

University of Pennsylvania Carey Law School

## Penn Carey Law: Legal Scholarship Repository

---

All Faculty Scholarship

Faculty Works

---

1-1-2005

### Exclusion and the Sherman Act

Herbert Hovenkamp

*University of Pennsylvania Carey Law School*

Author ORCID Identifier:

 [Herbert Hovenkamp 0000-0002-4583-5162](https://orcid.org/0000-0002-4583-5162)

Follow this and additional works at: [https://scholarship.law.upenn.edu/faculty\\_scholarship](https://scholarship.law.upenn.edu/faculty_scholarship)

---

#### Recommended Citation

72 Univ. Chicago L.Rev. 147 (2005)

This Article is brought to you for free and open access by the Faculty Works at Penn Carey Law: Legal Scholarship Repository. It has been accepted for inclusion in All Faculty Scholarship by an authorized administrator of Penn Carey Law: Legal Scholarship Repository. For more information, please contact [PennlawIR@law.upenn.edu](mailto:PennlawIR@law.upenn.edu).

# Exclusion and the Sherman Act

Herbert Hovenkamp†

Both § 1 and § 2 of the Sherman Act prohibit anticompetitive exclusion from markets. Section 2 condemns the exclusionary practices of a single firm.<sup>1</sup> Section 1 condemns exclusionary conduct under the rubric of boycotts or concerted refusals to deal, including predatory acts against the rivals of a cartel or joint venture,<sup>2</sup> as well as tying and exclusive dealing.<sup>3</sup> Notwithstanding a century of litigation,<sup>4</sup> the scope

---

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

<sup>1</sup> 15 USC § 2 (2000) (“Every person who shall monopolize, or attempt to monopolize . . . shall be deemed guilty of a felony.”). See also *Verizon Communications Inc v Law Offices of Curtis V. Trinko, LLP*, 540 US 398, 405–11 (2004) (discussing § 2 liability for a firm’s refusal to deal with competitors); *United States v Microsoft Corp*, 253 F3d 34, 49–50 (DC Cir 2001) (discussing § 2 enforcement against single firms in technologically dynamic markets).

<sup>2</sup> 15 USC § 1 (2000) (“Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce . . . is declared to be illegal.”). See also *Hartford Fire Insurance Co v California*, 509 US 764 (1993) (affirming as valid a § 1 claim for conspiracy to affect the American insurance markets); *Matsushita Electric Industrial Co v Zenith Radio Corp*, 475 US 574, 588 (1986) (“[A] plaintiff seeking damages for a violation of § 1 must present evidence ‘that tends to exclude the possibility’ that the alleged conspirators acted independently.”), quoting *Monsanto Co v Spray-Rite Service Corp*, 465 US 752, 764 (1984) (holding that an inference of concerted action based solely on the receipt of complaints was insufficient to prove that the manufacturer and nonterminated distributors were acting in concert); *Fashion Originators’ Guild of America, Inc v FTC*, 312 US 457, 465 (1941) (“Under the Sherman Act, ‘competition not combination, should be the law of trade.’”); *JTC Petroleum Co v Piasa Motor Fuels, Inc*, 190 F3d 775 (7th Cir 1999) (holding that summary judgment against the plaintiff was precluded by the question of fact as to whether the defendants enlisted producers of emulsified asphalt to police their cartel by refusing to sell to the plaintiff); *Wilk v American Medical Association*, 895 F2d 352 (7th Cir 1990) (affirming a grant of injunctive relief where defendant medical association conspired, through encouraging a boycott, to eliminate plaintiff chiropractors’ profession).

<sup>3</sup> See, for example, *Jefferson Parish Hospital District No 2 v Hyde*, 466 US 2, 14 (1984) (condemning the use of tying per se as it can “force a purchaser to do something that he would not do in a competitive market”); *Continental T.V., Inc v GTE Sylvania Inc*, 433 US 36 (1977) (discussing the proper standard for evaluating exclusive dealing arrangements under § 1).

<sup>4</sup> The first Supreme Court decision involving multilateral exclusionary conduct was *Montague & Co v Lowry*, 193 US 38 (1904), which condemned an agreement by an association of tile dealers not to purchase tile from manufacturers who were not members of the association and which required participating manufacturers to sell tile to nonmember dealers only at full list price. The tile dealers were probably colluding, and using pressure on the manufacturers to raise the costs of rival tile dealers.

Identifying the first Supreme Court decision involving unilateral exclusionary conduct is more difficult because nearly all the early cases involved some kind of collaborative behavior. While *Swift and Co v United States*, 196 US 375 (1905), is widely cited for its definition of attempt to monopolize, which is a unilateral offense, the decision in fact involved a cartel of cattle purchasers and dealers. The first Supreme Court decision involving principally allegations of unilateral exclusionary conduct was *American Banana Co v United Fruit Co*, 213 US 347 (1909), in

and meaning of exclusionary conduct under the Sherman Act remain poorly defined. No generalized formulation of unilateral or multilateral exclusionary conduct enjoys anything approaching universal acceptance. About the best antitrust has been able to produce are rules designed for specific classes of cases, such as the cost rules governing predatory pricing,<sup>5</sup> or the simple per se rules applied to naked boycotts.<sup>6</sup>

### I. UNILATERAL EXCLUSIONARY CONDUCT

A workable definition of exclusionary conduct under § 2 of the Sherman Act must satisfy two criteria. First, it must define anticompetitive exclusionary conduct with tolerable accuracy, in particular, without excessive false positives. Second, it must be administrable by a court, perhaps in a jury trial.

The *Antitrust Law* treatise defines exclusionary conduct as acts that:

- (1) are reasonably capable of creating, enlarging or prolonging monopoly power by impairing the opportunities of rivals; and
- (2) that either (2a) do not benefit consumers at all, or (2b) are unnecessary for the particular consumer benefits that the acts produce, or (2c) produce harms disproportionate to the resulting benefits.<sup>7</sup>

To this should be added that the practice must be reasonably susceptible to judicial control, which means that the court must be able to identify the conduct as anticompetitive and either fashion a penalty

---

which the defendant was accused of bribing the government of Costa Rica to interfere with the operations of a railroad that the plaintiff used to ship bananas to the United States. Justice Holmes's opinion refused to apply the Sherman Act extraterritorially, and thus never reached the merits.

