONING:**

**Tying Arrangements.** The ISOs allege that Kodak unlawfully tied the sale of service of Kodak machines to the sale of parts. A tying arrangement is an agreement by a party to sell one product but only on the condition that the buyer also purchase a different (or tied) product or at least agree not to purchase that different product from any other supplier. Such an arrangement violates Section 1 of the Sherman Act if the seller has tied the sale of two products and has appreciable economic power in the tying product.

For service and parts to be considered two distinct products, there must be sufficient consumer demand so that it is efficient for a firm to provide service separately from parts. Evidence in the record indicates that service and parts have been sold separately in the past and still are sold separately to self-service equipment owners. Indeed, the development of the entire high-technology service industry is evidence of the efficiency of a separate market for service.

Kodak insists that because there is no demand for parts separate from service, there cannot be separate markets for service and parts. By that logic, we would be forced to conclude that there can never be separate markets, for example, for cameras and film, computers and software, or automobiles and tires. We have often found arrangements involving functionally linked products, at least one of which is useless without the other, to be prohibited tying devices.

Also, the ISOs have presented evidence that service was tied to parts. The record indicates that Kodak would sell parts to third parties only if they agreed not to buy service from ISOs.

Having found sufficient evidence of a tying arrangement, we now consider whether there was appreciable economic power in the tying market. Market power is the power to force purchasers to do something they would not do in a competitive market. It has been defined as the ability of a single seller to raise price and restrict output. The existence of such power ordinarily is inferred from the seller’s possession of a predominant share of the market.

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16 Since this case is about the propriety of granting summary judgment, the “facts” that are presented are only the allegations of the ISOs. If the ISOs persuade the Supreme Court that summary judgment is improper, then the case proceeds to trial both for determination of the actual facts and for proper resolution of the dispute based on those facts.
The ISOs allege that Kodak’s control over the parts market has excluded service competition, boosted service prices, and forced unwilling consumption of Kodak service. The ISOs have offered evidence that consumers have switched to Kodak service even though they preferred ISO service, that Kodak service was of higher price and lower quality than the preferred ISO service, and that ISOs were driven out of business by Kodak’s policies.

Kodak counters that even if it concedes monopoly share of the relevant parts market, it cannot actually exercise the necessary market power because competition exists in the equipment market. Kodak argues that it could not have the ability to raise prices of service and parts above the level that would be charged in a competitive market because any increase in profits from a higher price in the aftermarkets at least would be offset by a corresponding loss in profits from lower equipment sales as consumers began purchasing equipment with more attractive service costs.

The extent to which one market prevents exploitation of another market depends on the extent to which consumers will change their consumption of one product in response to a price change in another. Although competition in the equipment market may impose a restraint on prices in the aftermarkets, this by no means disproves the existence of power in those markets. There is no immutable law—no basic economic reality—that competition in the equipment market cannot coexist with market power in the aftermarkets.

Significant information and switching costs constitute one possible explanation of this potential coexistence. For the service market price to affect equipment demand, consumers must inform themselves of the total cost of the package—being equipment, service, and parts—at the time of purchase; that is, consumers must engage in accurate life-cycle pricing. Life-cycle pricing of complex, durable equipment is difficult and costly. In order to arrive at an accurate price, a consumer must acquire a substantial amount of raw data and undertake sophisticated analysis. The necessary information would include data on price, quality, and availability of products needed to operate, upgrade, or enhance the initial equipment, as well as service and repair costs, including estimates of breakdown frequency, nature of repairs, price of service and parts, length of downtime, and losses incurred from downtime.

Much of this kind of information is difficult—some of it impossible—to acquire at the time of purchase. Moreover, even if consumers were capable of acquiring and processing the complex body of information, they may choose not to do so. Acquiring the information is expensive. If the costs of service are small relative to the equipment price, or if consumers are more concerned about equipment capabilities than service costs, they may not find it cost efficient to compile the information.

A second factor undermining Kodak’s claim that supracompetitive prices in the service market lead to ruinous losses in equipment sales is the cost to current owners of switching to a different product. If the cost of switching is high, consumers who already have purchased the equipment, and are thus locked in, will tolerate some level of service-price increases before changing equipment brands. The ISOs have offered evidence that the heavy initial outlay for Kodak equipment, combined with the required support material that works only with Kodak equipment, makes switching costs very high for existing Kodak customers. We conclude, then, that the ISOs’ inference of market power may be reasonable. Kodak thus is not entitled to summary judgment on the tying claim.

**Monopolization.** The offense of monopolization under Section 2 of the Sherman Act 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.

The existence of the first element—possession of monopoly power—is easily resolved. As has been noted, the ISOs have presented the plausible claims that service and parts are separate markets and that Kodak has the power to control prices or exclude competition in service and parts. The ISOs’ evidence that Kodak controls nearly 100% of the parts market and 80% to 95% of the service market, with no readily available substitutes, is sufficient to survive summary judgment under the monopoly standard of Section 2.

The second element of a Section 2 claim is the use of monopoly power to foreclose competition, to gain a competitive advantage, or to destroy a competitor. Liability turns, then, on whether valid business reasons can explain Kodak’s actions. Kodak claims that it has three valid business justifications for its actions: (1) to promote competition against other equipment brands by allowing Kodak to stress the quality of its service; (2) to improve asset management by reducing Kodak’s inventory costs; and (3) to prevent ISOs from free riding on Kodak’s capital investment in equipment, parts, and service. Factual questions exist, however, about the validity and sufficiency of each claimed justification, making summary judgment inappropriate.

As to the quality of service, there is evidence that ISOs provide quality service that is preferred by some Kodak equipment owners. With respect to asset management, Kodak’s actions appear inconsistent with a need to control inventory costs. The justification fails to explain, for example, the ISOs’ evidence that Kodak forced OEMs, equipment owners, and parts brokers not
(continued)

The evils proscribed by the antitrust laws is the creation of entry barriers to potential competitors by requiring them to enter two markets simultaneously. The judgment of the court of appeals denying summary judgment is affirmed.

The Supreme Court’s decision favored the ISOs because it determined that Kodak may indeed have illegally tied service to its parts, and also may have monopolized the market for servicing Kodak machines. Regarding the tying claim, Kodak argued that it could not have tied parts to installation services because they were not separate “products” for antitrust analysis, but the Court disagreed. Kodak also claimed that it could not possibly have had market power in parts because it faced intense competition with selling the original machines, but again the Court rejected Kodak’s argument. The Court ruled that Kodak may have engaged in monopolization as well, finding it very possible that Kodak had monopoly power, and that it lacked legitimate business justifications for its practices. Since the Court refused to grant Kodak’s request for summary judgment, the case then went to trial. Not surprisingly, given the tenor of the Supreme Court’s opinion, the ISO’s ultimately prevailed, and were awarded treble damages and an injunction.

SOME FINAL COMMENTS ON THE APPLICATION OF THE ANTITRUST LAWS

Antitrust is a controversial and difficult topic. The preceding discussion really only scratched the surface in terms of its breadth and complexity. Although the text focused most of its attention on tying arrangements and monopolizing, always keep in mind that the antitrust laws potentially apply to any business arrangement or action that a firm might contemplate. Thus, if a business is thinking about adopting exclusive dealing contracts, or imposing restrictions on retailers, or making arrangements with competitors, or announcing price changes, or engaging in virtually any other practice, then it has to consider the applicability of antitrust doctrines.

Even a new company, such as CoolEdge, has to be careful, although in most situations, its actions will not raise serious antitrust concerns. For sure, CoolEdge must stay clear of engaging in any conduct that is still considered illegal per se. Thus, CoolEdge should not even consider entering price agreements with competitors, such as Nautilus or Cybex. Similarly, it should not make agreements with dealers about the minimum prices the dealers will charge to health clubs for CoolEdge machines. Since CoolEdge likely does not have market power in the relevant market for exercise equipment, it might be able to impose some tying conditions without violating the antitrust laws. For instance, suppose that CoolEdge requires health clubs to purchase CoolEdge free weight sets as a condition of obtaining Optimizer stair climbers. Since CoolEdge likely does not have market power, this restriction is not illegal per se. However, CoolEdge is not necessarily out of the woods since the tying arrangement still may be considered unreasonable under the fact-intensive rule of reason analysis. CoolEdge may also want to control service for the Optimizers to ensure that they work effectively, especially since a faulty machine might cause serious damage. Under the circumstances, restrictions on service probably will not be illegal per se, and likely would pass muster under the rule of reason.

Since most other kinds of business deals that CoolEdge might consider are appraised under the rule of reason, the company generally can relax due to its small size. As always, one must still exercise some caution—the company must be able to demonstrate some legitimate business rationale for what it wants to do so that, on balance, it can prove that its actions serve to improve competition. CoolEdge also does not have to worry about running afoul of the Sherman Act, Section 2, for monopolizing, at least not for the time being, because it lacks market power.

Firms that are considering combinations with other businesses also must make evaluations in terms of the Clayton Act, Section 7, as well as relevant state statutes. Federal merger and joint venture policy has

17 The jury determined that Kodak had violated the antitrust laws and rendered a verdict totaling close to $72 million after damages were trebled. The district court also imposed a 10-year injunction, requiring Kodak to sell parts to ISOs and end users on nondiscriminatory terms. The damage award and the injunction were modified on appeal. Image Technical Services, Inc. v. Eastman Kodak Co., 125 F.3d 1195 (9th Cir. 1996).
undergone substantial changes during the past 30 years. In the 1960s, mergers creating firms of just 5% market shares were attacked by the federal administrative agencies and found to be unlawful by the courts. Thus, even a company as small as CoolEdge might have run into problems if it had wanted to merge with a competitor. More recently, however, following the efficiency approach to antitrust, one finds that the federal enforcement agencies are much more permissive and that the courts are considerably more tolerant of mergers and joint ventures. This is especially true of mergers involving companies that handle different product lines.

The relatively permissive antitrust attitude that currently prevails could prove to be important to certain emerging high-technology industries, such as those using multimedia technologies, for those industries likely will depend on strategic relationships and mergers between existing corporate powerhouses. As stated before, only time will tell whether policy officials will continue to rely on the efficiency approach, or whether the pendulum will begin to swing back to the small-business philosophy. The only thing that is clear is that the course of antitrust will always be an important variable for firms doing business in high-technology fields in the United States.

