

The Monopolization Offense*

HERBERT HOVENKAMP**

I. DEFINING THE OFFENSE

For more than a century the Sherman Antitrust Act has condemned “[e]very person who shall monopolize, or attempt to monopolize” some portion of United States commerce.¹ But the statute gives no explanation of what it means to “monopolize” and provides no glossary of terms. The history of the term “monopoly” prior to 1890, when the Sherman Act was passed, indicates that most people understood “monopoly” to mean a grant of exclusive privileges from the government, such as the exclusive right to process meat in the famous *Slaughter-House Cases*,² or the exclusive state grants of routes to steamboat companies that were responsible for some of our most important commerce clause decisions.³

But the legislative history of the Sherman Act shows virtually no concern at all for monopolies created by government grant. Rather, Congress was concerned with large firms who acquired their dominant positions without the explicit aid of government intervention. Further, the legislative history of the antitrust laws provides almost no enlightenment about what it means “to monopolize” a part of commerce. Senator John E. Kenna of West Virginia, one of the opponents, objected that the plain language of the statute would condemn one “who happens by his skill and energy to command an innocent and legitimate monopoly of a

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** Ben V. & Dorothy Willie Professor of Law and History, University of Iowa.

¹ 15 U.S.C. § 2 (1994).

² *Slaughter-House Cases*, 83 U.S. (16 Wall.) 36, 80–81 (1873).

³ *E.g.*, *Cooley v. Bd. of Wardens*, 53 U.S. (12 How.) 299 (1851); *Gibbons v. Ogden*, 22 U.S. (9 Wheat) 1 (1824). Equally important were cases involving explicit or allegedly implicit monopoly grants to toll bridges and railroads. *See, e.g.*, *Charles River Bridge v. Warren Bridge*, 36 U.S. (11 Pet.) 420 (1837) (refusing to imply monopoly grant in bridge charter); *see also Boston & Lowell R.R. Corp. v. Salem & Lowell R.R. Co.*, 68 Mass. (2 Gray) 1 (1854) (construing monopoly provision in railroad charter); *Town of East Hartford v. Hartford Bridge Co.*, 17 Conn. 78 (1845) (same, toll bridge); *Piscataqua Bridge v. N.H. Bridge*, 7 N.H. 35 (1834) (same). On these early monopoly grants, see HERBERT HOVENKAMP, *ENTERPRISE AND AMERICAN LAW, 1836–1937*, ch.2, at 17–35 (1991).

business.”⁴ But Senator George Hoar from Massachusetts, one of the principal drafters of the legislation, disagreed. He stated that the statute prohibited only “the sole engrossing to a man’s self by means which prevent other men from engaging in fair competition with him.”⁵ As Senator Hoar then explained, one “who merely by superior skill and intelligence . . . got the whole business because nobody could do it as well as he could was not a monopolist.”⁶ Rather, monopolization involves “something like the use of means which made it impossible for other persons to engage in fair competition.”⁷ Senator John Sherman himself qualified the language by saying:

I admit that it is difficult to define in legal language the precise line between lawful and unlawful combinations. This must be left for the courts to determine in each particular case. All that we, as lawmakers, can do is to declare general principles, and we can be assured that the courts will apply them so as to carry out the meaning of the law, as the courts of England and the United States have done for centuries.⁸

Nothing in the debates of the Sherman Act’s framers enlightens us further. Section 2 of the Sherman Act created a new federal offense but provided only the vaguest guidelines as to its meaning or the particular acts that would constitute a violation. The only thing that seems clear is that the monopolizing offense refers to someone who acquires or attempts to acquire all of the business in the market, and that this acquisition could not be the result of superior skill or industry. Rather, monopolization involved the use of unfair means that made it impossible for others in the market to compete effectively. On this unilluminating legislative history the United States policy against monopolization was born.

Today it seems clear that unlawful monopolization under section 2 of the Sherman Act requires both power, or domination of a market, and “exclusionary” or anticompetitive conduct. But the characteristics of the undesirable conduct must be defined, and the remedy may depend on both the degree and nature of the power and the nature and effects of the conduct.

Indeed, the abiding problem of antitrust’s monopolization offense has been identifying the types of conduct that the law should condemn, given that the statute condemns nothing explicitly but the undefined act of “monopolization.” Courts often describe the conduct as “exclusionary,” but that term also says very little. It can refer to both anticompetitive conduct and conduct that is procompetitive, like charging a low but profitable price, which excludes rivals

⁴ 21 CONG. REC. 3151 (1890).

⁵ *Id.* at 3152.

⁶ *Id.*

⁷ *Id.*

⁸ 21 CONG. REC. 2460 (1890).

who have higher costs; or innovating a more desirable variation, which excludes those who cannot match the innovator's skill. Further, the type of conduct that has been condemned as monopolization has tended to be nonrepetitive and specific to the industry. Strategies that work in one market simply have no application in another.