The first Supreme Court case that treated unilateral exclusionary conduct on the merits was *Standard Oil Co of New Jersey v United States*, 221 US 1 (1911) (holding that consolidation of a large company with smaller companies, all of which were controlled by the same shareholders, constituted a restraint of trade and an attempt to monopolize). While the decision also applied § 1 of the Sherman Act against a consortium, most of the defendants were members of a single holding company and the others were simply cats' paws of *Standard Oil*. The same thing is true of *United States v American Tobacco Co*, 221 US 106 (1911) (finding that the defendants combined their stock in various companies in such a manner as to restrain trade).

<sup>5</sup> See Phillip E. Areeda and Herbert Hovenkamp, 3 *Antitrust Law: An Analysis of Antitrust Principles and Their Application* ¶ 740 at 423 (Aspen 2d ed 2002) (describing the challenges of using marginal cost to detect predatory pricing).

<sup>6</sup> See, for example, *Fashion Originators' Guild*, 312 US at 467–68 (applying a per se rule in ignoring justifications for garment and textile manufacturers' boycott of retailers who offered for sale copies of dresses). See also Herbert Hovenkamp, 13 *Antitrust Law: An Analysis of Antitrust Principles and Their Application* ¶ 2203 at 266–76 (Aspen 2d ed 2005).

<sup>7</sup> Areeda and Hovenkamp, 3 *Antitrust Law* ¶ 651a at 72 (cited in note 5).

producing the correct amount of deterrence or an equitable remedy likely to improve competition.

Phillip Areeda and Donald Turner gave a somewhat different definition of unilateral exclusionary conduct in their first edition: “‘Exclusionary’ conduct is conduct, other than competition on the merits or restraints reasonably ‘necessary’ to competition on the merits, that reasonably appear capable of making a significant contribution to creating or maintaining monopoly power.”<sup>8</sup>

That definition required a further definition of “competition on the merits.” Although Areeda and Turner did not fully define that phrase, they stated that it included “non-exploitative pricing, higher output, improved product quality, energetic market penetration, successful research and development, cost-reducing innovations, and the like.”<sup>9</sup> This definition attempted to identify exclusionary conduct by enumerating a list of practices that fell outside of the definition, and later describing in some detail the various practices that were thought to fall within it. Thus, in the early years, there was no “general” definition of exclusionary conduct.<sup>10</sup>

The definition given in the current edition is an attempt to craft a more general statement that is capable of being administered. However, it is not nearly as explicit as other definitions that have appeared in the literature and, to a lesser extent, the case law. The alternatives that seem most promising are the willful acquisition of monopoly power;<sup>11</sup> Judge Richard Posner’s assertion that exclusionary conduct is conduct that is capable of excluding an equally efficient rival;<sup>12</sup> the so-called “sacrifice test” that was promoted by the government in the Supreme Court’s recent decision in *Verizon Communications Inc v Law Offices of Curtis V. Trinko, LLP*;<sup>13</sup> the related definition, also pro-

<sup>8</sup> Phillip E. Areeda and Donald F. Turner, 3 *Antitrust Law* ¶ 626g(3) at 83 (Little, Brown 1978).

<sup>9</sup> *Id* ¶ 626b at 77.

<sup>10</sup> For the current classification system, see Areeda and Hovenkamp, 3 *Antitrust Law* ch 7A (“Horizontal Acquisitions and Agreements”), ch 7B (“Exclusionary Practices: Patents”), ch 7C (“Exploitative, Predatory, and Strategic Pricing”) (cited in note 5); Phillip E. Areeda and Herbert Hovenkamp, 3A *Antitrust Law: An Analysis of Antitrust Principles and Their Application* ch 7D (“Exclusionary Practices by Vertically Integrated Dominant Firms”), ch 7E (“Unfair, Predatory, and Tortious Competition Unrelated to Pricing Policies”), ch 7F (“Exclusionary Practices by the Regulated Monopolist”), ch 8 (“Power and the Power-Conduct Relationship in Monopolization and Attempt”) (Aspen 2d ed 2002).

<sup>11</sup> See *United States v Grinnell Corp*, 384 US 563, 570–71 (1966) (condemning the monopolist’s “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”).

<sup>12</sup> See Richard A. Posner, *Antitrust Law* 194–95 (Chicago 2d ed 2001). See also Part I.B.

<sup>13</sup> 540 US 398 (2004). The “sacrifice test” looks for the forgoing of short-term profits with the expectation of recouping that loss through the exercise of monopoly power in the future. See also Part I.C.

moted by the government, that exclusionary conduct is conduct whose profitability depends on the exclusion of rivals;<sup>14</sup> and another definition that identifies exclusionary conduct as that which unreasonably raises rivals' costs.<sup>15</sup>

The Areeda-Turner "laundry list" approach, with its focus on "competition on the merits," may do an adequate job of characterizing past decisions. But it is not always very helpful in evaluating novel practices. In contrast, one common problem of the more general tests is that they define anticompetitive exclusionary conduct too narrowly, too broadly, or both.

The definition given in the current edition of *Antitrust Law* attempts to strike a balance between these two approaches by focusing on three things: ability to create, enlarge, or maintain market power by excluding rivals; lack of sufficient consumer benefit; and administrability. This definition covers all "classic" instances of properly defined exclusionary conduct. For example, predatory pricing as defined under the Sherman Act requires below-cost prices that exclude or discipline rivals, followed by a "recoupment" period of above-cost prices whose time-discounted value is greater than the cost of predation.<sup>16</sup> Defined in this way, predatory pricing produces no net consumer benefits. Most claims challenging unilateral refusals to deal flunk the test on administrative grounds, or on the basis of proconsumer explanations for the refusal. Most properly defined anticompetitive practices in the realm of patents, including improper infringement suits, confer no consumer benefits at all, assuming that existing law has already established the optimal scope of patent coverage.<sup>17</sup> Product redesigns, as in cases like

---

<sup>14</sup> See Brief for the United States and the Federal Trade Commission as Amici Curiae Supporting Petitioner, *Verizon Communications Inc v Law Offices of Curtis V. Trinko, LLP*, No 02-682, \*15-25 (S Ct filed May 23, 2003) (available on Westlaw at 2003 WL 21269559). See also Part I.C.