THE ANTITRUST DEBATE ABOUT MICROSOFT

Microsoft Corporation is fundamentally a computer software development company, specializing in operating systems and applications software. During the 1980s and 1990s, Microsoft experienced phenomenal growth, becoming one of the largest and most profitable corporations in the world. Its owners and managers became multimillionaires, while the CEO, Bill Gates, became one of the richest individuals in the world. The public reaction to Microsoft’s “success” typifies the struggle inherent in antitrust. On the one hand, Microsoft is perhaps the premier example of the virtues of marketplace capitalism. The company has enjoyed prosperity because it is highly efficient and continually develops innovative and profitable products. Microsoft, however, also has attained such enormous size and economic power that it has become worrisome to an American population that culturally distrusts those who have the capability to wield excessive control. The very nature of the U.S. governmental structure is based on checks and balances to preserve individual liberties from unbounded governmental interference. The distrust is only greater when such power is held by private hands. As mentioned, antitrust arose during the Industrial Revolution, a time when the owners of large corporate empires were termed “robber barons.” The challenge for antitrust policy is to distinguish businesses that act in ways worthy of praise from those that deserve to be vilified. Obviously, this is not simply an economic exercise but a political one as well.

THE ISSUE OF MONOPOLY POWER

In the 1990s, Microsoft faced numerous private lawsuits brought both by competitors and consumers who claimed that they were harmed by Microsoft’s allegedly anticompetitive business practices. However, the government’s antitrust lawsuit filed in 1998 by the Justice Department and 20 state attorneys general clearly captured the public’s fascination. The government charged Microsoft with monopolizing, claiming that it employed anticompetitive practices to maintain its dominance in computer operating systems. The government also alleged that Microsoft engaged in illegal per se tying arrangements by forcing equipment manufacturers to take its browser along with the operating system. A prerequisite for both of these claims was establishing that Microsoft enjoyed market power in operating systems. Thus, the government had to demonstrate not only that Microsoft controlled a substantial share of the relevant competitive market, but that it also was protected from new competition by significant barriers to entry.

Through the 1990s Microsoft consistently held an exceedingly high market share of the personal computer operating system market. By most accounts, more than 90% of personal computers ran on Microsoft operating systems by the end of the decade. According to the government and other experts, this size translated into monopoly power due to the special nature of the market for operating systems, which

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19 The Federal Trade Commission and the Justice Department have published merger and joint venture guidelines, which indicate the approaches that the agencies use to evaluate various kinds of business combinations. These can be viewed by going to the Antitrust Division website at http://www.usdoj.gov/atr. Click on Public Documents, look under Policy Documents and Guidelines, and click on Merger Enforcement.
20 The Justice Department’s suit was consolidated with actions brought by state attorneys general from 20 states and the District of Columbia. Two states later withdrew from the lawsuit.
raised enormous barriers to entry. In this regard, the main contention rested on the notion that operating systems are subject to network effects. Network effects are present when a product’s value to one user is related to how many other people are using the product. A telephone provides a simple example. A person who owns the first phone really has nothing of value since no one else has a means to converse with him. However, that phone becomes much more valuable as others begin to buy and use phones. In fact, every phone user on the phone network benefits when new users enter the system. The benefits from the network make it hard for a company having an alternative means of communication to enter the market. Think how reluctant you would be to give up your telephone so that you could use a new system that reaches only a few people. Likely, the new company would have to convince you that its system could reach almost as many people as your old system before you would switch, even if the new system had certain advantages, such as greater clarity or ease of use. You can imagine, though, how hard this would be for the new company to do. Thus, network effects tend to protect old technologies from competition by superior new technologies.

The market for operating systems may indeed be subject to network effects. For one thing, one who uses Microsoft Windows as an operating system benefits when others adopt the same system. Just consider how much easier it is to use your computer at work if it has the same operating system that you use at home. Also, when you want to exchange files with friends or others, it is much easier if they also use the same system. Thus, users are reluctant to buy new computers having less pervasive operating systems for fear of how that might affect their relationships at work and with friends. Software is also a big player in the operating system network. One major reason that consumers select a particular operating system is because it can run the largest selection of applications software products. Applications programmers almost always develop their products for Windows, since it has such a large share of the market. However, they often shun alternative operating system platforms because the potential sales markets are too small to justify investments in alternative versions of the software. Thus, a vicious circle is created. Applications programmers develop software for Windows because there are so many potential computer users that may buy their titles, and computer users select Windows because there are so many applications program titles that are developed for the Windows operating system. Any new operating system that wants to compete with Windows, therefore, has to ensure that numerous software titles are available for use on the system. This is true even if the new system offers certain technical or other kinds of operating advantages over Windows.

Windows benefits from other barriers that make competition difficult in the operating system market. Due to network effects and the availability of software applications, a customer is reluctant to switch to another operating system. This hesitation may be compounded by other factors. For instance, a customer who has used Windows for a relatively long period likely will have accumulated a large number of software applications programs. If the customer were to switch to a new platform, all that software would have to be replaced. Also, there is a time factor involved with making a change. A Windows user not only would have to take the time to decide if it’s worth changing to a new system, but also would have to adapt to the new requirements of that system once the change was made. All of these effects tend to “lock in” customers to the operating system that they already use, which almost invariably is Windows. On top of all this, the research and development costs that are needed to design a new operating system are considerable. Based on all of these factors, the government was convinced that Microsoft not only had a large share of the market but had the ability to exercise monopoly power within it.

**THE POTENTIAL THREAT FROM INTERNET BROWSERS**

As noted before, one does not violate the Sherman Act simply by having market power. The offense requires that one “monopolize,” which now means that a company must use its market power to foreclose competition, gain a competitive advantage, or destroy a competitor. Government antitrust enforcers argued that Microsoft in the early 1990s perceived a potential threat to its operating system monopoly from Internet browsers—a threat that was sufficiently significant that it seemed likely to overcome the barriers to entry that had deterred so many other firms and technologies. Internet browsers can run in conjunction with any operating system. Their primary role is to act as an interface to the Internet, making it easy for Internet users to access information over the web. Browsers, however, also can serve as a platform for computers to run applications programs over the Internet. This means that a Windows machine with an Internet browser can run an application program designed for the browser and not for Windows. For this reason, browsers sometimes are categorized by the term middleware, since they serve between the
software and the operating system. Due to the browser, software developers no longer had to write programs strictly for Windows for them to run on Windows machines. Now they could be written for the browser instead. Since the browser also can be used with any other operating system, other operating systems, all of a sudden, might have a large stock of available software titles that could be used on them via the browser. In addition, browsers easily can overcome network effects that traditionally plagued operating systems, since they are universally purchased to access the Internet. Thus, Microsoft feared that Internet browsers would effectively commoditize traditional operating systems and would become the key interface to run applications programs instead.

Browsers also threatened Microsoft because they could be used to distribute a new universal programming system, called Java, which is designed to interface with several different operating systems. The beauty of Java is that applications programmers can make products that are compatible with Java and have them operate on multiple operating systems. This, again, diminishes the network effects traditionally enjoyed by Microsoft. In fact, with Java, one does not even need a traditional full-function computer to run applications programs. Thus, a person could use a browser in conjunction with a simplified network device to access the web and operate an applications program written in the Java programming language. In this way, computers someday may not even be necessary to do the tasks that computers traditionally have done. Obviously, these developments startled Microsoft, since it depended so heavily on computers using its operating systems.

The early market leader in the development of browsers was Netscape. In 1995, Netscape could claim more than 70% of the market with its Navigator browser. Microsoft responded to the threat by developing its own browser, called Internet Explorer. However, the government claimed that Microsoft was not content to have its Internet Explorer compete on its merits. Rather, Microsoft used its monopoly power in operating systems as leverage to take control of the browser market. According to the government, it did this through a series of anticompetitive practices that had no rational business justification besides the intent to destroy Netscape. As evidence of its success, the government noted that Internet Explorer’s share of the browser market rose from less than 5% in 1996 to more than 50% in 1998.

PRELIMINARY JUSTICE DEPARTMENT ANTITRUST PROCEEDINGS

Although the government filed suit in 1998 to address Microsoft’s actions regarding Netscape and other competing browsers, the antitrust saga actually began earlier. In 1994, the Justice Department sued Microsoft, alleging that the company had engaged in anticompetitive practices with original equipment manufacturers (OEMs) so that it could maintain its monopoly in its operating system. For instance, the department alleged that Microsoft offered deep discounts to OEMs that agreed to pay royalties to Microsoft for every computer they shipped, regardless of whether the computers were installed with Microsoft’s operating system or not (this was called a “per-processor” agreement). At the time, Microsoft’s operating system was MS-DOS, and the interface was Windows 3.11. The department claimed that the agreement prevented other operating system developers such as Novell, which had created DR-DOS, from selling their systems to OEMs because the OEMs would have to pay royalties to two companies—the operating system developer and Microsoft under the agreement—if the OEMs chose the alternative system.

Microsoft and the Justice Department settled the suit with a consent decree in 1995. Microsoft agreed to discontinue certain allegedly anticompetitive practices, such as the “per-processor” discount arrangement. The agreement also contained a clause stating essentially that Microsoft would not force other companies to enter tying arrangements. However, this was qualified by language stating that the provision “shall not be construed to prohibit Microsoft from developing integrated products” (emphasis added).

Microsoft began distributing Internet Explorer to OEMs in 1995 along with its operating system, which at that time was Windows 95. Microsoft required the OEMs that wanted to install Windows 95 on their machines to also install Internet Explorer. In 1997, the Justice Department filed a complaint asking the court to hold Microsoft in contempt for violating the 1995 agreement, which prohibited tying arrangements. The district judge concluded that Microsoft had not violated the 1995 agreement because Internet Explorer was “integrated” with Windows 95 under the terms of that agreement. However, the judge also determined that even though Internet Explorer might be “integrated” with Windows 95, it still might be a separate product under the antitrust laws. Thus, by bundling the two products together, Microsoft likely had violated the antitrust laws. For this reason, the district judge, on December 11, 1997, entered a preliminary injunction prohibiting Microsoft from licensing Windows 95 or any other operating
system on the condition that the licensee also preinstall any Microsoft Internet browser, including Internet Explorer. Microsoft then filed an appeal of the district court’s preliminary injunction order with the court of appeals for the District of Columbia.

On April 21, 1998, the court of appeals vacated the preliminary injunction. The major factor for this decision was procedural. The Justice Department asked the court to find Microsoft in contempt. The district court determined that Microsoft was not in contempt, but nonetheless issued the preliminary injunction. The court of appeals determined that Microsoft did not receive sufficient notice about the potential extent of the charges that the court might consider. In this regard, the appellate court ruled that the district court was wrong to appraise Microsoft’s actions under the antitrust laws when no request had been made for it to do so.