If antitrust is to further rather than retard the goal of consumer welfare, the concept of monopolistic conduct must be narrowed so as to refer to conduct that is reasonably calculated to reduce competition in the market and without significant, offsetting social benefits. A *sine qua non* for such conduct is that it must be reasonably capable of making some contribution to monopoly—that is, either to creating monopoly power or else of prolonging or enlarging monopoly power that already exists. Since monopoly involves increasing one's own market share at the expense of rivals, this in turn requires that the conduct impair the opportunities of rivals or potential rivals. If the conduct does not impair rivals' opportunities, then it is not "exclusionary" in any sense of the word.

At the same time, however, not all conduct that injures the opportunities of rivals constitutes monopolization. For example, unmatched innovation may injure rivals so severely that they are forced to exit from the market, but we would hardly want an antitrust policy that condemns innovation itself as unlawful exclusion. So we must add an additional qualifier, such as this: unlawful monopolization is conduct that (1) is reasonably capable of creating, enlarging or prolonging monopoly power by impairing the opportunities of rivals, and (2) is not reasonably necessary to achieve any consumer gains that the conduct promises.⁹ This definition is objective and does not depend on the defendant's purpose or intent.¹⁰

Historically, intent was thought to play a major role in defining the monopolization offense and helped distinguish harmful from beneficial exclusionary practices. Many decisions employed terms such as "purpose,"

⁹ For an alternative definition, see Franklin M. Fisher, *The IBM and Microsoft Cases: What's the Difference?*, 90 AM. ECON. REV. 180, 180 (2000): "An anticompetitive act by a single firm is one that is not profit-maximizing without the monopoly rents that it creates or maintains but is profit-maximizing with those rents included." Problematically, innovation may fall within Mr. Fisher's definition—that is, at least some acts of innovation are profitable only because of the future stream of monopoly rents that the innovation is expected to produce.

¹⁰ Even the term "exclusionary" does not accurately capture all kinds of forbidden conduct. Some practices, such as mergers, are monopolistic because they are inherently "collusive" rather than exclusionary—that is, rather than excluding rivals the monopolist takes control of them and is thus able to reduce marketwide output. Indeed, a general policy of buying up rivals at profitable prices tends to encourage rather than discourage new entry. We condemn such a practice not because it is exclusionary but because it deprives consumers of the benefits of competition in the market into which this entry has occurred. See 3 PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW, ch.7A, ¶¶ 701–703 (rev. ed. 1996).

“intent,” or “willfulness.” For example, in the 1911 decision condemning Standard Oil,¹¹ Chief Justice White noted the defendant’s anticompetitive behavior but felt compelled to speak of intent. He spoke of the defendant’s actions as giving rise “to the *prima facie* presumption of intent and purpose to maintain the dominancy over the oil industry, not as a result of normal methods of industrial development, but by new means of combination . . . with the purpose of excluding others.”¹²

Note, however, that while this language spoke of intent, in fact the Court was doing no more than inferring the intent from the conduct itself. In that case the inference of legality was based strictly on conduct, and intent could be dropped from the equation. Judge Hand spoke more forthrightly in the 1945 monopolization case against Alcoa, where he purported to disregard any question of “intent.”¹³ Every monopolist, he opined, is conscious of what it is doing. Thus, the effects can be inferred from the conduct itself.¹⁴

But in its 1966 *Grinnell* decision the Court concluded that:

The offense of monopoly . . . has two elements: (1) the possession of monopoly power in the relevant market and (2) the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident.¹⁵

These formulations are at best not helpful and at worst misleading. To be sure, in some cases the defendant’s “purpose or intent” may be enlightening. As

¹¹ Standard Oil Co. v. United States, 221 U.S. 1 (1911).

¹² *Id.* at 75.

¹³ United States v. Aluminum Co. of Am. (Alcoa), 148 F.2d 416, 431 (2nd Cir. 1945).

¹⁴ *Id.* at 431–32. See also Am. Tobacco Co. v. United States, 328 U.S. 781, 814 (1946) (endorsing *Alcoa*’s approach). In *United States v. Griffith*, 334 U.S. 100, 105 (1948), the Supreme Court appeared to find specific intent necessary only in attempt cases:

It is . . . not always necessary to find a specific intent to restrain trade or to build a monopoly in order to find that the anti-trust laws have been violated. It is sufficient that a restraint of trade or monopoly results as the consequence of a defendant’s conduct or business arrangements. . . . Specific intent in the sense in which the common law used the term is necessary only where the acts fall short of the results condemned by the Act.

At the same time, however, the *Griffith* Court also said, “[T]he existence of power ‘to exclude competition when it is desired to do so’ is itself a violation of § 2, provided it is coupled with the purpose or intent to exercise that power.” *Id.* at 107.