<sup>15</sup> See Thomas G. Krattenmaker and Steven C. Salop, *Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power over Price*, 96 Yale L J 209, 214 (1986) (arguing that only exclusionary conduct that (1) raises rivals' costs and (2) allows the excluding firm to charge above the competitive price should be prohibited); Steven C. Salop and David T. Scheffman, *Raising Rivals' Costs*, 73 Am Econ Rev 267, 268-70 (1983) (distinguishing predatory pricing from raising rivals' costs using economic models). See also Part I.D.

<sup>16</sup> See *Brooke Group Ltd v Brown & Williamson Tobacco Corp*, 509 US 209, 224 (1993) ("[A] prerequisite to holding a competitor liable under the antitrust laws for charging low prices is a demonstration that the competitor had a reasonable prospect, or, under § 2 of the Sherman Act, a dangerous probability, of recouping its investment in below-cost prices."). The standard is explained in Areeda and Hovenkamp, 3 *Antitrust Law* ¶ 724 at 285 (cited in note 5) ("Recoupment requires not merely that post-predation monopoly prices be maintainable, but that they be of sufficient duration and magnitude to offset the costs of predation.").

<sup>17</sup> To be sure, an infringement lawsuit that wrongfully asserts claims that a patent does not protect could improve consumer welfare if current judicial construction of patent claims on this

*United States v Microsoft Corp.*<sup>18</sup> are anticompetitive only when they were calculated ex ante to produce no consumer benefits or harms that are seriously disproportionate to the benefits.<sup>19</sup> Business torts would almost never be condemned under this definition because most are nothing more than aggressive competition. Some instances of malicious conduct are an exception, but they would also have to meet the requirement that they be “reasonably capable of creating, enlarging or prolonging monopoly power.”<sup>20</sup>

#### A. Recent Judicial Definitions: *Trinko* and *Microsoft*

In *Trinko*, the Supreme Court’s most recent exclusionary conduct case, the Court quoted its forty-year-old statement that § 2 condemns the monopolist’s “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.”<sup>21</sup> Beyond that, the *Trinko* decision said very little about the conduct requirement generally.<sup>22</sup> Rather, it focused on the particular case of unilateral

---

issue is too narrow. But it is not the role of the antitrust laws to decide the appropriate breadth of patent claims.

<sup>18</sup> 253 F3d 34, 64–67 (DC Cir 2001) (finding antitrust violations in Microsoft’s decision to combine its browser and operating system code and exclude the browser from Add/Remove utility because rivals suffered and Microsoft failed to demonstrate that its actions benefited consumers). See also *C.R. Bard, Inc v M3 Systems, Inc*, 157 F3d 1340 (Fed Cir 1998) (holding that the defendant violated antitrust statutes by modifying its patented biopsy gun such that a competing needles manufacturer had to provide an adapter with its replacement needles).

<sup>19</sup> See Areeda and Hovenkamp, 3A *Antitrust Law* ¶ 776 at 232 (cited in note 10) (summarizing case law pertaining to Sherman Act claims against manufacturers who have rendered competitors’ products incompatible or unnecessary through a product redesign).

<sup>20</sup> Areeda and Hovenkamp, 3 *Antitrust Law* ¶ 651a at 72 (cited in note 5). The conduct at issue in the Sixth Circuit’s decision in *Conwood Co v United States Tobacco Co* almost certainly did not meet that test; most of the conduct appears to have been procompetitive, and the court’s description of the injuries indicates that they were de minimis. 290 F3d 768, 778–79 (6th Cir 2002) (finding a violation where a tobacco manufacturer discarded its rival’s point of sale racks and stuffed the rival’s products in the back of its own racks), cert denied, 537 US 1148 (2003). See also Phillip E. Areeda and Herbert Hovenkamp, *Antitrust Law: An Analysis of Antitrust Principles and Their Application* ¶ 782 at 206 (Aspen Supp 2004) (“In *Conwood* the Sixth Circuit brushed aside most of the accepted principles developed in the case law and the main text for distinguishing antitrust violations from tortious and even competitive practices.”).

<sup>21</sup> *Trinko*, 540 US at 407, quoting *Grinnell*, 384 US at 570–71.

<sup>22</sup> It did add:

The mere possession of monopoly power, and the concomitant charging of monopoly prices, is not only not unlawful; it is an important element of the free-market system. The opportunity to charge monopoly prices—at least for a short period—is what attracts “business acumen” in the first place; it induces risk taking that produces innovation and economic growth. To safeguard the incentive to innovate, the possession of monopoly power will not be found unlawful unless it is accompanied by an element of anticompetitive conduct.

*Trinko*, 540 US at 407.

refusal to deal, noting that a monopolist could not be condemned for developing a valuable “infrastructure” essential to operation in its market. Further, courts should be very reluctant to order firms to share such an infrastructure because forced sharing would diminish the incentive to develop it in the first place, and increase the risk of collusion.<sup>23</sup>

By contrast, the D.C. Circuit’s *Microsoft* decision gave a fairly elaborate definition that included allocation of proof burdens:

First, to be condemned as exclusionary, a monopolist’s act must have an “anticompetitive effect.” That is, it must harm the competitive *process* and thereby harm consumers. In contrast, harm to one or more *competitors* will not suffice. . . .

Second, the plaintiff, on whom the burden of proof of course rests, must demonstrate that the monopolist’s conduct indeed has the requisite anticompetitive effect. In a case brought by a private plaintiff, the plaintiff must show that its injury is “of ‘the type that the statute was intended to forestall,’” no less in a case brought by the Government, it must demonstrate that the monopolist’s conduct harmed competition, not just a competitor.