Possibly the most controversial aspect of the court’s opinion was its discussion of what it means for Internet Explorer to be integrated with the Windows operating system. The Justice Department argued that Internet Explorer was a product separate from the Windows operating system, and that Microsoft had simply licensed the desired operating system on the condition that the OEMs also include the browser. The court, however, stated that the products were integrated, since Microsoft had provided plausible evidence that the bundled version of Windows with Internet Explorer was superior to the combination of a separate operating system with a stand-alone browser. It thereby concluded that the version of Internet Explorer that was included with Windows 95 (and later with Windows 98) was different from the version that could be obtained alone. Although this discussion was really only about the meaning of the term integrated in the 1995 agreement, many observers believed that it sent a strong signal about what the court might rule if an antitrust case were brought based on a claim of unlawful tying. Since tying under the antitrust laws requires that there be two separate products, the Justice Department would have to prove that a bundled version of the browser and operating system is merely a packaged version of what is offered separately in the marketplace. If nothing else, the Court of Appeals showed some skepticism on this score.

THE 1998 ANTITRUST COMPLAINT AND TRIAL

The Government’s Allegations
On May 18, 1998, the Justice Department and the 20 state attorneys general commenced the landmark antitrust suit against Microsoft. Although one of the charges brought by the government was that Microsoft unlawfully tied the browser to the Windows operating system, the complaint was more far reaching, charging that Microsoft engaged in monopolizing by engaging in numerous anticompetitive practices, including tying. The government alleged that Microsoft leveraged its power in operating systems to maintain its dominance in operating systems and to monopolize the market for browsers. In this regard, the government presented several different examples of Microsoft’s anticompetitive conduct:

A. Microsoft Attempted to Divide the Browser Market with Netscape. The government charged that in 1995, Microsoft met with Netscape executives and proposed that the two companies not compete in the sale of browsers. Microsoft allegedly proposed that Microsoft would offer Internet Explorer only to users of Windows, and that Netscape would sell browsers designed only for other operating systems. Although Netscape declined the deal, the proposal indicates that Microsoft was willing to engage in unlawful anticompetitive activities to protect its operating system monopoly and to take control of the browser market. This charge clearly was the government’s weakest claim in the case.

B. Exclusionary Agreements with Internet Access Providers (IAPs). Since more than 90% of new computers have the Windows operating system installed by OEMs, IAPs can gain an enormous marketing boost if they are permitted to advertise and distribute their services through an icon or folder on the Windows desktop. According to the government, Microsoft agreed with IAPs to give them attractive placements on the desktop. In return, the IAPs agreed (1) to promote and distribute Internet Explorer nearly exclusively to their subscribers, (2) to eliminate links on their websites from which subscribers could download competing browsers, (3) to ship their access software with only Internet Explorer as the browser, and (4) to use Microsoft-specific programming extensions in their websites so that the sites would

22 To view the original complaint, and numerous other documents filed in the case, go to the Antitrust Division’s website at http://www.usdoj.gov/atr. Click on Antitrust Case Filings and then U.S. v. Microsoft Corp.

look better when viewed with Internet Explorer. The gist of this allegation is that IAPs would do just about anything to get a prime spot on the ubiquitous Windows desktop. This would include giving up the power to promote or distribute Netscape Navigator, even if they felt that it was a better product or offered them or their subscribers certain advantages.

**C. Exclusionary Agreements with Internet Content Providers.** Newer versions of Internet Explorer had “channel” buttons appearing on the right side of the Windows desktop screen. Channel buttons provided advertising for and direct access to websites that occupied the channel. Microsoft gave Internet content providers, such as Disney and CBS Sportsline, the opportunity to license channel buttons having different levels of desirability. Those that wanted the most prominent placement had to agree to various conditions inhibiting their promotion or distribution of competing browsers. They also had to agree to use Microsoft programming extensions so that their sites would look best when viewed using Internet Explorer. The government claimed that content providers had substantial marketing-based motivations to enter these agreements, even if they otherwise may have preferred to work with Netscape. Before the government filed suit, Microsoft announced that it planned to discontinue these agreements. Nonetheless, the government felt that they already had caused substantial harm, requiring an antitrust remedy.

**D. Contracts with OEMs about Boot-Up and Desktop Screens.** Microsoft required OEMs, as a condition of obtaining a license for Windows, to agree that they would not modify the appearance, sequence, sounds, or content of the boot-up screen. They also agreed that they would not modify the appearance of the Windows desktop screen (beyond certain narrowly circumscribed permitted changes). The government charged that these restrictions ensured that if an OEM installed a competing browser, the OEM could not give that browser more prominence or visibility than it gave to Internet Explorer. They also ensured that Microsoft could honor its agreements with ISPs and content providers, under which Microsoft promised to give preferential placements on the desktop. The government alleged that these agreements reduced the ability of OEMs to customize and differentiate their products in ways that might enhance competition between Microsoft products and other vendors. They also furthered Microsoft’s attempts to leverage its monopoly power in operating systems to the browser market.

**E. Tying of Internet Explorer to Windows 95.** The government argued that Internet Explorer was a separate product from the Windows 95 operating system. It claimed that many accepted indices of how product markets should be defined, such as sales, distribution practices, promotion policies, and industry customs, demonstrated that the browser must be treated as a product separate from Windows 95. According to the Justice Department, since Internet Explorer is a separate product from Windows 95, Microsoft engaged in unlawful tying by requiring OEMs to license and install Internet Explorer in order to put the Windows 95 operating system on their machines. Based on this allegation, Microsoft may not only have furthered its campaign to monopolize, but it also may have engaged in an illegal per se violation of the Sherman Act, Section 1.

**F. Tying of Internet Explorer to Windows 98.** The government claimed that Microsoft had no legitimate business reason to more tightly bundle Internet Explorer with the operating system as it did with Windows 98. Rather, its sole intent was to defeat Navigator. If this were not the case, the government posed, why wouldn’t Microsoft offer bundled and unbundled versions of its operating system, and let customers and OEMs choose which solution was superior? In the government’s eyes, Windows 98 offended the antitrust laws in the same ways as did Windows 95 by tying Internet Explorer to the separate operating system.

**G. Exclusionary Agreements with Independent Software Developers.** The government alleged that Microsoft gave independent software developers additional technical information and preferential support if they agreed to make Internet Explorer the default browser.

**H. Anticompetitive Dealings with Apple Computer.** Microsoft pledged to cancel development of MacOffice, even though the product was nearly completed, unless Apple promised to make Internet Explorer its default browser and to remove icons for non-Microsoft browsers from the desktop.

**I. Development of an Incompatible Java System.** Microsoft developed a Java system that worked specifically with Windows. Thus, a Java program written for the Microsoft system might not operate effectively with other operating systems. Also, Java programs designed to work with Microsoft’s Java system would not work with
Sun Microsystems’s Java system, which allowed compatibility across different operating system platforms. Microsoft gave preferences to software developers who wrote Java programs for the Microsoft system. Microsoft allegedly told software developers that their programs would still function with Sun’s Java system (and thus other operating systems) when this, in fact, may not have been true.

**Trial Proceedings and Associated Concerns**

On October 19, 1998, the government and Microsoft delivered their opening arguments, thus marking the beginning of this historic trial. Ironically, the case was argued before Judge Thomas Jackson, the same judge who issued the December 11, 1997, preliminary injunction. The parties offered testimony for five months. During this time, there was substantial speculation that government lawyers were being very persuasive in making their case. Thus, there was a lot of discussion about what the remedy might be, should the judge determine that Microsoft did, indeed, violate the antitrust laws.

As previously mentioned, the least intrusive form of remedies would be conduct relief. With these, the court would prohibit Microsoft from continuing to employ the types of actions and agreements that the judge determined were anticompetitive. Thus, the judge might prohibit Microsoft from pressuring OEMs regarding information presented on the desktop or during the boot-up sequence. Or he might require Microsoft to offer OEMs a current and working version of Windows that does not include Internet Explorer. The problem with these remedies is that they do not make up for any competitive advantage that Microsoft may have gained while it used the offensive practices. Justice Department data, for example, showed that Internet Explorer’s new users rose from 28% in the second quarter of 1997 to 60% in the third quarter of 1998, while Netscape’s share decreased from around 70% to 30% in the same period. Thus, the competitors might need a “kick-start” to get back to where they should have been.23

At the time, it was not clear what kinds of remedies the court might impose to allow competitors to overcome the unwarranted advantages enjoyed by Microsoft as a result of its unlawful conduct. Perhaps the court could forbid Microsoft from distributing Internet Explorer for a certain period of time. However, courts often are not willing to meddle in the markets in this fashion. Nor, some experts believe, should they. For this reason, there was talk during the trial that the judge should consider structural relief. Structural remedies would require Microsoft to divest certain assets or business units so that the market could attain the level of competitiveness that would have existed had Microsoft not engaged in unlawful practices. For instance, Microsoft could be broken up along functional lines, or at least be ordered to divest its browser business. Or perhaps the judge might break Microsoft up into several integrated companies.

The two sides presented their closing arguments in September 1999. Even though the case was heard at breathtaking speed in antitrust terms, there was speculation that the pace of change in the technology world still had outstripped it. For instance, during the proceedings, America Online bought Netscape, putting it into the hands of what was, at that time, the world’s most dominant Internet service provider. In addition, a new operating system called Linux had risen dramatically in popularity. Thus, to some, the case had become moot and, indeed, Microsoft argued that it could not be characterized as a monopoly in light of these and other developments.

After closing arguments, the parties had to await Judge Jackson’s decision. The judge broke up this phase of the trial so that it extended over a period of time, perhaps to encourage the sides to settle before he had to render a judgment and determine the appropriate remedy. The judge issued his findings of fact on November 5, 1999. The findings strongly supported the government’s allegations, and there was tremendous speculation that Microsoft would lose the case should it not settle.

The next step was scheduled for February 22, 2000, when the parties had to make oral arguments to the judge regarding whether the conduct amounted to antitrust violations. In the meantime, Judge Jackson ordered the parties to attempt to mediate a solution. To help the parties narrow their differences, Judge Richard Posner, the chief justice of the Seventh Circuit Court of Appeals, agreed to serve as mediator. During this period, there was some anticipation that Microsoft would find a way to settle the case. Besides worrying that Judge Jackson was likely to decide in the government’s favor, Microsoft had to consider that

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23 The Supreme Court has ruled that once a Section 2 violation has been proven, “it is the duty of the court to prescribe relief which will terminate the illegal monopoly, deny to defendant the fruits of its statutory violation, and ensure that there remains no practices likely to result in monopolization in the future.” *U.S. v. United Shoe Machinery Corp.*, 391 U.S. 244, 250 (1968).
private parties might introduce a final judgment in treble damage lawsuits against the company. Notwithstanding these potential perils, the two sides never reached a settlement regarding the antitrust charges. Thus, the parties proceeded through oral arguments, and on April 3, 2000, Judge Jackson issued his historic decision.