¹⁵ United States v. Grinnell Corp., 384 U.S. 563, 570–71 (1966).

Justice Brandeis once noted, while intent itself rarely determines legality, knowledge of intent may help when the facts are ambiguous.¹⁶

In its more recent *Aspen* case the Supreme Court concluded that “intent is merely relevant to the question whether the challenged conduct is fairly characterized as ‘exclusionary’ or ‘anticompetitive.’”¹⁷

A simple way of stating the matter is that antitrust appraisal of conduct depends in the first instance on an understanding of its likely anticompetitive consequences as well as its possible social benefits. However, often the benefits will not be apparent or persuasive unless the defendant identifies its purpose in so acting, shows the legitimacy of that purpose in terms of antitrust objectives, and suggests that the challenged action is an appropriate and perhaps the least restrictive way of achieving that legitimate purpose. But the critical point is that the nature and consequences of a particular practice are the vital consideration, not the purpose or intent. Qualifying anticompetitive conduct must always be established first by objective facts about the relevant market and the defendant, quite apart from any manifestation of subjective intent.

Further, any competitively energetic firm “intends” to prevail over its actual or potential rivals. The firm which drives out or excludes rivals by selling a superior product or producing at substantially lower costs certainly intends to do so. But so to read “purpose or intent” would be to read the behavior requirement out of the monopolization offense altogether and make monopoly unlawful per se, which the courts clearly have not done. More importantly, it confuses the “intent” to behave competitively with the intent to monopolize.

Indeed, in most circumstances involving monopoly, the “intent” to create a monopoly anticompetitively cannot be distinguished from the intent to do so competitively. In a perfectly competitive market each firm “intends” to maximize its own profits and is completely unconcerned about responses from rivals. In that case it is quite meaningful to speak of a firm as “intending” to increase its own profits, but not as “intending” to harm any particular rival. But in the concentrated markets in which plausible monopolization claims are made, firms cannot act rationally without considering the effects on and responses of particular rivals. For example, the dominant firm that cuts price in order to

¹⁶ See *Bd. of Trade v. United States*, 246 U.S. 231, 238 (1918):

[T]he reason for adopting the particular remedy [and] the purpose or end sought to be attained . . . are all relevant facts. This is not because a good intention will save an otherwise objectionable regulation or the reverse; but because knowledge of intent may help the court to interpret facts and to predict consequences.

Id. See also *Taylor Pub. Co. v. Jostens, Inc.*, 216 F.3d 465, 475 n.2 (5th Cir. 2000) (stating that “intent retains its customary role as an aid in characterizing ambiguous conduct,” citing 3A PHILIP E. AREEDA & HERBERT HOVENKAMP, *ANTITRUST LAW*, ¶ 806e, at 336–39 (1996)).

¹⁷ *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585, 602 (1985).

increase its own sales undoubtedly knows, and thus “intends,”¹⁸ that the result will be increased pressure on rivals, declining sales, or perhaps even their exit from the market. In concentrated markets the “intent” to increase one’s own sales invariably reduces to the “intent” to take sales from rivals. In that case spending judicial resources into such queries as whether the price cutter “intended” to harm its rivals is pointless and silly.¹⁹ On the one hand, it could not have intended otherwise. On the other hand, it profits from the increase in its own sales, not from the destruction of rivals.

With the intent issue settled, the first step in defining “exclusionary” conduct is to state what it is not. Our concern about monopoly and the opportunities of rivals should not obscure the objective of antitrust law which seeks to protect the process of competition on the merits and the beneficial results associated with it. Accordingly, aggressive but non-predatory pricing, higher output, improved product quality, energetic market penetration, successful research and development, cost-reducing innovations, and the like are welcomed by the Sherman Act. They are therefore not unlawful under section 2 even though they tend to exclude rivals and may even create a monopoly.²⁰

¹⁸ The common law often infers intent from knowledge. *See, e.g.*, RESTATEMENT (SECOND) OF TORTS § 825 (1977) (defining an “intentional” invasion of property as occurring when the actor either (a) “acts for the purpose of causing it” or (b) “knows that it is resulting or is substantially certain to result from his conduct”).

¹⁹ Nevertheless, some courts continue to make such distinctions even though they make no sense. *See, e.g., Image Technical Servs., Inc. v. Eastman Kodak Co.*, 125 F.3d 1195 (9th Cir. 1997), *cert. denied*, 523 U.S. 1094 (1998), which concluded that a refusal to license a patent was not a section 2 violation if a firm intended to profit from its intellectual property rights, but would violate section 2 if the firm intended to create a monopoly in a second market. Of course, one maximizes profits in a patent by controlling sales in any market in which that patent has a market value. For example, a firm that made a patented motor good for lawn mowers, snow blowers, and go-karts might make lawn mowers itself and license others to use its motors in snow blowers and go-karts. Or alternatively, it might make all three products itself, refusing to license its motor to anyone. The firm would do whatever maximized its profits from its intellectual property right.