Third, if a plaintiff successfully establishes a *prima facie* case under § 2 by demonstrating anticompetitive effect, then the monopolist may proffer a “procompetitive justification” for its conduct. If the monopolist asserts a procompetitive justification—a nonpretextual claim that its conduct is indeed a form of competition on the merits because it involves, for example, greater efficiency or enhanced consumer appeal—then the burden shifts back to the plaintiff to rebut that claim.

Fourth, if the monopolist’s procompetitive justification stands unrebutted, then the plaintiff must demonstrate that the anticompetitive harm of the conduct outweighs the procompetitive benefit. . . .

Finally, in considering whether the monopolist’s conduct on balance harms competition and is therefore condemned as exclusionary for purposes of § 2, our focus is upon the effect of that conduct, not upon the intent behind it. Evidence of the intent behind the conduct of a monopolist is relevant only to the extent it helps us understand the likely effect of the monopolist’s conduct.<sup>24</sup>

---

<sup>23</sup> See *id.*

<sup>24</sup> *Microsoft*, 253 F3d at 58–59 (internal citations omitted).

While this definition is elaborate, it is also fairly unfocused, in that it does not specify criteria for harm to competition or the competitive process. It is roughly similar to the definition given in *Antitrust Law*,<sup>25</sup> except that it requires balancing harmful conduct against procompetitive benefit in certain cases. The following alternatives offer greater precision than either the *Antitrust Law* or judicial definitions provide, but also have problems of scope that limit their utility.

#### B. Conduct Likely to Exclude an Equally Efficient Rival

Judge Posner's definition of exclusionary conduct is conduct that is "likely in the circumstances to exclude from the defendant's market an equally or more efficient competitor."<sup>26</sup> Posner's definition has had some traction in the case law. For example, in condemning the targeted package discounts at issue in *LePage's Inc v 3M (Minnesota Mining and Manufacturing Co)*,<sup>27</sup> the Third Circuit observed that "even an equally efficient rival may find it impossible to compensate for lost discounts on products that it does not produce."<sup>28</sup> A specifically tailored discount aggregated over multiple products can exclude an equally efficient rival that makes only one or a subset of the products in question. For example, 3M manufactures office tape, staples, and pencils, while LePage's made only tape. 3M sized up customers who purchase large volumes of all three of its products and created the discount program at issue in the case, which aggregated the discounts over all three of the products. For example, suppose a customer makes monthly purchases of \$10,000 each of tape, staples, and pencils. 3M offers this firm a 10 percent discount provided that it takes the full \$10,000 of each of the three products from 3M. The fully discounted prices of all three products are above marginal (or average variable) cost, so none fits the legal definition of predatory pricing. However, in order to retain or acquire the customer for its tape, LePage's would also have to compensate the customer for its lost discount on the staples and pencils. LePage's might have to offer a tape discount of as much as 32 percent in order to make an offer that would attract such customers.

The "equally efficient rival" test has found widespread acceptance in predatory pricing cases, particularly in discussions of how to identify a price as predatory. The test operates under the reasoning

---

<sup>25</sup> See Areeda and Hovenkamp, 3 *Antitrust Law* ¶ 651a at 72 (cited in note 5).

<sup>26</sup> Posner, *Antitrust Law* at 194-95 (cited in note 12).

<sup>27</sup> 324 F3d 141 (3d Cir 2003) (en banc), cert denied, 124 S Ct 2932 (2004).

<sup>28</sup> 324 F3d at 155, quoting Phillip E. Areeda and Herbert Hovenkamp, *Antitrust Law: An Analysis of Antitrust Principles and Their Application* ¶ 794 at 83 (Aspen Supp 2002).



that a firm should not be penalized for having lower costs than its rivals and pricing accordingly. As a result, a price is predatory only if it is reasonably calculated to exclude a rival who is at least as efficient as the defendant.<sup>29</sup> Judge Posner's own examples in defense of his definition pertain to pricing. He writes: "It would be absurd to require the firm to hold a price umbrella over less efficient entrants. . . . [P]ractices that will exclude only less efficient firms, such as the monopolist's dropping his price nearer to (but not below) his cost, are not actionable, because we want to encourage efficiency."<sup>30</sup> Clearly we do not want low cost firms to hold their prices above their costs merely to suffer a rival becoming established in the market.

The equally efficient rival definition of exclusionary conduct has much to be said for it, but it can underdeter in situations where the rival that is most likely to emerge is less efficient than the dominant firm. Consider the filing of fraudulent or otherwise improper patent infringement claims. The value of infringement actions as entry deterrence devices is greatest when the parties have an unequal ability to bear litigation costs. This will typically be before or soon after the new entrant has begun production. The filing of a fraudulent patent infringement suit, unlike setting one's price at or a little above marginal cost, is a socially useless practice. But the strategy might very well not be effective against an equally efficient rival, who could presumably defend and win the infringement claim. In this case Judge Posner's definition of exclusionary conduct seems unreasonably lenient and even perverse. It exonerates the defendant in precisely those circumstances when the conduct is most likely to be unreasonably exclusionary.

Even certain instances of predatory pricing seem troublesome under the "equally efficient rival" test. Consider *United States v AMR Corp.*,<sup>31</sup> where the Tenth Circuit dismissed a predatory pricing claim against American Airlines. The government claimed that when con-

---

<sup>29</sup> See, for example, *Barry Wright Corp v ITT Grinnell Corp*, 724 F2d 227, 232 (1st Cir 1983) (noting that an "avoidable" or "incremental" cost test for predatory pricing is based on the intuition that it is irrational for firms to price below incremental cost because it would be less costly for the defendant to halt production, and that "equally efficient competitors cannot permanently match this low price and stay in business"). See also *MCI Communications Corp v AT&T Co*, 708 F2d 1081, 1111-31 (7th Cir 1983) (finding that pricing above long-run incremental costs was not predatory); *Borden, Inc v FTC*, 674 F2d 498, 515-16 (6th Cir 1982) (finding that prices that forced rivals to price below average variable costs were predatory), *vac'd on other grounds*, 461 US 940 (1983); *Ortho Diagnostic Systems, Inc v Abbott Laboratories, Inc*, 920 F Supp 455, 466-67 (SD NY 1996) ("[B]elow-cost pricing, unlike pricing at or above that level, carries with it the threat that the party so engaged will drive equally efficient competitors out of business, thus setting the stage for recoupment at the expense of consumers.").