The Antitrust Decision and Remedies

The judge agreed with the government on almost every dimension of the case. He determined that Microsoft violated Section 2 of the Sherman Act since the company had unlawfully used the power it enjoyed with Windows to maintain its dominance in the market for Intel-based PC operating systems. Further, Microsoft violated Section 2 by leveraging its power in operating systems in an attempt to take control of the browser market. Judge Jackson also ruled that Microsoft violated the Sherman Act, Section 1, by unlawfully tying its browser to the operating system. On this point, the judge was careful to address the previous concerns of the court of appeals, and indicated his confidence that the determination was consistent with Supreme Court precedents. Finally, the judge found that Microsoft had violated state antitrust laws in all of the states involved in the lawsuit.

On June 7, 2000, Judge Jackson released his eagerly awaited order regarding the remedies that Microsoft would have to fulfill to account for its unlawful behavior. In his order, the judge made it clear that he was angry that Microsoft did not come to a settlement during mediation. In addition, the judge stated that Microsoft had proven to be untrustworthy in the past, and that the company had shown little disposition to alter its business practices. Thus, he concluded that both structural and conduct remedies were necessary. On the structural dimension, Judge Jackson ordered that Microsoft be broken up into two companies: An operating system business and a computer applications business. Exhibit 4 provides a sample of the kinds of conduct remedies that the judge ordered Microsoft to satisfy. The judge suspended application of all of these remedies pending appeals, however.

The Appeal

The antitrust laws include a special statute, called the Expediting Act, which allows a judge to certify a case for immediate appeal to the Supreme Court when a case is of general public importance to the administration of justice. Judge Jackson believed that this was such a case, and so certified the appeal. In effect, this gave the Supreme Court the option of reviewing the case immediately or having it follow the usual channels through the D.C. Circuit Court of Appeals. The government supported direct review by the Supreme Court, since it would shorten the delay until the implementation of the remedies. In addition, as already noted, the D.C. Circuit had previously hinted that it might use a different legal standard to appraise Microsoft’s tying arrangements. However, to the government’s disappointment, the Supreme Court, by an 8–1 margin, refused to hear the direct appeal. This set the stage for the D.C. Circuit’s review of Judge Jackson’s antitrust decision and order.

<table>
<thead>
<tr>
<th>EXHIBIT 4</th>
<th>Microsoft Case: Selected Conduct Remedies Ordered by Trial Court</th>
</tr>
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<tbody>
<tr>
<td>• Restrictions on OEM relations, including (i) a ban on adverse actions for supporting competing products, (ii) requirements for uniform licensing terms for Windows operating system products, and (iii) allowing OEM flexibility in designing product configurations.</td>
<td></td>
</tr>
<tr>
<td>• Disclosure of application programming interfaces, communication interfaces, and technical information. Microsoft must create a secure facility where other companies can view its source code and related documentation.</td>
<td></td>
</tr>
<tr>
<td>• Microsoft is restricted from taking actions that degrade the performance of any non-Microsoft middleware without meeting certain notification requirements.</td>
<td></td>
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<tr>
<td>• Microsoft is banned from engaging in certain forms of exclusive dealing or tying arrangements.</td>
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<tr>
<td>• Microsoft is restricted from bundling any middleware product to its operating system unless it also offers an identical version of the operating system from which the middleware can easily be removed.</td>
<td></td>
</tr>
<tr>
<td>• Microsoft must create an internal compliance structure to ensure compliance with the antitrust laws and the court order.</td>
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United States V. MICROSOFT CORPORATION
D.C. Circuit Court of Appeals, 2001

FACTS: Microsoft challenges the district court’s legal conclusions as to all three alleged antitrust violations: monopolization, attempted monopolization, and tying. It also argues that the remedial order must be set aside. In addition, Microsoft asserts that the trial judge committed ethical violations by engaging in impermissible contacts and making inappropriate public comments while the case was still pending.

DECISION AND REASONING: We pause to reflect on two matters of note, one practical and one theoretical. The practical matter arises because six years have passed since Microsoft first engaged in its allegedly anticompetitive conduct. Six year seems like an eternity in the computer industry. By the time a court can assess liability, the firms, products, and the marketplace are likely to have changed dramatically. This, in turn, threatens enormous practical difficulties for courts considering the appropriate measure of relief. Conduct remedies may be unavailing because innovation to a large degree has already rendered the anticompetitive conduct obsolete (although by no means harmless). And broader structural remedies present their own set of problems, including how a court goes about restoring competition to a dramatically changed, and constantly changing, marketplace.

The second matter is more theoretical. We decide this case against a backdrop of significant debate among academics and practitioners over the extent to which “old economy” monopolization doctrines should apply to firms competing in dynamic technological markets characterized by network effects. Competition in such industries is “for the field” rather than “within the field.” Rapid technological change leads to markets in which firms compete through innovation for temporary market dominance, from which they may be displaced by the next wave of product advancements. With this backdrop in mind, we turn to the specific challenges raised by Microsoft’s appeal.

A. Monopolization

Market Power. The district court defined the market as the licensing of all Intel-compatible PC operating systems worldwide, finding that there are currently no products—and there are not likely to be any in the near future—that a significant percentage of computer users worldwide could substitute for these operating systems without incurring substantial costs. The court found that consumers would not switch from Windows to Mac OS in response to a substantial price increase because of the costs of acquiring the new hardware needed to run Mac OS and compatible software applications, as well as because of the effort involved in learning the new system and transferring files to its format. We have no basis for upsetting the court’s decision to exclude Mac OS from the relevant market. The district court also found that because information appliances fall far short of performing all of the functions of a PC, most consumers will buy them only as a supplement to their PCs. We adhere to this conclusion.

This brings us to Microsoft’s main challenge to the district court’s market definition: the exclusion of middleware. Middleware refers to software products that expose their own application programming interfaces (APIs). If developers could write applications relying exclusively on APIs exposed by middleware, their applications would run on any operating system on which the middleware was also present. Microsoft argues that, because middleware could usurp the operating system’s platform function and might eventually take over other operating system functions, the court erred in excluding Navigator and Java from the relevant market. The test for reasonable interchangeability, however, required the district court to consider only substitutes that constrain pricing in the reasonably foreseeable future. Whatever middleware’s ultimate potential, the district court found that consumers could not now abandon their operating systems and switch to middleware in response to a sustained price for Windows above the competitive level. We agree that the district court had good reason for excluding middleware from the relevant market.

Having thus properly defined the relevant market, the district court found that Windows accounts for a greater than 95% share. We agree with Microsoft that because of the possibility of competition from new entrants, looking to current market share alone can be misleading. In this case, however, the district court was not misled. Considering the possibility of new rivals, the court focused not only on Microsoft’s present market share, but also on the structural barrier that protects the company’s future position. That barrier—the applications barrier to entry—stems from two characteristics of the software market: (1) most consumers prefer operating systems for which a large number of applications have already been written; and (2) most developers prefer to write for operating systems that already have a substantial consumer base. This “chicken-and-egg” situation ensures that applications will continue to be written for the already dominant Windows, which in turn ensures that consumers will continue to prefer it over other operating systems. Of course, if middleware were to succeed, it would erode the applications barrier to entry. However, middleware will not do this in the foreseeable future.

(continues)
It is certainly true that Windows may have gained its initial dominance in the operating system market competitively—through superior foresight or quality. But this case is not about Microsoft’s initial acquisition of monopoly power. It is about Microsoft’s efforts to maintain this position through means other than competition on the merits. Because the applications barrier to entry protects a dominant operating system irrespective of quality, it gives Microsoft power to stave off even superior new rivals.

Anticompetitive Conduct. To be condemned as exclusionary, a monopolist’s act must have anticompetitive effect. If there is an anticompetitive effect, then the defendant may demonstrate that there is a procompetitive justification. It is up to the plaintiff, then, to prove that the anticompetitive harm from the conduct outweighs the procompetitive benefits.

OEM License Restrictions. Microsoft requires OEM’s to preinstall Explorer. The district court found that OEMs cannot practically install a second browser because the redundancy can lead to confusion among novice users, thereby increasing OEM support costs. The district court determined that this was anticompetitive and we agree. Microsoft also prohibits OEM’s from modifying the initial boot sequence and from altering the Windows desktop. This, in turn prevents OEM’s from promoting rival browsers or IAPs that use rival browsers. We also agree with the district court that these restrictions are anticompetitive.

With one exception, there are no procompetitive justifications for these restrictions and so all but that one instance violate Section 2 of the Sherman Act. To protect its copyrights, Microsoft has good reasons to prevent OEM’s from causing an entirely different user interface to launch immediately after the boot sequence. We therefore hold that this particular restriction does not violate Section 2.

Integration of Explorer and Windows. As a general rule, courts are properly very skeptical about claims that competition has been harmed by a dominant firm’s product design changes. The district court condemned as anticompetitive Microsoft’s decision to exclude IE from the Add/Remove programs utility in Windows 98. This reduces the usage share of rival browsers by discouraging OEM’s from distributing rival products. The court also condemned Microsoft’s decision to bind IE to Windows 98 by placing code specific to Web browsing in the same files as code that provided operating systems functions. This ensures that the deletion of any file containing browsing-specific routines would also delete vital operating systems routines and thus cripple Windows. We agree that these actions are anticompetitive and that Microsoft failed to demonstrate procompetitive justifications.

Agreements with Internet Access Providers. The district court condemned Microsoft’s actions in (1) offering Explorer for free to IAPs and (2) offering IAPs a bounty for each customer the IAP signs up for service using the Explorer browser. Except in the rare case of predatory pricing, the antitrust laws do not condemn even a monopolist for offering its product at an attractive price, and we therefore have no warrant to condemn Microsoft for offering Explorer free of charge.

Microsoft also provided IAPs preferred placement on the Windows desktop in return for the IAPs’ agreement to promote Explorer exclusively and to restrict shipments of Internet access software utilizing Navigator. Plaintiffs allege that, by closing to rivals a substantial percentage of the available opportunities for browser distribution, Microsoft managed to preserve its monopoly in the market for operating systems. The IAPs constitute one of the two major channels by which browser can be distributed. Microsoft has exclusive deals with 14 of the top 15 access providers in North America, which account for a large majority of all Internet access subscriptions. These deals have a significant anticompetitive effect in preserving Microsoft’s monopoly. Since Microsoft did not provide any procompetitive justification for these arrangements, we affirm the district court’s decision that they violate Section 2 of the Sherman Act.