²⁰ Quite unhelpful and even counterproductive is the formulation given in some decisions that a section 2 violation occurs when the monopolist uses its market power to “obtain a competitive advantage” over a rival. Read literally, the “competitive advantage” formulation condemns any attempt by a dominant firm to take advantage of economies unavailable to smaller rivals. The relevant question is not *whether* the monopolist uses its position to obtain a “competitive advantage,” but *how* it does so.

The “competitive advantage” formulation was given in *United States v. Griffith*, 334 U.S. 100, 107 (1948), and broadened in *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 482–83 (1992). *See also* *Poster Exch. Inc. v. Nat’l Screen Serv. Corp.*, 431 F.2d 334, 339 n.13 (5th Cir. 1970) (holding that monopolist’s decision to charge retail prices to competing wholesaler was unlawful if done “to gain a competitive advantage”); *Great W. Directories v. Southwestern Bell Tel.*, 63 F.3d 1378, 1386 (5th Cir. 1995) (apparently

The all important difference between exclusionary conduct that the law abhors and that which it embraces is that the first is thought to harm consumers while the second is thought to benefit them. Monopoly harms consumers by producing higher prices, restricting innovation, or reducing the array of choices that consumers would face under more competitive conditions. Properly defined, monopolizing conduct harms consumers by creating monopoly, increasing its amount, extending its duration, or reducing the quality and variety of innovation. Thus an expectation of consumer harm must always be at the logical end of any determination that particular conduct satisfies section 2's conduct requirement.

Further, a great deal of strategic behavior is concerned with the "maintenance" rather than the acquisition of monopoly power.²¹ Much monopolistic conduct is rational behavior only on the premise that the firm is already a monopolist, and frequently the conduct is designed not so much to create monopoly in a secondary market as to maintain the dominant firm's position in the primary market. A good example is the *Microsoft* litigation.²² A nondominant seller of computer operating systems would have every incentive to maximize compatibility with other types of software, such as internet browsers or word processors, even if it sold these applications itself. After all, it would be competing in the market with sellers of other operating systems, and customer choice would be heavily driven by compatibility concerns. But a market dominating seller of operating systems stands in a very different position: by

approving the *Poster Exchange* formulation).

²¹ For example, the Supreme Court's *Grinnell* decision spoke of the offense as "the willful acquisition or maintenance of [monopoly] power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident." *United States v. Grinnell Corp.*, 384 U.S. 563, 570-71 (1966) (emphasis added). See also *Aspen Skiing*, 472 U.S. at 602 (speaking of the "purpose to create or maintain a monopoly," quoting *United States v. Colgate & Co.*, 250 U.S. 300, 307 (1919)). These formulations are widely quoted or paraphrased. See, e.g., *Kodak*, 504 U.S. at 483 (holding section 2 violated by willful actions designed to maintain defendant's monopoly position when not supported by valid business justifications); *Christianson v. Colt Indus.*, 486 U.S. 800, 810 (1988) (holding section 2 violated by willful maintenance of monopoly power as opposed to growth or development that results from a superior product, business acumen, or historic accident); *Hanover Shoe v. United Shoe Mach. Corp.*, 392 U.S. 481, 486 (1968) (noting and approving lower court's conclusion that restrictive lease policies were designed to maintain defendant's monopoly); *C.R. Bard, Inc. v. M3 Sys., Inc.*, 157 F.3d 1340, 1371 (Fed. Cir. 1998), cert. denied, 526 U.S. 1131 (1999) (similar).

²² For the first round of litigation, see *United States v. Microsoft Corp.*, 1995 WL 505998 (D.D.C., Aug. 21, 1995) (consent decree), interpreted by *United States v. Microsoft Corp.*, 147 F.3d 935 (D.C. Cir. 1998). The second round included *United States v. Microsoft Corp.*, 65 F. Supp. 2d 1 (D.D.C. 1999) (findings of fact); and *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 (D.D.C. 2000) (conclusions of law).

limiting compatibility with rivals' software applications it can force buyers to switch to its own applications.

The same phenomenon explains why the antitrust consent decree that broke up the telephone company²³ separated local telephone service from long distance, and why the FCC acting under the 1996 Telecommunications Act²⁴ has been slow to permit the local operating companies to enter into long distance markets until there is genuine local market competition. As long as those companies hold dominant positions in the local market, they have every incentive to degrade the long distance systems of rivals in order to switch customers to their own long distance offerings. By contrast, once meaningful competition exists in local service, each local firm will profit only by maximizing its compatibility with long distance providers.