<sup>30</sup> Posner, *Antitrust Law* at 196 (cited in note 12).

<sup>31</sup> 335 F3d 1109 (10th Cir 2003) (holding that American Airlines' prices were not predatory because they were above average variable cost, the appropriate measure of cost).

fronted with competition on one of its routes, American would transfer aircraft that were profitable on other routes into the targeted route, flooding it with new capacity and lowering its prices to match those of the upstart. The record indicated that price matching usually induced customers to travel with American, because it offered connecting flights while the upstarts did not.<sup>32</sup>

*AMR* illustrates a rather specialized example of the dominant firm that enjoys significant scale economies. Often these economies are so substantial that no rival can match them, at least not until it becomes well established. As an opening premise, we would not want a firm to hold a price umbrella over smaller rivals who have not yet attained similar scale economies. But what if the firm engages in some practice that is both harmful and completely irrational in the sense that it adds nothing to the defendant's profits but for its ability to exclude a rival? Should such a firm have as a defense that the practice would not have excluded an equally efficient rival? Or shouldn't the question be whether the practice was irrational for the defendant but for its exclusionary effect, and likely under the circumstances to exclude the class of rivals most likely to appear on the scene?

In cases that involve exclusionary contracts, such as tying or exclusive dealing, it may be true as a matter of fact that equally efficient rivals will not be excluded. However, in the absence of significant scale economies, such contracts are highly unlikely to exclude anyone. So then the question becomes whether the dominant firm enjoying significant scale economies can use tying or exclusive dealing to exclude firms that, by virtue of their smaller size, are necessarily less efficient. Once again, the focus of antitrust must be on the rivals that are most likely to appear on the scene, and we should not condone socially useless conduct simply because a hypothetical equally efficient rival would not be excluded.

### C. "Sacrifice" Tests

Sacrifice tests for exclusionary conduct look at the defendant's willingness to sacrifice short-term revenues or profits in exchange for larger revenues anticipated to materialize later when a monopoly has been created or the dominant firm's position has been strengthened. The strongest example of such a test is the recoupment test for predatory pricing first articulated by the Court in *Brooke Group Ltd v*

---

<sup>32</sup> *Id* at 1111-12.

*Brown & Williamson Tobacco Corp.*,<sup>33</sup> although it appeared in lower court opinions and the academic literature much earlier.<sup>34</sup>

It has been suggested that the recoupment test for predatory pricing is strictly a function of the fact that the law requires that prices be below cost. As the argument goes, recoupment is necessary to make below-cost pricing rational, but the requirement would be unnecessary if antitrust law were willing to condemn sustainable, above-cost pricing strategies, such as limit pricing, or charging less than one's profit-maximizing price.<sup>35</sup> But that argument is fallacious. Even above-cost predatory pricing strategies are unprofitable in the short run, and a rational firm will make such an investment only if it anticipates that it will be profitable in the long run. For example, a firm might calculate that by charging its full monopoly price it will earn \$10 million annually but entry will occur in three years. If it charges a lower, entry-detering price, its annual profits will drop to \$5 million but entry will be deterred indefinitely. Even if we ignore the time value of money, under this "limit" strategy the firm will need six years to earn the same \$30 million it would have earned by simply charging its monopoly price. The period is in fact longer because dollars earned in the future are not as valuable as dollars earned today. The strategy will not become profitable until at least the seventh year. So the "recoupment" question in this case is whether the firm can reasonably anticipate that the limit strategy will delay entry for six years or more. If it does not—for example, if entry occurs after four years—then the limit strategy will be unprofitable even though pricing at all times was above cost.

So some version of the sacrifice, or recoupment, test is necessary in all pricing cases that involve the sacrifice of short-term profits. If there is no sacrifice of immediate profits—that is, if the price cut is profitable immediately—then the price is efficient and absolutely lawful. At the same time, however, "sacrifice" is not sufficient. Whether or

---

<sup>33</sup> 509 US 209, 224 (1993).

<sup>34</sup> See, for example, *A.A. Poultry Farms, Inc v Rose Acre Farms, Inc*, 881 F2d 1396, 1400–01 (7th Cir 1989). See also Areeda and Turner, 3 *Antitrust Law* ¶ 711b at 151 (cited in note 8); Richard A. Posner, *Antitrust Law: An Economic Perspective* 184–96 (Chicago 1976); Phillip Areeda and Donald F. Turner, *Predatory Pricing and Related Practices Under Section 2 of the Sherman Act*, 88 Harv L Rev 697, 698 (1975) ("[T]he classically-feared case of predation has been the deliberate sacrifice of present revenues for the purpose of driving rivals out of the market and then recouping the losses through higher profits earned in the absence of competition."). The current law is described in Areeda and Hovenkamp, 3 *Antitrust Law* ¶¶ 725–30 at 293–363 (cited in note 5).

<sup>35</sup> See Einer Elhauge, *Why Above-Cost Price Cuts to Drive Out Entrants Are Not Predatory—and the Implications for Defining Costs and Market Power*, 112 Yale L J 681, 697 n 51 (2003) ("[A]ny holding requiring recoupment implicitly requires pricing that incurs some sort of loss, otherwise there is nothing to recoup."); Aaron S. Edlin, *Stopping Above-Cost Predatory Pricing*, 111 Yale L J 941, 942 (2002).

not there is a sacrifice, the plaintiff must also show prices below incremental (or average variable) cost. We do not condemn the monopolist who cuts price to an above cost level because it knew that a rival would be forced to exit from the market. Such behavior is completely consistent with our conception of proper competition.