Dealings with Independent Software Vendors (ISVs) and Apple. The district court found that Microsoft gave ISVs preferential support if they used Explorer as the default browser. The district court found that the effect of these deals was to ensure that many of the most popular Web-centric applications would rely on browsing technologies found only in Windows. Since these deals have a substantial effect in preserving Microsoft’s monopoly, we hold that plaintiffs have proven their anticompetitive effect. Microsoft offered no procompetitive justification to support these arrangements. Thus, they violate Section 2.

In June 1997, Bill Gates stated that Apple had let Microsoft down on the browser by making Netscape its standard and called Apple’s CEO to discuss the cancellation of MacOffice. Within a month of the call, Apple agreed to bundle Explorer with the Mac OS and to make Explorer the default browser. It also agreed to not position icons for non-Microsoft browsers on the desktop. Since these agreements restricted the distribution of rival browsers, they served to protect Microsoft’s monopoly and must be regarded as anticompetitive. Microsoft offered no procompetitive justification for the arrangement, and so it violates Section 2.

Java. A monopolist does not violate the antitrust laws simply by developing a product that is incompatible with those of its rivals. Rather, the incompatible product must have an anticompetitive effect that (continues)
outweighs any procompetitive justification for the design. Microsoft’s Java Virtual Machine (JVM) allows applications to run faster on Windows than does Sun’s JVM, and does not itself have any anticompetitive effect. Therefore, we reverse the district court’s imposition of liability for Microsoft’s development and promotion of its JVM.

However, Microsoft gave contractual preferences to ISVs that made their Java applications reliant on Window’s-specific technologies. These contracts protected Microsoft’s monopoly from a middleware threat, and were thus anticompetitive. Since Microsoft offered no procompetitive justification, they violated Section 2.

Microsoft also deceived software developers by giving them software development tools for Microsoft’s JVM which, unbeknownst to the developers, made it so that their software was only compatible with Microsoft’s JVM and not Sun’s. As a consequence, even Java developers who preferred portability over performance unwittingly wrote Java applications that ran only on Windows. This conduct was anticompetitive, and not surprisingly, Microsoft offers no procompetitive explanation for its campaign to deceive developers.

B. Tying

The district court found that Microsoft’s contracts and actions, which served to bundle Explorer with Windows, constituted illegal per se tying.

The nature of the platform software market affirmatively suggests that per se rules might stunt valuable innovation. Because of the pervasively innovative character of platform software markets, tying in such markets may produce efficiencies that courts have not previously encountered, and that the Supreme Court thus had not factored into the per se rule as originally conceived. There may be a number of efficiencies that, although very real, have been ignored in the calculations underlying the adoption of a per se rule for tying. We fear that these efficiencies are common in technologically dynamic markets where product development is especially unlikely to follow an easily foreseen linear pattern. Thus, we cannot comfortably say that bundling in platform software markets has so little redeeming virtue, and not surprisingly, Microsoft offers no procompetitive explanation for its campaign to deceive developers.

C. Attempted Monopolization

The district court found that Microsoft attempted to monopolize the browser market in violation of Section 2. Plaintiffs did not provide sufficient evidence to make their case. Accordingly, we reverse the district court’s determination of Section 2 liability for attempted monopolization.

D. Trial Proceeding and Remedy

Failure to Hold an Evidentiary Hearing. A party has the right to judicial resolution of disputed facts not only as to the liability phase, but also as to appropriate relief. This rule is no less applicable in antitrust cases. The Supreme Court has recognized that a full exploration of facts is usually necessary for a district court to properly draw an antitrust decree so as to prevent future violations and eradicate existing evils. The district court thus erred when it resolved the parties’ remedies-phase disputes by consulting only the evidence introduced at trial, and without considering the evidence Microsoft sought to introduce for the remedies phase. We therefore vacate the district court’s final judgment and remand with instructions to conduct a remedies-specific evidentiary hearing.

Modification of Liability. Quite apart from these procedural difficulties, we vacate the district court’s final judgment for the additional independent reason that we have modified the underlying bases of liability. Of the three antitrust violations originally identified by the district court, one is no longer viable (attempted monopolization), and one will be remanded for liability proceedings under a different legal standard (tying). Only liability for monopoly maintenance has been affirmed. The district court did not determine whether all of the equitable remedies were required to rectify a monopoly maintenance violation taken alone. Thus, we must vacate the remedies decree and remand the case for a new determination.

On Remand. On remand, the district court must reconsider whether the use of the structural remedy of divestiture is appropriate with respect to Microsoft, which argues that it is a unitary company. Divestiture is a common form of relief in successful antitrust cases. However, by and large, the cases which approve of dividing companies have involved the dissolution of entities formed by mergers and acquisitions. One apparent reason why courts have not ordered the dissolution of unitary companies is logistical difficulty. A corporation designed to operate effectively as a single entity cannot readily be dismembered of parts of its various operations without a marked loss of efficiency.

E. Judicial Misconduct

From published accounts, it is apparent that the district court judge gave secret interviews to reporters before entering final judgment. The accounts indicate that the judge discussed numerous topics relating to the case. Among them was his distaste for the defense of technological integration—one of the central issues in the lawsuit. Reports of the interviews have the judge discussing Microsoft’s conduct, with particular emphasis on what he regarded as the company’s prevarication, hubris, and impenitence. Rather than manifesting neutrality and impartiality, the reports of
The most serious misconduct occurred near or during the remedial stage. Therefore, we disqualify the district court judge retroactively only to the imposition of the remedy. For this reason, we also vacate the remedy order because of the appearance of partiality created by the judge’s misconduct. We remand the case to the district court for reassignment to a different trial judge for further proceedings consistent with this opinion.

The court of appeals decision was at least a partial victory for Microsoft, because it did overturn all of Judge Jackson’s remedies, including the dreaded break-up order. In addition, the appeals court reversed the conclusions that Microsoft had engaged in illegal per se tying and attempted monopolization of the browser market. On the other hand, to Microsoft’s dismay, the court affirmed the conclusion that the company had violated Section 2 of the Sherman Act by implementing anticompetitive steps to maintain its market power in operating systems. Thus, Microsoft now faced two distinct kinds of legal battles in the United States. First, the government’s case returned to the district court, though now before a new presiding judge. In this regard, Microsoft expected that it might benefit from the recent presidential election, which brought the Justice Department under the wing of the Republican Party. Although Microsoft had to face the music on the monopolization charge, it still had opportunities to settle the other charges and, more importantly, the remedies that the government would seek. Microsoft’s other legal dilemma in the United States involved the series of private lawsuits claiming damages from Microsoft’s now proven anticompetitive conduct.

**The Settlement and Other Subsequent Events**

In November 2001, the Justice Department and Microsoft reached a settlement regarding the remaining charges and the actions that Microsoft would have to take to remedy its antitrust violations. The agreement restricted Microsoft’s conduct for five years, with the understanding that the term might be extended if the company violated the stipulations. Under the agreement, Microsoft promised to abide by the following conditions, among many others:

1. Microsoft will not use restrictive contract terms and pricing arrangements with personal computer makers, IAPs, or independent software developers that effectively force them to favor Microsoft products over rival offerings.
2. Personal computer manufacturers may remove desktop icons for Microsoft products, such as its browser, media player, and instant messaging software.
3. Microsoft must share technical information in a secure facility with software and hardware makers whose products interface with Windows. However, there are exceptions for certain technical disclosures, such as when they might compromise the security of Microsoft’s digital rights management system, its Passport online identification system, or its antivirus or encryption software.
4. A three-member advisory committee will ensure that Microsoft complies with the agreement.

Charles James, the newly appointed attorney general heading the Justice Department’s Antitrust Division, stated that the settlement would remedy the problems caused by Microsoft’s unlawful conduct, prevent recurrence of those problems, and restore competition in the software and computer industries. The agreement had numerous critics, however, including the attorneys general of several states involved in the litigation. They argued that the agreement did not go far enough to promote competition and had too many loopholes. Opponents suggested, for instance, that Microsoft, among other actions, should have been forced to put Internet Explorer in the public domain, include Sun Microsystems’s latest Java technologies with Windows, unbundle the media player and instant messaging software from Windows, and license Windows to other companies.
Soon thereafter, nine of the state attorneys still involved in the case joined the Justice Department’s settlement. The remaining states, though, were not satisfied, and so pressed on with the antitrust action. This meant that the district judge had to hold two sets of hearings: one to determine if the settlement was in the public interest and the other to address the continuation of the antitrust litigation. In November 2002, the judge approved of the settlement with only very minor modifications, and rejected the contention by the remaining states that stronger measures were required. The state of Massachusetts persisted, and appealed to the D.C. Circuit, but the appellate court upheld the ruling in 2004. With that, the government’s case effectively came to a close, and Microsoft breathed a noticeable sigh of relief. Exhibit 5 provides a chronology of the important events that transpired over the eight years during which the government pursued Microsoft for violating the antitrust laws.

| EXHIBIT 5 |
| The Government’s Microsoft Case: Timeline |
| July 1994 | Justice Department sues Microsoft, alleging that Microsoft engaged in anticompetitive practices with OEMs to preserve its monopoly in operating systems. |
| Aug. 1995 | Justice Department and Microsoft settle dispute with consent decree. Agreement prohibits tying arrangements but permits integrated products. |
| Dec. 1997 | District court rules that Microsoft was not in contempt because Explorer was integrated as defined in consent decree. However, district court determines that Microsoft likely violated antitrust laws and enters a preliminary injunction. |
| April 1998 | Court of appeals vacates the preliminary injunction on procedural grounds. |
| May 1998 | Justice Department and 20 state attorneys general sue Microsoft, alleging monopolization of the operating system market and illegal per se tying of Explorer to Windows, among other offenses. |
| April 2000 | Trial judge concludes that Microsoft violated Sections 1 and 2 of the Sherman Act, and individual state laws. |
| June 2000 | Trial judge orders conduct remedies and structural remedy—that Microsoft be broken up into an operating systems business and a computer applications business. |
| Sept. 2000 | Supreme Court refuses to hear direct appeal and sends case to D.C. Court of Appeals. |
| June 2001 | The court of appeals affirms that Microsoft violated the Sherman Act, Section 2, by maintaining its monopoly in operating systems with anticompetitive acts. The court vacates the remedies and disqualifies the trial court judge. |
| Nov. 2001 | Justice Department and nine state attorneys general settle with Microsoft. |
| Nov. 2002 | Trial judge approves the settlement and rejects request from remaining states for stronger remedies. |
| May 2003 | Massachusetts and West Virginia appeal the trial judge’s decision. West Virginia drops its appeal in June 2003. |
| June 2004 | The D.C. Court of Appeals rejects the Massachusetts appeal. |