At this point we can define unlawful monopolistic conduct as acts that (1) are reasonably capable of creating, enlarging or prolonging monopoly power by impairing the opportunities of rivals; and (2) either: (a) do not benefit consumers at all, or (b) are unnecessary for the particular consumer benefits that the acts produce, or produce harms that are out of reasonable proportion to the resulting benefits.²⁵

²³ *United States v. AT&T*, 552 F.Supp. 131 (D.D.C. 1982), *aff'd mem. sub. nom.*, *Maryland v. United States*, 460 U.S. 1001 (1983).

²⁴ Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56, (codified in scattered sections of 47 U.S.C.).

²⁵ Compare the formulation contained in a jury instruction in the *Aspen* case, which the Supreme Court approved: exclusionary conduct by a dominant firm is unlawful when it "unnecessarily excludes or handicaps competitors." *Aspen Skiing*, 472 U.S. at 597. This includes "conduct which does not benefit consumers by making a better product or service available—or in other ways—and instead has the effect of impairing competition." *Id.* See also, e.g., *Advanced Health-Care Servs. Inc. v. Radford Community Hosp.*, 910 F.2d 139, 148 (4th Cir. 1990); *Instructional Sys. Dev. Corp. v. Aetna Cas. & Sur. Co.*, 817 F.2d 639, 649 (10th Cir. 1987). The courts often say that such conduct lacks a "legitimate business purpose." *Aspen Skiing*, 472 U.S. at 597; *General Indus. Corp. v. Hartz Mountain Corp.*, 810 F.2d 795, 804 (8th Cir. 1987) (equating conduct "without a legitimate business purpose" with conduct "that makes sense only because it eliminates competition"). Other courts sometimes distinguish conduct that merely injures competitors from conduct that harms the "competitive process." *Town of Concord v. Boston Edison Co.*, 915 F.2d 17, 21 (1st Cir. 1990), *cert. denied*, 499 U.S. 931 (1991).

See also *Taylor Pub. Co. v. Jostens, Inc.*, 216 F.3d 465, 475–76 (5th Cir. 2000) (adopting definition from 3 PHILLIP E. AREEDA & HERBERT HOVENKAMP, *ANTITRUST LAW*, ¶ 651 (1996)); *Multistate Legal Studies v. Harcourt Brace Jovanovich*, 63 F.3d 1540, 1550 (10th Cir. 1995). The court in *Multistate Legal Studies* held that conduct is not unlawful unless it lacks a "legitimate business justification." Defendant offered both a general bar review course, in which it had a dominant position, and a complementary professional responsibility course, while the plaintiff offered only the latter. The court denied summary judgment on evidence that

As noted before, the end result of monopolization analysis must be the identification of conduct that is likely to cause consumer harm. However, showing the likelihood of consumer harm is not the same thing as showing that consumer harm has in fact resulted. This is clearest in the case of the government suit. The government generally sues to “enforce” the antitrust laws, not to obtain recompense for completed harms. The social cost of any harmful practice is minimized when the practice is apprehended in an early stage or before it even occurs. Clearly the government must show that a certain instance of conduct is likely to cause consumer harm in the form of increased or prolonged monopoly, and that this conduct is not accompanied by an offsetting social benefit. But to delay suit until consumer harm has actually occurred would be to increase the social cost of monopoly unnecessarily. The proviso, of course, is that it is often more difficult to identify conduct as anticompetitive when the results have not yet occurred.

The private plaintiff seeking only an injunction is in a roughly analogous position. The statutory provision authorizing private suits in equity requires only that consumer harm be “threatened,” not that it actually occurred.²⁶ By contrast, private plaintiffs who seek damages must show actual harm. Competitors must show actual harm both to themselves and to the ordinary market processes that could otherwise be expected to produce or maintain competition. Consumers must generally show actual harm in the form of higher prices or reduced innovation.

This difference between governments and private persons is hardly unique to antitrust law. For example, while the private plaintiff may sue the drunken driver only for a completed wrong, such as a wrongful death or property damage, the government may arrest and condemn the drunken driver who has not yet caused harm to anyone. When the government is acting as enforcer, the important point is that drunken driving is highly likely to cause social harm and it is less costly to arrest such a driver before rather than after that harm occurs.

Consider three different types of practices that have helped to define the law of monopolization in the last decade.²⁷ The first is the great expansion since the

the defendant intentionally scheduled sessions of its general bar review course so as to conflict with the only times that the plaintiff's professional responsibility course could be offered, thus forcing students to take the defendant's professional responsibility course. *Id.*

²⁶ 15 U.S.C. § 26 (1994) (“Any person, firm, corporation, or association shall be entitled to sue for and have injunctive relief . . . against threatened loss or damage by a violation of the antitrust laws . . .”).