The sacrifice test is also useful in unilateral refusal to deal cases to the extent that, if we are to condemn refusals to deal at all, we must have a mechanism for identifying the very small subset of refusals that should be condemned. The government relied heavily on a sacrifice theory in arguing that the alleged refusal to deal in the *Trinko* case did not satisfy any Sherman Act standard of illegality.<sup>36</sup>

“Sacrifice” of short-run revenues is a necessary, but hardly a sufficient, condition for condemning a unilateral refusal to deal under § 2. The *Trinko* decision recognized this by refusing to condemn Verizon’s alleged refusal to forgo higher profit retail sales in order to make lower profit wholesale sales to rivals.<sup>37</sup> While this “sacrifice” condition was necessary to condemnation, it was not sufficient because of the overwhelming administrative problems that any law of unilateral refusals to deal produces. The Supreme Court also wisely declined to condemn a firm’s refusal to develop new assets for the benefit of rivals, presumably even if it could be shown that such development would have been profitable. Rather, it found, the refused assets must be part of existing capacity, such as unused space on a pipeline or electric transmission line.<sup>38</sup> In addition, the Court held that the antitrust laws should not be used to force a firm to sell at retail something that it had refused to retail in the past but simply used internally.<sup>39</sup>

---

<sup>36</sup> See Brief for the United States and the Federal Trade Commission as Amici Curiae Supporting Petitioner, *Verizon Communications Inc v Law Offices of Curtis V. Trinko, LLP* at \*16 (cited in note 14) (“[I]n the context of asserted duties to assist rivals, this Court and the courts of appeals have recognized that conduct is exclusionary where it involves a sacrifice of short-term profits or goodwill that makes sense only insofar as it helps the defendant maintain or obtain monopoly power.”). See also id at \*19 (“If such a refusal involves a sacrifice of profits or business advantage that makes economic sense only because it eliminates or lessens competition, it is exclusionary and potentially unlawful.”).

<sup>37</sup> *Trinko*, 540 US at 407–11.

<sup>38</sup> Id at 409–10.

<sup>39</sup> Id at 410 (“In the present case, by contrast, the services allegedly withheld are not otherwise marketed or available to the public.”), distinguishing *Aspen Skiing Co v Aspen Highlands Skiing Corp*, 472 US 585 (1985), and *Otter Tail Power Co v United States*, 410 US 366 (1973). The decision thus overrules the Ninth Circuit’s decision in *Image Technical Services, Inc v Eastman Kodak Co*, 125 F3d 1195 (9th Cir 1997) (affirming injunctive relief and damages award where a photocopy machine manufacturer decided to forgo the short-run revenues it would have obtained by selling parts to independent service organizations that repaired the defendant’s machines). The Court also seemed extremely reluctant to intervene in a situation where there was no established history of dealing that the defendant repudiated, such as had existed in *Aspen Skiing. Trinko*, 540 US at 409–10. See also *Aspen Skiing*, 472 US at 592–94 (noting that after a

The sacrifice test works much less well in other areas of monopolization law. Some exclusionary practices, such as exclusive dealing or tying, exclude immediately and are likely to be profitable to the dominant firm from the onset of the practice, so neither short-term sacrifice nor subsequent recoupment is necessary to make the practice profitable.<sup>40</sup> The same thing might be said of restrictive patent licensing practices, most of which are best analogized to either exclusive dealing or tying.

Other practices, such as improper infringement suits, are often costly to the defendant in the short run whether or not they are anti-competitive. Indeed, the improper patent infringement suit is likely to be most costly to the dominant firm when the infringement defendant has the resources to defend it, and may not be particularly costly when the infringement defendants are nascent firms who are easily excluded from the market.

Product innovations are always costly to the defendant, and their success may very well depend on their ability to exclude rivals from the market, but neither of these factors is or should be decisive in subsequent antitrust litigation. All innovation is costly, and many successful innovations succeed only because consumers substitute away from rivals' older versions and toward the innovator's version. After all, the goal of innovation is increased sales, and one increases one's sales either by bringing new customers into the market or else by stealing customers from rivals. As a result, willingness to "sacrifice" short-term profits in anticipation of later monopoly profits does not distinguish anticompetitive from procompetitive uses of innovation. The distinction lies in the character of the innovation itself. Innovation is anti-competitive only in the very rare situation when the innovator knew in advance that the product would not be an improvement but that it would serve to make a rival's technology (typically a complement to the innovated product) incompatible with the dominant technology.<sup>41</sup>

#### D. Raising Rivals' Costs and Discriminatory Conduct

One of the foundations of the so-called "post-Chicago" revolution in antitrust was the development of a collection of theories ex-

---

history of sharing revenues from a four-mountain ski-lift pass, the company owning three of the mountains discontinued its participation in the pass and refused to sell to its rival at retail cost). Finally, it refused to apply the doctrine unless the plaintiff could show that the assets for which a sharing obligation was claimed were not otherwise available on the market. *Trinko*, 540 US at 410.

<sup>40</sup> See, for example, Herbert Hovenkamp, 11 *Antitrust Law: An Analysis of Antitrust Principles and Their Application* ¶ 1802 at 60 (Aspen 1998) (exclusive dealing foreclosing rivals); id ¶ 1803 at 89 (same, output contract); id ¶ 1804 at 101 (same, raising rivals' costs).