Although Microsoft wrapped up the government’s antitrust proceedings, the company still faced other antitrust battles. As expected, the final appellate court judgment that Microsoft had engaged in unlawful monopolizing led to a large number of private suits. For instance, by some accounts, Microsoft was hit by more than 100 class-action suits involving consumers alleging that they overpaid for the Windows operating system. Some of these were dismissed due to a procedural element of the federal antitrust laws that only allows direct purchasers to sue for antitrust damages. For this reason, consumers who obtained Windows from OEMs (and thus did not buy it directly from Microsoft) might not be able to sue Microsoft. However, some state antitrust laws, such as the one in California, do not have this limitation. Therefore, Microsoft sought to find ways to settle these claims. For instance, Microsoft settled a California class-action case in 2003, agreeing to give up to $1.1 billion in vouchers (for new computers and software) to claimants who had previously purchased Windows or particular Microsoft software. In addition, Microsoft promised to give a substantial portion of any unclaimed proceeds to California’s neediest schools so that
they might buy computer equipment. Soon thereafter, Microsoft settled all of the remaining class action suits, agreeing to pay nearly $2 billion in the aggregate.24

Microsoft was also hit by suits from several competitors, alleging that they were harmed by Microsoft’s unlawful conduct. As you probably guessed, Netscape’s new owner, AOL Time Warner, sued on the grounds that Microsoft defeated Netscape’s business opportunities. In its defense, Microsoft argued that Netscape lost market share because of its own mistakes and not because of Microsoft’s conduct. Nonetheless, Microsoft settled with AOL in 2003, agreeing to pay $750 million and providing other benefits involving Internet Explorer and Windows Media.

Sun Microsystems sued for over $1 billion in damages based on Microsoft’s efforts to thwart Sun’s Java technologies. After several rounds of contentious court battles, the parties entered a comprehensive settlement in 2004, under which Microsoft agreed to pay Sun a total of $1.95 billion to address the antitrust issue and other patent claims. In the pact, the two companies also pledged to work closely together for a 10-year period by sharing technology and licensing each other’s intellectual property.

In a closely related action, RealNetworks also sued Microsoft for over $1 billion in damages, alleging that the software giant had unlawfully leveraged its monopoly power in Windows to dominate the market for multimedia software by bundling the Windows Media Player in with the operating system. In 2005, Microsoft settled this dispute as well, agreeing to provide $761 million in cash and marketing services. The parties also promised to join forces in several ways to counter the rising popularity of Apple’s iTunes multimedia service.25

In the next section, the text briefly explores the international dimension of antitrust, particularly in the European Union. Along with its troubles in the United States, Microsoft also faced substantial scrutiny by antitrust regulators within the European Commission (EC).26 The original investigation stemmed from a 1998 complaint by Sun Microsystems, which charged that Microsoft leveraged its market power in PC operating systems to dominate the market for network server software. Later, several companies, including RealNetworks, asked the commission also to investigate how Microsoft bundled various services, such as instant messaging and multimedia software, into Windows XP. In 2004, the EC determined that Microsoft had violated European antitrust laws, and fined the company 497 million euros ($613 million at that time). In addition, and potentially of more importance, the EC also ordered Microsoft (1) to disclose complete interface documentation so that competitors would be able to develop compatible network server software, and (2) to offer computer manufacturers the option of installing a version of the Windows operating system without its Windows Media Player.

Microsoft appealed the ruling to the European Court of First Instance, but late in 2004, the court issued a preliminary order requiring Microsoft to comply with the remedies. Soon thereafter, in 2005, Microsoft offered a Windows product without the media player, which it called Windows XP N. Interestingly, by the end of 2005, none of the major retail outlets or computer manufacturers selling in Europe had plans to offer the stripped-down version of Windows. Microsoft also released technical information that it claimed allowed server compatibility, but in December 2005, the European Commission charged that the information was insufficient, and consequently the commission threatened to impose fines totaling 2 million euros (around $2.36 million) per day. On top of this, the Commission warned Microsoft in March, 2006 that the inclusion of certain search services and security features in its eagerly-awaited Vista operating system might run afoul of European antitrust laws. Meanwhile, as the two sides sparred on these issues, Microsoft continued to push its appeal of the European Commission’s initial 2004 antitrust ruling in the courts. Clearly, you need to stay tuned to how all of these developments in Europe ultimately become resolved.

This book has focused a lot of attention on the antitrust actions against Microsoft because they demonstrate so much about how antitrust policy is made and how it is enforced. They have also raised enormous philosophical questions about the legitimacy of antitrust in the rapidly changing technology

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24 Some of the other settlements included $241 million in Minnesota, $202 million in Florida, $105 million in Arizona, $90 million in North Carolina, $35 million in Massachusetts, and $32 million in Kansas.

25 In other actions, Microsoft settled with Novell in 2004 for $536 million to address allegations related to networking software. It also settled claims by Be Inc., a small operating system company, in 2003 for $23 million, and with the Computer & Communications Industry Association for $20 million in 2004. As of early 2006, Novell still had an antitrust action pending against Microsoft alleging that Microsoft had used its operating system monopoly to harm the distribution of the WordPerfect word processing program and the Quattro Pro spreadsheet program.

26 The website for the European Commission is http://europa.eu.int/comm. Microsoft also faced antitrust scrutiny in other countries. For instance, in 2005, South Korean regulators ordered Microsoft to separate its media player and instant messaging service from Windows. Microsoft filed an appeal in 2006.
landscape. The resolution of the Microsoft cases will not answer these difficult questions. Rather, they will set the stage for new debates regarding the role that regulation must play to preserve competition through the next century.

**INTERNATIONAL DIMENSIONS OF ANTITRUST**

Most high-technology enterprises now take on global dimensions and thus must be concerned not only with the antitrust policies of the United States but with those of other nations as well. Obviously Microsoft now recognizes this fact, given that it continued to face scrutiny in the EU, even after taking steps to satisfy antitrust officials in the United States. Likewise, General Electric and Honeywell learned a hard lesson in 2001 when the EU Commission blocked their proposed $41 billion merger after the arrangement had been cleared in the United States by the Justice Department.

As with all international matters, there is no uniform standard for competition policy. Thus, a company must consider the competition policy of any nation that might be affected by its operations. This does not mean simply consulting the laws of the country where manufacturing takes place or where the corporate headquarters is housed. For instance, even foreign companies that have no assets in the United States may be subject to U.S. antitrust laws if their operations have a substantial and reasonably foreseeable effect on either the import trade or the domestic commerce of the United States. Other nations, too, may have policies with similar extraterritorial effect.

The competition policies of different nations vary widely, depending on their respective philosophies toward economic relationships. The WTO has begun to consider ways to develop a multilateral framework for antitrust enforcement by organizing the Working Group on the Interaction between Trade and Competition Policy. However, the prospects for achieving uniformity through this route likely will be remote for many years to come. Thus, one must always scrutinize local competition laws when entering new international markets. As just one example, we will take a brief look at the antitrust policies of the EU, which mirror those of the United States to some degree.

**ANTITRUST IN THE EUROPEAN UNION**

The Treaty of Rome governs competition policy in the European Union. Article 81, Section 1, of the treaty prohibits agreements that prevent, distort, or restrict competition in such a way that trade among the member states is affected. This wording somewhat parallels the Sherman Act, Section 1, especially in terms of its vague language and potential breadth. However, Article 81(1) goes further and specifically lists sets of practices that come within the general definition. These include concerted actions that (1) fix prices or trading conditions; (2) limit or control production, markets, or technical developments; (3) share markets; (4) discriminate against competitors; and (5) require supplementary and illogical tie-in obligations. At first blush, this seems to condemn many types of transactions that might pass muster under U.S. antitrust laws through application of the rule of reason. Indeed, Article 81(2) provides that all agreements that fall within Article 81(1) are automatically void. Thus, one might get the notion that many more types of business arrangements fall within an illegal per se status in the EU than in the United States. However, Article 81(3) reduces the sting of these provisions by allowing for potential exceptions to the blanket prohibitions. It states that an agreement or transaction may be declared lawful if it

1. Contributes to improving the production or distribution of goods or to promoting technical or economic progress in the EU;
2. Allows consumers a fair share of the resulting benefit;
3. Imposes only restrictions that are indispensable to the attainment of those objectives; and
4. Does not eliminate competition in a substantial part of the market for the products involved.

Based on this provision, businesses that are planning to engage in potentially restrictive transactions in the EU may notify the European Commission and request that the body clear their deals for antitrust purposes.

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27 The WTO provides information on these efforts at its website, http://www.wto.org. Click on A-Z List and then on Competition Policy.

28 For substantial information on competition policy in the EU, go to http://europa.eu.int/comm. Look under Economy and Society and click on Competition.
In effect, the commission then may exempt the deal based on its judgment that the benefits outweigh the harms according to the criteria of Article 81(3). This process raises enormous difficulties for business entities, however. For one thing, it may take years for the commission to examine a transaction and render its answer. Also, the commission sometimes may grant an exemption only on the condition that the parties make certain changes to their planned activities. There is another option, which is to request a comfort letter from the commission, assuring the parties that the commission will not undertake an enforcement action. Although a comfort letter is easier to get than an exemption, it does not carry as much legal weight in the courts if others should file complaints.29

As you might suspect, the European Commission would be buried with requests for exemptions if it had to rely solely on these methods to assure businesses about the antitrust consequences of their transactions. For this reason, the commission has devised a system to give preliminary approval to sets of activities by means of block exemptions.30 Block exemptions have been issued for various practices such as intellectual property licensing agreements, exclusive dealing situations, research and development agreements, vertical distribution restrictions, and franchising arrangements. The block exemptions are somewhat detailed and provide substantial guidance not only about agreements that are permissible but also about those that almost assuredly are not. For instance, the block exemption on technology transfer agreements refers to a list of “hardcore” restrictions that are illegal under all circumstances. However, all other kinds of arrangements are exempt if the parties do not exceed threshold market share conditions. For instance, when competitors enter non-hardcore intellectual property agreements, they can assume that they are exempt if their combined market shares do not exceed 20%.31 Viewing all of these procedures together suggests that antitrust in the EU ultimately is governed by principles akin to the rule of reason analysis used in the United States. However, the specific methods of applying the standards differ markedly and must be recognized before pursuing transactions within the EU.