²⁷ Other practices include misuse of government processes, such as fraudulent lawsuits by dominant firms in order to exclude rivals; predatory pricing; and a variety of “dirty tricks” and miscellaneous practices. On misuse of government process, see 3 PHILIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW, ¶¶ 201–212 (2d ed. 2000); on predatory pricing, see 3 PHILIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW, ch.7C (rev. ed. 1996); on

1980s of the notion that a dominant firm has a duty to deal with its rivals. The second is the idea that certain types of innovation can be “predatory,” and thus unlawful. The third is the strategic use of various contracting or licensing practices, which characterizes most of the claims in the *Microsoft* case.

II. UNILATERAL REFUSAL TO DEAL

In its two most recent decisions interpreting section 2 of the Sherman Act, the Supreme Court permitted a broad expansion of the dominant firm’s duty to cooperate with or sell to one or more of its rivals. The 1985 *Aspen Skiing* case approved a jury’s verdict that a market dominating skiing company violated section 2 when it pulled out of a joint marketing venture with its only rival without offering an adequate business justification.²⁸ Then, in its 1992 *Kodak* decision the Court indicated that a photocopier manufacturer that had a dominant position in its own aftermarket parts could violate the Sherman Act by refusing to sell those parts to rival firms that wished to repair the defendant’s copiers.²⁹

The implications of these decisions are problematic to say the least. As an abstract proposition, consumers might be better off if the monopolist could be forced to deal with rivals at a competitive price. But in that case a court would have to determine not only the scope of the duty to deal, but also the price. Even monopolists are not public utilities, however, and antitrust courts are not public utility agencies. Further, and as a matter of principle, public utility style price regulation is not the antitrust solution to a failure of competition. But even then an antitrust order to deal creates a perverse incentive that runs counter to the entire principle of the antitrust laws that where the government has not prescribed regulation, competition is to be the norm. The perverse incentive is that once rivals are entitled to treat Kodak’s parts warehouse as a public utility they have no incentive to find or develop alternative sources for these parts. The antitrust solution to any problem of locating goods is not a giant, price-regulated warehouse. Rather, the antitrust solution is alternative sources in competition with each other. If the antitrust solution does not work, an antitrust tribunal should not turn a firm into a price regulated utility under the guise of applying the antitrust laws.

There does not seem to be any good way out of these problems, and the courts have generally responded by construing the *Aspen* and *Kodak* cases

“dirty tricks” and business torts, see 3A PHILIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW, ¶¶ 780, 782 (rev. ed. 1996).

²⁸ *Aspen Skiing*, 472 U.S. at 597.

²⁹ *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451 (1992). On remand the Ninth Circuit found a section 2 violation. *Image Technical Services, Inc. v. Eastman Kodak Co.*, 125 F.3d 1195 (9th Cir. 1997), *cert. denied*, 523 U.S. 1094 (1998).

narrowly.³⁰ Antitrust should never intervene in a market unless it can provide an incentive toward competition, whether that be a disincentive toward engaging in an anticompetitive conduct or a solution that restores workable competition. The *Aspen* and *Kodak* line of cases have not been able to meet this test.

III. PREDATORY INNOVATION

Innovations by dominant firms are rarely section 2 violations, even though successful innovations injure competitors and many have the effect of creating or expanding monopoly power. Our market system simply places too high a premium on innovation, and the economic literature generally agrees that the gains from innovation can be significantly greater than the gains from increased competitiveness.³¹ So an act of innovation should never be condemned under section 2 unless it is some kind of “sham.” In this case, the sham would be an innovation that in fact does not benefit consumers at all, but is profitable only because it locks consumers into the dominant firm’s technology.

Consider, for example, the case of C.R. Bard, which was found to have a monopoly position in a patented “gun” for taking tissue samples from patients.³² While the gun itself was durable hardware, it used disposable, one-use needles, and these were originally supplied by both Bard and others, including the plaintiff. Bard then modified the gun so that it would take only proprietary

³⁰ On *Aspen*, see *SmileCare Dental Group v. Delta Dental Plan*, 88 F.3d 780 (9th Cir. 1996), *cert. denied*, 519 U.S. 1028 (1996) (limiting *Aspen* to refusal to continue in previously created joint venture, but rejecting application of it to refusal to enter into a new venture that the plaintiff wished to create). On *Kodak*, see, e.g., *SMS Sys. Maint. Servs. v. Digital Equip. Corp.*, 188 F.3d 11 (1st Cir. 1999), *cert. denied*, 120 S.Ct. 1241 (2000) (finding no Kodak style lock-in where defendant bundled computers with a three-year warranty, thus excluding independent service organization, for consumers knew about the warranty at the time they purchased their computer); *PSI Repair Servs., Inc. v. Honeywell, Inc.*, 104 F.3d 811 (6th Cir. 1997) (no Kodak-style lock-in unless defendant changed its parts policy after the relevant purchasers bought their copiers; otherwise they would presumably have known about the policy when they made their purchase); *Digital Equip. Corp. v. Uniq Digital Tech., Inc.*, 73 F.3d 756, 763 (7th Cir. 1996) (similar); *Lee v. Life Ins. Co. of N. Am.*, 23 F.3d 14 (1st Cir. 1994) (similar); *Metzler v. Bear Auto. Serv. Equip. Co.*, 19 F. Supp. 2d 1345 (S.D. Fla. 1998) (similar).