<sup>41</sup> See Areeda and Hovenkamp, 3A *Antitrust Law* ¶ 776 at 232 (cited in note 10).

plaining how dominant firms might use contracts, product innovations or specifications, government process, or other means to impose disproportionately higher costs on rivals. The result might not literally exclude rivals from the market, but the dominant firm could raise its own price as the competitive fringe became less efficient.<sup>42</sup>

Judge Posner's brusque critique of the raising rivals' costs theory (at one point, he dryly calls it "not a happy formula") pointedly notes that a company may be able to raise its rivals' costs by being so efficient as to make its rival "unable to reach a level of output at which to exploit the available economies of scale."<sup>43</sup> Alternatively, Posner notes, a dominant firm might use practices such as predatory pricing to deprive a rival of revenues without affecting costs.<sup>44</sup>

The real value of raising rivals' costs theories is not to create a new set of unlawful exclusionary practices, but rather to show that certain practices that have been the subject of antitrust scrutiny for a long time can be anticompetitive even though they do not literally "exclude." Equilibria in which rivals stay in the market but their costs increase are more likely both to occur and exist in a wider variety than equilibria in which rivals are destroyed. Further, cost-raising strategies might be less detectable and less likely to invite prosecution. Indeed, a strategy of raising rivals' costs need not injure a rival severely at all if the dominant firm increases its own prices to permit smaller firms a price hike that compensates them for their cost increase. As a result, raising rivals' costs operates as a kind of substitute for the older antitrust theories of "foreclosure," but without some of the conceptual problems that accompanied foreclosure theories. Many cases brought under both § 1 and § 2 of the Sherman Act have acknowledged the theory.<sup>45</sup>

---

<sup>42</sup> See Krattenmaker and Salop, 96 Yale L J 209 (cited in note 15); Salop and Scheffman, 73 Am Econ Rev 267 (cited in note 15). See also Herbert Hovenkamp, *Post-Chicago Antitrust: A Review and Critique*, 2001 Colum Bus L Rev 257, 318–23 (noting some contributions of the post-Chicago School of antitrust, particularly the raising rivals' costs theory, which shifted antitrust focus from destruction of rivals to their marginalization).

<sup>43</sup> Posner, *Antitrust Law* at 196 (cited in note 12).

<sup>44</sup> *Id.* at 197.

<sup>45</sup> See, for example, *Microsoft*, 253 F3d at 70 (finding a § 2 violation where Microsoft's exclusionary contracts relegated rival Netscape to higher cost distribution channels); *JTC Petroleum Co v Piasa Motor Fuels, Inc.*, 190 F3d 775, 778–79 (7th Cir 1999) (finding that members of a cartel may have paid off their suppliers to charge cartel rivals significantly higher prices, thus creating a price umbrella under which the cartel could operate); *In re Brand Name Prescription Drugs Antitrust Litigation*, 123 F3d 599, 614 (7th Cir 1997) (similar); *Forsyth v Humana, Inc.*, 114 F3d 1467, 1478 (9th Cir 1997) (finding that a health care provider's policy of shifting indigent patients to rivals could have the effect of raising their costs), *aff'd* on other grounds, 525 US 299 (1999); *Multistate Legal Studies, Inc v Harcourt Brace Jovanovich Legal and Professional Publications, Inc.*, 63 F3d 1540, 1552–53 (10th Cir 1995) (finding that a dominant firm's practice of scheduling its own full slate of classes so as to conflict with rivals' specialized classes could have

Of course, the law has never required complete market exclusion as a prerequisite to suit. Indeed, some successful § 2 plaintiffs have both grown their market shares and earned high profits even through the period that the exclusionary practices were occurring.<sup>46</sup>

In sum, raising rivals' costs is a sometimes useful but also incomplete definition of exclusionary practices. Further, many practices that raise rivals' costs, such as innovation that either deprives rivals of revenue or forces them to innovate in return, are also welfare enhancing.

One variation on raising rivals' costs is discrimination in price or other terms that imposes unnecessarily higher input costs on rivals. For instance, one proposal for refusal to deal cases is that the Sherman Act duty should arise when the defendant agrees to deal with a rival or those who deal with rivals only on a discriminatory basis—for example, at higher prices than it is offering to nonrival customers.<sup>47</sup> But using discrimination in prices or terms as a basis for antitrust liability is both unworkable and hostile to consumer welfare.

Most of the assets that are the subject of plausible refusal to deal complaints have a significant fixed cost component.<sup>48</sup> One characteristic of fixed costs is that there is no inherently "correct" price for them. Because the marginal cost of delivering a pure fixed cost asset is zero, pure marginal cost pricing will not work. There are a variety of policy choices for addressing this problem,<sup>49</sup> but most of them involve some sort of price discrimination.

---

had the effect of raising the rival's cost of distributing its own product); *Premier Electrical Construction Co v National Electrical Contractors Association, Inc.*, 814 F2d 358, 368–71 (7th Cir 1987) (finding that an alleged agreement between a union and a contractors' association under which the union would obtain a fee from all employers with whom it had collective bargaining agreements, whether or not they were association members, to be paid to the association, was probably intended to raise the costs of nonmember contractors). But see *Ball Memorial Hospital, Inc v Mutual Hospital Insurance, Inc.*, 784 F2d 1325, 1340 (7th Cir 1986) (rejecting a claim that Blue Cross forced hospitals to submit lower bids for taking care of its patients, with the result that it had to impose higher charges on other providers' patients).

<sup>46</sup> See, for example, *Conwood*, 290 F3d at 788 (claiming that the plaintiff's market share would have grown even faster and that it would have earned even more profits but for the exclusionary conduct).

<sup>47</sup> See Einer Elhauge, *Defining Better Monopolization Standards*, 56 Stan L Rev 253, 308–11 (2003) (arguing that liability should arise only in rival-based discrimination cases because such discrimination is unnecessary for ex ante incentives to invest in efficiency innovation).

<sup>48</sup> Claims of anticompetitive unilateral refusal to deal are plausible only in structurally monopolized markets where access to the defendant's technology or facility is necessary for the plaintiff's survival. In the great majority of such cases a significant cost component in such assets is fixed, such as intellectual property rights or large specialized plants or other facilities. Absent assets of this character, it is hard to see how a refusal to deal could harm competition. See Areeda and Hovenkamp, 3A *Antitrust Law* ¶ 773 at 195 (cited in note 10).

<sup>49</sup> See, for example, R.H. Coase, *The Marginal Cost Controversy*, 13 *Economica* 169 (1946) (suggesting different approaches to determining prices in conditions of decreasing average costs).