Article 82 of the treaty prohibits the abuse of a dominant position—language that is reminiscent of Section 2 of the Sherman Act. As with the Sherman Act, it is not enough that one holds a dominant position. To be unlawful under Article 82, abusive exploitation of market power must also occur. Again, though, one should not be tempted by this similarity with U.S. policy to assume that EU antitrust principles always mirror those in the United States. For instance, private parties cannot bring causes of action in the EU for damages.32 In addition, the broad extraterritorial application of U.S. antitrust law is offensive to many European countries. Thus, the EU Commission usually does not take jurisdiction over activities that are conducted outside the EU.33 In addition, many observers believe that European antitrust regulators are much more likely than U.S. counterparts to rule that companies have dominance and that they have abused that dominance with their business practices.34

EU MERGER POLICY

The system for monitoring mergers in the EU is governed by the merger regulation, which was last revised in January 2004.35 The regulation provides that a concentration is incompatible with EU antitrust policies when it significantly impedes competition as a result of creating or strengthening a dominant position. The regulation essentially requires that all concentrations having a community dimension must be reported to the European Commission’s antitrust department—called the Directorate General for Competition (DG Competition)—in a preclearance procedure to make a determination about their dominance. Although this may seem burdensome, businesses actually want to be subject to the regulation because the DG Competition has exclusive jurisdiction over concentrations that come within the regulation’s terms. Thus,
when a concentration has a community dimension, the participants need to deal only with the DG Competition to gain approval, rather than having to negotiate with the antitrust authorities in all the individual EU countries that may be affected by the transaction.

According to the 2004 merger regulation, a concentration occurs when there is a change in control. This may happen in various ways, such as through mergers, spin-offs, acquisitions, stock swaps, management buyouts, joint ventures, and privatization. A key determinant is whether a firm has obtained a decisive influence over the strategic decisions of another entity, such as with its business or budgetary plans, financial investments, or board memberships.

The community dimension requirements have been a contentious aspect of the EU merger regime. According to the new regulation, one way that a concentration may have a community dimension is if

1. The aggregate worldwide turnover (sales) of all the parties involved is more than 5 billion European Currency Units (ECU); and
2. Aggregate turnover in the EU of at least two of the parties involved is more than 250 million ECU.

As you can see, this particular standard really only benefits large companies having sizable international operations. For this reason the new regulation provides that mergers between smaller companies also may have a community dimension if their operations are significant in at least three countries that are members of the EU.

Once the DG Competition takes jurisdiction over a concentration, the analyses for dominance and its effect on competition now follow principles similar to those used in the United States. Prior to 2004, the DG Competition often was criticized for focusing too much attention on market share statistics without paying enough attention to business efficiencies that might benefit consumers. However, in 2004, the European Commission passed horizontal merger guidelines that clearly instruct the DG Competition to evaluate potential market efficiencies before condemning mergers that otherwise might appear to be anticompetitive based on structural considerations. The guidelines caution that the efficiencies must be verifiable and likely to benefit consumers if they are to be recognized as mitigating factors in the merger analysis. Nevertheless, there is justifiable speculation that disagreements between EU antitrust regulators and their U.S. counterparts regarding significant international mergers will arise less often than perhaps they did in the past.

The European Commission and the U.S. regulatory agencies have also begun to work together to coordinate some of their activities. Through the mid-1990s, these efforts involved primarily procedural matters, such as notifications and the sharing of information. However, a joint agreement signed in 1998 has paved the way for greater coordination of enforcement activities. This is a welcome development for technology businesses that perhaps will serve as an important springboard for expanded global antitrust coordination through the WTO.

**ANTITRUST, INTELLECTUAL PROPERTY, AND THE DOCTRINE OF MISUSE**

Those high-technology firms dealing with intellectual property must come to grips with an inherent tension between intellectual property and antitrust policies. Intellectual property laws grant exclusivity to intangible assets so that creators have sufficient economic incentives to develop and disclose their works. In effect, the laws provide a form of limited monopoly, preventing others from accessing the intellectual property in ways proscribed by statute. For instance, the patent laws prevent others from making, using, or selling an invention, while the copyright laws keep the public from copying expressions. Since the purpose of the limited monopoly is to allow creators to earn economic benefits from exclusivity, one should expect those having such legal protection to try to maximize the economic returns from the rights bestowed.

Interesting issues arise, however, since these goals must interface with antitrust policies. That a company is granted a monopoly by the law does not mean it is immune from antitrust. In fact, just the opposite may be true. Those applying the antitrust laws are most worried about firms that hold a position of

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36 The agreement can be viewed on the U.S. Justice Department Antitrust Division website at http://www.usdoj.gov/atr. Click on Public Documents. Look under International Information, click on International Documents, and then click on Antitrust Cooperation Agreements.
economic strength in the marketplace. Thus, firms enjoying intellectual property rights, together with the monopoly-like status that attends them, may have to be particularly wary.

One burning question is whether the legal power associated with patents (or other intellectual property rights) actually equates with market power for antitrust analysis. For if it does, then it may be illegal per se for patent owners to engage in certain practices, such as tying separate products to the sale of their patented inventions. Many economists argue that patents do not necessarily confer market power. For instance, an inventor who receives a patent on an autofocusing device for cameras does not necessarily have market power, because cameras using that invention arguably must compete with cameras utilizing different autofocus technologies. In addition, they may have to contend with other types of cameras, such as those having manual focus and even static focus capabilities. Thus, one should not necessarily presume that patent owners have monopoly power simply by virtue of their patent rights.

As we shall see in the next section, the Justice Department and the FTC follow this approach when they analyze business practices involving intellectual property. Nevertheless, the notion that patents presumptively provide market power, at least with tying arrangements, was supported with a long line of Supreme Court precedents beginning in 1947. In fact, the Federal Circuit felt compelled to follow these precedents in 2005, despite recognizing that the great weight of modern economic thought was at odds with the conclusion.\(^{37}\) The court stated, “The time may have come to abandon the doctrine, but it is up to the Congress or the Supreme Court to make this judgment.” In 2006, the Supreme Court took the Federal Circuit up on its offer in *Illinois Tool Works, Inc. v. Independent Ink, Inc.*\(^{38}\), and unanimously decided to renounce its previous decisions. Thus, the courts, along with the antitrust enforcement agencies, now explicitly accept that the legal control established by patents or other forms of intellectual property do not necessarily confer market power for antitrust purposes.

**INTELLECTUAL PROPERTY ANTITRUST GUIDELINES**

Firms owning intellectual property violate the antitrust laws when they use their legally bestowed rights as leverage to achieve anticompetitive ends. For example, the following practices are just a few typical intellectual property transactions that may unreasonably restrain trade under certain factual conditions:

1. Tying arrangements, wherein customers are forced to purchase products they do not necessarily want in order to get the legally protected technology they do want;
2. Covenants not to deal in competing goods, in which licensees promise not to deal with products using competitive technologies;
3. Resale restraints, wherein certain controls are placed on how purchasers of products utilizing intellectual property may sell those products;
4. Price-fixing agreements, in which prices for products with protected technologies are specified;
5. Patent pooling, in which several companies bundle their separate patents into a given product; and
6. Grant-back provisions, requiring licensees to assign to the licensor ownership to inventions developed by the licensees during the license term.

Given all the uncertainty that exists regarding the impact of intellectual property in antitrust analyses, technology businesses certainly have a lot to worry about when they enter such transactions with their protected inventions. Although private parties and state attorneys general may bring suits, businesses typically are most concerned with how the Justice Department or FTC might react.

Periodically, the federal enforcement agencies issue antitrust guidelines.\(^{39}\) The guidelines are not the law; rather they represent the agency’s interpretation of what the law is and the forms of conduct that may violate it. Antitrust guidelines are useful to businesses because they indicate the circumstances under which the agencies might be inclined to bring enforcement actions. Before the 1990s, the Department of Justice and the FTC would issue their guidelines independently. However, the agencies now often work together and jointly release guidelines that reflect a common approach to enforcement. Perhaps the most well-

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\(^{38}\) 126 S. Ct. 1281 (2006).

known antitrust guidelines are the merger guidelines, which were issued by the Justice Department in 1984 and later were updated in a joint effort with the FTC in 1992. The agencies recently have issued other important guidelines dealing with such matters as antitrust enforcement of international operations and the health care industry.

On April 6, 1995, the Department of Justice and the FTC jointly released *Antitrust Guidelines for the Licensing of Intellectual Property*. For the most part, these guidelines provide substantial comfort to those dealing with intellectual property. One needs to look no further than the general principles to recognize that the guidelines embody a flexible and somewhat tolerant philosophy regarding intellectual property licensing. The general principles are as follows:

1. For the purpose of antitrust analysis, the agencies regard intellectual property as being essentially comparable to any other form of property.
2. The agencies do not presume that intellectual property creates market power in the antitrust context.
3. The agencies recognize that intellectual property licensing allows firms to combine complementary factors of production and is generally procompetitive.

Thus, the guidelines essentially confirm that the federal enforcement agencies will treat intellectual property just like any other factor of production. The fact that intellectual property may be defined as a limited monopoly in legal terms does not presumptively mean that it provides monopoly power in economic terms. Indeed, if anything, the guidelines offer reasons that intellectual property licensing might be looked at more favorably than more typical property arrangements. For instance, they discuss how integration of intellectual assets can benefit consumers through the reduction of costs and the introduction of new products. They also indicate how cross-licensing may be an efficient way to overcome certain problems encountered with intellectual property ownership, such as we noted in Chapter 4 with literal infringement and patent blocking.

The guidelines make it clear that the general approach to intellectual property licensing is through the rule of reason. Thus, in general, the agencies will first consider whether an arrangement in conjunction with market structure is likely to produce anticompetitive effects. If so, then the agency will look further and determine whether the licensing arrangement is necessary to achieve desirable procompetitive efficiencies. The guidelines discuss a variety of typical licensing techniques and provide insights about the types of conditions that might make them seem more or less reasonable in the eyes of the agencies. For instance, the guidelines specifically address tying arrangements, exclusive dealing, cross-licensing and pooling arrangements, grant-backs, and resale price agreements.

**The Guidelines Safety Zone**

The guidelines provide numerous assurances to business interests through their application of the rule of reason. Nonetheless, the very nature of the rule of reason means that businesses never can be sure that their conduct will not be challenged. The guidelines make a stunning contribution in this regard by providing for a *safety zone*. The guidelines state that absent extraordinary circumstances, the agencies will not challenge licensing arrangements in which the contracting companies collectively account for no more than 20% of each relevant market significantly affected by the license.40 This provision obviously is critical to small companies involved with intellectual property licensing, since it almost completely relieves them from antitrust concerns. The guidelines also make it clear that arrangements outside the safety zone are not presumed to be unlawful. Rather they simply may be subject to scrutiny. In this regard, the guidelines provide that the great majority of licenses falling outside the safety zone still will be viewed as procompetitive and lawful, in conformity with the general principles noted earlier.