³¹ The classic works are JOSEPH A. SCHUMPETER, *CAPITALISM, SOCIALISM AND DEMOCRACY* (1942) (especially chapter 8), and Robert M. Solow, *Technical Change and the Aggregate Production Function*, 39 REV. ECON. & STAT. 312 (1957). See also F.M. SCHERER & D. ROSS, *INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE* 613–14 (3d ed. 1990); F.M. SCHERER, *INNOVATION AND GROWTH: SCHUMPETERIAN PERSPECTIVES* (1984). Other literature is summarized in 13 HERBERT HOVENKAMP, *ANTITRUST LAW* ¶ 2115 (1999).

³² *C.R. Bard, Inc. v. M3 Sys., Inc.*, 157 F.3d 1340, 1379 (Fed. Cir. 1998), *cert. denied*, 526 U.S. 1131 (1999).

needles manufactured by Bard. This exclusion of rival needle makers was the basis of the section 2 claim, in which a divided panel of the Federal Circuit affirmed liability.

Observe that a *nondominant* maker of biopsy guns would have no incentive to make a gun incompatible with others' needles unless the gun/needle combination were a significant improvement over prior technology. The nondominant firm maximizes its profits, *ceteris paribus*, by maximizing compatibility. As a result, a finding of strong dominance of a properly defined relevant market is essential.

Secondly, both the patent laws and the general policy of the antitrust laws would permit Bard to innovate to make a better gun, even if the result were a redesigned needle that was incompatible with the needles of rivals. Further, innovation is risky and undertaken under great uncertainty. Many planned innovations do not meet with market success. As a result, one cannot view the innovation from after the fact and proclaim it is not an improvement and therefore that it is anticompetitive. The real question is what the innovator had in mind. If Bard's intent was to develop a superior gun, but this required a unique needle, then Bard should not be penalized because its new gun/needle combination ended up working no better (or only a little better) than the old combination did.

Formulating an administrable test that takes these competing considerations into account is difficult. On the one hand, we do not want to hamper the monopolist's ability to innovate, even if the result is exclusion of competitors. On the other hand, the record of strategic behavior by dominant firms makes clear that dominant firms often select technologies or other methods of doing business simply because of the adverse impact on rivals.

The correct rule should be this one. *First*, as noted above, the defendant must have a very dominant position in its market, sufficient to warrant an inference of serious injury if the firm designs a product that excludes the complementary products of rivals. In most cases the defendant would have to have a market share of at least seventy or eighty percent. *Second*, any significant actual improvement for which the challenged innovation is necessary should result in dismissal of the antitrust complaint. The federal courts are simply not up to the job of balancing the gains from innovation against the losses from reduced competition. *Third*, once the tribunal finds that the redesigned product is not an improvement, then it becomes proper to probe the defendant's pre-innovation intentions: did it really set out to build a better product, or did it redesign only in order to exclude a rival?

IV. EXCLUSIONARY CONTRACTING AND *MICROSOFT*

While the *Microsoft* decision has been widely portrayed in the media as an example of the “new” antitrust, or of pushing the antitrust laws to their limits, in fact the case is quite old fashioned in two different senses. First, there is little dispute about Microsoft’s significant and durable market power. The *Microsoft* case clearly did not push the monopoly power requirement to its limits, as many other recent monopolization cases have.³³ Second, the practices challenged by the federal government and the states are of a kind that have been condemned by the antitrust laws for generations. So while Microsoft involves a relatively new technology and market, it very largely applies the most orthodox of antitrust principles.

Briefly, the current round of *Microsoft* litigation tells this story. Computer operating systems are products that enjoy very significant positive network effects. This is simply a way of saying that they become more valuable to a particular user as the system has a larger number of other users. The classic example of network effects is the telephone system. Even the highest tech telephone is next to worthless as long as it cannot be connected to anyone else. As soon as the phone can be connected to at least one other subscriber it acquires value, and the value to each user increases as the number of other subscribers increases. A system with a large number of subscribers is always more desirable to a new subscriber than a system with few subscribers, assuming that the two systems are incompatible with each other.