**The Guidelines and Innovation Markets**

Although the intellectual property guidelines for the most part serve to comfort businesses involved with licensing, they do formalize a relatively new concept—called *innovation markets*—that might raise some concerns. Usually, antitrust analysis considers the potential competitive effects that arrangements may have on products and technology markets that already exist. However, the Justice Department and the FTC

40 Licensing arrangements that involve facially anticompetitive illegal per se violations of the antitrust laws are excluded from the safety zone.
recently have been concerned with how combinations of intellectual property assets might affect competition in research and development efforts directed to new or improved goods or processes. Their apprehension is that if one or a few firms tie up all the specialized assets needed to engage in the development of new products, then competition will be stifled to the detriment of the markets and consumers. As an example, the guidelines hypothesize that two companies specializing in advanced metallurgy agree to cross-license future patents relating to the development of a new component for aircraft jet turbines. If innovation in the development of the component requires the capability to work with very high-tensile strength materials, then there may be reason to determine the effect that the cross-license agreement will have on the ability of other firms to engage in high-tensile research for jet engines.

Commentators and scholars have argued heatedly about the propriety of considering innovation markets. The Justice Department and the FTC clearly have embraced the idea, though, since they have each brought several enforcement actions based on potential anticompetitive effects on innovation markets. The FTC, for instance, brought a highly publicized complaint against Intel in the late 1990s. The FTC charged that Intel withheld vital information about its chips from computer manufacturers, such as Digital Equipment and Compaq, which had sued Intel for violating their intellectual property rights. The thrust of the allegation was that Intel used its dominance in microprocessor chips to prevent technology companies from asserting intellectual property claims against it. The FTC alleged that this, in turn, might reduce the incentive for technology companies to develop innovations and compete in new markets. In 1999, the FTC reached an agreement with Intel. Thus, the courts did not address the concept of innovation markets in this dispute. Nonetheless, the theory of innovation markets definitely has gained a solid toehold in antitrust analysis. Therefore, technology firms now must consider how their licenses or other actions might retard the ability of other firms to engage in the research of promising new products or processes.

**MISUSE OF INTELLECTUAL PROPERTY**

**Patent Misuse**

Intellectual property owners, in general, must pay attention to the antitrust laws with the same respect as do other business operators. However, there is another, possibly more pernicious, doctrine that intellectual property owners must consider when transacting business involving their legally protected rights. The doctrine, called *misuse*, has its roots in the patent realm. According to a long line of patent cases, patent holders who misuse their legal privileges may not enforce their patent rights until the misuse terminates. What makes this doctrine so extreme is that it applies even when others knowingly and purposively infringe the patent. Making this more extreme is the fact that others may lawfully infringe the patent even if they are not personally subject to the misuse. This means that even if the conduct amounting to misuse is restricted to only a few business dealings, all patent rights nonetheless are essentially shelved until those incidents of misuse are completely purged.

Patent misuse arises in two contexts. From an academic sense, perhaps the least troubling is when a firm is using a patent in a way that violates the antitrust laws. At least one can take solace that the firm has done something tangibly wrong with the patent by using it to achieve anticompetitive ends. However, patent misuse has a life independent of the antitrust laws. In 1942, the Supreme Court made it clear in *Morton Salt v. Suppiger* that one may engage in misuse, even without violating the antitrust laws, by unlawfully extending the patent monopoly. Some situations of this type are easy to understand. For instance, if a licensor attempts to extend the life of a patent by requiring licensees to pay royalties beyond the patent term, then clearly a disruption of the patent system’s careful balance between incentives and disclosure has occurred. Note that this practice might pass muster under the antitrust laws. However, reference to antitrust is unnecessary because competitive effect is not the real issue. Rather, the concern is focused on the period of public exclusion and individual rights of access.

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41 The agreement may be viewed on the FTC website at http://www.ftc.gov. Click on Antitrust & Competition and then Case Filings. Click on Intel Corporation. Docket No. 9288.
42 An interesting related case involves allegations by the FTC that Rambus, Inc., deceived an industry-wide, standard-setting organization so that the organization would adopt a technological standard that, unbeknownst to its members, was subject to a pending patent application filed by Rambus. For information, go to the FTC website at http://www.ftc.gov, click on Antitrust & Competition and then Case Filings.
43 314 U.S. 488 (1942).
44 A relatively recent case that criticizes the misuse doctrine while feeling “forced” to apply it is *Scheiber v. Dolby Laboratories, Inc.*, 293 F.3d 1014 (7th Cir. 2002).
The difficulty with the independent line of misuse arises because most patent practices raise concerns only in a context of restraining competition. When misuse is not coupled with antitrust violations, one must argue that a practice judged reasonable under the antitrust laws should nevertheless be considered anticompetitive under the patent laws. One notable judge probably stated it best when he asked, "If misuse claims are not tested by conventional antitrust principles, by what principles shall they be tested?" However, misuse based on anticompetitive conduct without reference to antitrust remains alive in the courts.

Congress has questioned whether there can be patent misuse without an antitrust violation. In 1988, the Senate supported new legislation that, had it become law, would have prohibited a finding of patent misuse unless the patent holder had violated the antitrust laws as well. However, the House of Representatives did not go along with such a broad policy change. What resulted was the Patent Misuse Reform Act of 1988, which effectively removed refusals to deal from allegations of patent misuse and which instructed that misuse claims based on tying arrangements must conform more to antitrust principles.

Copyright Misuse

Soon thereafter, in 1990, a new twist was added to the misuse saga by the case Lasercomb America, Inc. v. Reynolds. Lasercomb developed a CAD/CAM program that it licensed to several businesses, including a competitor, Holiday Steel. Many of the licenses had durations of 99 years and provided, among other things, that during the license term and for 1 year thereafter, the licensees could not sell CAD/CAM programs. These terms were negotiable, and Holiday was not subject to the restriction on competition. Holiday circumvented protective devices on Lasercomb's CAD/CAM program and then made several copies of it for its own use and developed a commercial equivalent for sales to others. Lasercomb sued for copyright infringement.

Given these facts, you probably expect that Lasercomb won this case in slam-dunk fashion and, indeed, it did convince the lower court to find in its favor. Nonetheless, the appellate court agreed with Holiday that Lasercomb's licenses amounted to copyright misuse. The lower court judge determined that the license restrictions on competition were reasonable to protect Lasercomb's trade secrets in the program. The appellate court, though, ruled that this did not matter, on the assumption that reasonableness was related to antitrust concerns. The court stated, "The question is not whether the copyright is being used in a manner violative of antitrust law (such as whether the licensing agreement is reasonable), but whether the copyright is being used in a manner violative of the public policy embodied in the grant of a copyright." Based on this reasoning, the court determined that the clause violated copyright policy, due to its breadth and length. The court believed that Lasercomb went too far with its licenses, since it prevented the licensees from exercising their creative abilities to make and sell CAD/CAM programs for an extremely long time—in fact, longer than the duration of Lasercomb's copyright itself. Relying on the patent misuse doctrine, the court also ruled that it did not matter that Holiday was not subject to the misuse in its licenses. The court therefore ruled that Lasercomb could not enforce its copyrights until it purged its licenses of the copyright misuse.

For two reasons, Lasercomb shocked many legal analysts in the field. First, it confirmed the continuing viability of patent misuse based on anticompetitive conduct even when the actions are reasonable under antitrust policies. Second, it extended the misuse doctrine, which heretofore had been traditionally confined to the patent arena, to copyrights. This latter aspect has drawn the most attention because it raises the very real possibility that owners of copyrights in computer programs, among others, must now contend not only with antitrust but with misuse as well.

The appellate court was very critical of the methods used by Lasercomb to prevent licensees from accessing the ideas in its programs. This, in turn, has heightened concerns that trade secret protection methods may be incompatible with software licenses. One should not take these fears too far, though. Lasercomb’s strategy for protecting its trade secrets was to employ covenants not to compete, a technique which, as we have seen, is viewed skepticaly by many courts. They are, after all, somewhat of a hammer approach for ensuring that licensees do not use trade secrets in developing competitive products. Perhaps,  

45 USM Corp. v. SPS Technologies, Inc., 694 F.2d 505, 512 (7th Cir. 1982) (opinion written by Justice R. Posner).
46 911 F.2d 970 (4th Cir. 1990).
47 Id. at 978.
48 At the time of this decision, the duration of copyright protection for works made for hire was 75 years from the date of publication or 100 years from the date of creation, whichever expired first.
then, one lesson from *Lasercomb* is that noncompete provisions may not be the safest course to take to protect trade secrets.

An effective alternative would be to have a contract provision stating that any competing product made or sold by the licensee will be presumed to contain trade secrets obtained from the licensed product. This provision, which shifts the burden to the licensee to prove independent development, should be effective in deterring trade secret abuses without having the appearance of overreaching.

The length of the agreements also disturbed the court, especially since the noncompete restrictions potentially lasted longer than the copyright in the program. As with patents, one does not need to refer to antitrust or competition to criticize those who attempt to extend copyright protection beyond the statutory term. This aspect, too, certainly contributed to the finding of copyright misuse. Therefore, although copyright misuse apparently has viability, one should not overreact, as some have, from its appearance in this case. Maintaining prudent trade secret protection procedures, along with keeping a watchful eye on how courts treat future cases, seems to be the best approach.

**CONCLUSION**

Antitrust is fascinating because it provides a remarkable snapshot that reveals the public’s current disposition regarding the legitimacy of business behavior. When regulatory agencies take an aggressive antitrust posture that is supported by statutes and court decisions, then one can surmise that the public has become dissatisfied with certain dimensions of business ethics. On the other hand, when the antitrust enforcers take a hands-off approach without reproach from Congress or the judiciary, then the public likely is content that business is appropriately meeting its obligations. It appears that at the moment, we find ourselves at this latter end of the spectrum, signifying a remarkable level of trust in the ability of markets to police business behavior. It would be naïve to believe that this scenario will not someday change; it always has in the past, and surely will again. Since technology firms typically are on the cutting edge of forces that necessitate social change, they must always be mindful that their actions might create public reactions. We have already found this to be true with so many other types of issues, such as privacy, biotechnology, and copyright infringement. Antitrust certainly is no exception. Therefore, businesses operating in the technological environment need to keep their eyes on the forces underlying antitrust policy—not only because, practically speaking, they may affect basic operations, but also because they provide a strong indication of how the public judges the legitimacy of recent trends and practices.