The sources of network effects for Microsoft Windows are mainly users’ needs for compatibility and interchange with other users, and software developers’ need to develop for a large number of users. An operating system with a large installed base will always be more attractive to both users and software developers than an equally good or even superior operating system with a smaller installed base.

Netscape and Sun Microsystem’s Java programming language threatened to take out Microsoft’s advantage by interconnecting multiple operating systems with each other, thus eliminating this network advantage. A good way to think of the problem is to imagine a country with two telephone systems that cannot be connected together. One system has older technology but has been around longer and has one million subscribers. The newer system has superior technology but only one thousand subscribers. Notwithstanding its inferior technology, the large

³³ Indeed, Justice Jackson found that Microsoft had a ninety-five-plus percent share of a well defined relevant market; that it had held a share in that range for roughly a decade; and that its share was increasing. See *United States v. Microsoft Corp.*, 35 F.Supp. 1, 10 (D.D.C. 1999) (fact finding #35).

installed base gives the older firm a very significant advantage over the new firm, because consumers value interconnection with as many other people as possible.

But now suppose that someone develops a switch that enables the two systems to be connected together, so that a subscriber to one system can readily talk to people on the other system, and vice versa. The network advantages have now been aggregated across the two systems; or to say it another way, there is no unique advantage to being on one system or the other. Now consumers will be able to choose a telephone on the basis of factors such as technology, price, or service.

Netscape, enhanced by Java, threatened to produce the “switch” that would connect multiple operating systems, thus destroying Microsoft’s significant network advantage over rival systems and permitting people to base their purchasing decisions on factors such as price or quality. In particular, Java’s “write once, run anywhere”³⁴ strategy threatened to make different operating systems completely compatible on both the user end and the software-writing end. The result would be the emergence of a traditional competitive market in which one could choose a Microsoft or a non-Microsoft operating system based entirely on price, features, speed, support, and so on. Compatibility with other users would not be a factor.

The theory of the *Microsoft* case is that Microsoft did everything in its power to keep this switch from being deployed, and thus to preserve the inability of the different systems to become interconnected. First, it asked Netscape to divide the browser market, with Netscape taking all non-Windows computers and Microsoft taking all Windows-based computers. When Netscape rejected that offer, which probably would have constituted a criminal offense had it been accepted,³⁵ Microsoft did everything it could to restrict the distribution of Netscape and the functionality of Java. With respect to Netscape, Microsoft successfully coerced most computer manufacturers into favoring its own Internet Explorer browser software to the point that Netscape distribution was largely relegated to inferior and more costly modes of distribution. As to Java, Microsoft licensed Java for bundling into its own platform, but then made alterations in the program that created incompatibilities with non-Windows platforms. This threatened to undermine Java’s promise of a computer language that would run

³⁴ *United States v. Microsoft Corp.*, 65 F.Supp.2d 1, 20–21 (D.D.C. 1999) (findings of fact 74–77).

³⁵ Naked market division is a criminal antitrust offense under section 1 of the Sherman Act. See 12 HERBERT HOVENKAMP, ANTITRUST LAW, ¶¶ 2030–2031 (1999). However, the offense requires an agreement; thus there could be no criminal liability unless Netscape had said yes. See PHILIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW, ¶ 1419.1 (2000 Supp.).

across all platforms. In sum, Microsoft took every measure it could to insure that Microsoft Windows would remain incompatible with other operating platforms. From that point the Microsoft story is rather old fashioned. Not a single allegation in the government's complaint is a challenge to Microsoft's innovation practices. Rather the challenged practices included such things as tying or exclusive dealing or contractual terms requiring others to disfavor the systems of rivals. The legal elements of these claims are rather orthodox.

In sum, the *Microsoft* case does not involve any of the aggressive overreaching that characterized previous Supreme Court monopolization decisions. The defendant has undoubted power, and the court is not being asked to order a firm to act for the benefit of its rivals. Rather, it is responding to aggressive practices designed to exclude rivals and injure consumers by denying them the benefits of a more competitive platform, browser, and software market.

V. CONCLUSION

Antitrust is a form of government intervention in the market, and our capitalistic system places a great deal of faith in markets. Perhaps unfortunately, nothing in the monopolization statute defines precisely, or even generally, when government intervention is necessary. Given this lack of a statutory definition and our underlying commitment to markets, one must conclude that antitrust intervention is appropriate only when we can have some confidence that intervention will make a particular market work better. Further, the improvements have to be sufficient to justify the expenses and uncertainty costs that accompany intervention, and these can be substantial. Finally, monopolistic conduct comes in unlimited varieties, many of which cannot even be anticipated until the technology that makes them possible has been developed. This gives the judge the unusually difficult task of applying extremely open-ended statutory language to an exceptionally open-ended set of circumstances. As a result, about the best we can do is define monopolization at a high level of generality and hope that our federal tribunals are both undaunted and circumspect.