One significant feature of the sale of fixed cost assets is that the costs to all customers in the aggregate can go down as the owner of the fixed cost asset increases output, so socially efficient pricing typically requires the firm to try to bring into the market every customer capable of paying a price that covers variable costs and makes a positive contribution to the fixed costs, to the point that the fixed cost asset is operating at its full efficient capacity. This was a well-known problem already in the nineteenth century and explains the long history of price discrimination in railroad rates as well as most other public utilities.<sup>50</sup>

Indeed, price discrimination in favor of a rival buyer very often benefits the complaining buyer. For example, suppose that a gas pipeline with a capacity of 100 units per year is a fixed cost asset and that the variable costs of delivering it to a customer are zero.<sup>51</sup> The costs of amortizing the fixed cost indebtedness are \$100 per year. These costs do not vary with use and must be paid whether or not the pipeline is used at all. Suppose the pipeline takes on a single customer who requires 20 units of pipeline use per year. The competitive price is \$5 per unit, which just covers the owner's costs. The customer is willing to pay that amount because it can resell profitably and has no alternatives. The customer may or may not be a rival of the owners. Now a second customer appears on the horizon. It requires 20 units of pipeline per year but has other options and is therefore willing to pay only \$2 per unit. The owner makes the sale and the disfavored customer immediately protests. However, as a result of making this sale to the second customer, the pipeline can actually reduce the price to the first customer to \$3 per unit, which would yield \$40 in revenue from the second customer and \$60 from the first customer. To say this differently: one important attribute of fixed cost assets is that the first customer can be better off if the seller is charging a lower price to a rival purchaser than if the seller is not selling to the rival purchaser at all.<sup>52</sup>

The hypothetical also suggests a socially efficient solution to the problem of pricing of fixed cost assets: the monopolist price discriminated by bringing each customer into the market at the price it was willing to pay—that is, it charged a price that varied inversely with the

---

<sup>50</sup> See Herbert Hovenkamp, *Regulatory Conflict in the Gilded Age: Federalism and the Railroad Problem*, 97 Yale L J 1017, 1045–55 (1988).

<sup>51</sup> In realistic situations there would certainly be some variable costs, but that fact does not change the analysis.

<sup>52</sup> This problem was well known to railroad economists in the late nineteenth century. See, for example, Arthur T. Hadley, *Railroad Transportation: Its History and Its Laws* 108–24 (GP Putnam's Sons 1885). The problem was developed further in William Z. Ripley, *Railroads: Rates and Regulation* 467–73 (Longman's, Green 1912). See also Hovenkamp, 97 Yale L J at 1052–53 (cited in note 50).



customer's elasticity of demand.<sup>53</sup> Administering such prices poses a problem that is difficult enough for regulatory agencies and is certainly intractable for courts.

An unregulated monopolist with significant fixed cost assets but facing some competitive pressures uses price discrimination in a similar fashion, maximizing its total revenues by getting output high, which typically entails pricing to different customers according to their elasticity of demand. Whether a rival, or some particular rival, ends up being a low elasticity customer asked to pay a higher price is *a priori* difficult to say, but there is no reason for thinking that phenomenon is rare. For example, on the facts of *Trinko*, it is quite plausible that the low elasticity customers are small Competing Local Exchange Carriers (CLECs) who need to purchase all their inputs from the Incumbent Local Exchange Carriers (ILECs), while larger CLECs who are capable of providing many of their own facilities will be more sensitive to the ILECs' prices. Customers may have a higher elasticity of demand to the extent they can transfer their telecommunications demands to competing services, such as wireless, internet, or cable. The same thing could be true of a gas pipeline. A rival gas shipper with heavy financial commitments in gas technology may "need" access to the pipeline to ship its gas, and thus be willing to pay a higher price. By contrast, other types of customers may have the alternative of burning coal, using electricity instead of gas, or even purchasing gas from a different source. In that case Ramsey-efficient pricing might dictate higher prices to the rival and lower ones to customers. Ultimately this benefits both the rival and the customers who have lower net prices because both sets of buyers are in the market.

From an antitrust perspective this means that attaching antitrust consequences to a firm's decision to charge rivals higher prices than nonrival buyers places the court squarely in the position of the public utility regulator.

---

<sup>53</sup> This is so-called "Ramsey pricing," originally suggested in Frank P. Ramsey, *A Contribution to the Theory of Taxation*, 37 *Econ J* 47 (1927). For a brief, nontechnical, definition, see Theodore E. Keeler and Stephan E. Foreman, *Regulation and Deregulation*, in Peter Newman, ed., 3 *The New Palgrave Dictionary of Economics and the Law* 213 (MacMillan 1998). For more technical discussions, see W. Kip Viscusi, John M. Vernon, and Joseph E. Harrington, Jr., *Economics of Regulation and Antitrust* 350-53 (MIT 3d ed 2000); Kenneth E. Train, *Optimal Regulation: The Economic Theory of Natural Monopoly* ch 4 (MIT 1991). See also *AT&T Corp v Iowa Utilities Board*, 525 US 366, 426 (1999) (Breyer concurring in part) (noting the social value of Ramsey pricing).

## II. MULTILATERAL EXCLUSIONARY CONDUCT

The definition of multilateral exclusionary conduct is properly broader than the definition of unilateral exclusionary conduct for two reasons. First, the market controlling joint venture or cartel, unlike the single dominant firm, is not legally entitled to an output reduction. Second, in the case of collaborative activity, judicial remedies are much easier to fashion.

On the first point, because so many monopolists create their initial positions by innovation or aggressive competitive behavior, antitrust law has never seriously entertained condemnation of monopolists without fault, or declaring their output reduction to the profit-maximizing level to be unlawful. This point was reiterated in *Trinko*,<sup>54</sup> and it has not been controversial for several decades.<sup>55</sup> In sharp contrast, antitrust policy tolerates collaboration among competitors who collectively have market power only to the extent that it tends to reduce costs or improve products, and the firms pass at least some of these economic improvements on to consumers. Thus an output reduction alone is actionable when committed by a collusive group with significant market power, although not when committed by a monopolist acting alone.

The second point is demonstrated by the fact that, for a wide variety of exclusionary practices, relief can be much more effectively designed and implemented against the collusive group than against the firm acting unilaterally. The law of refusal to deal is the most obvious example. A dealing order against a single firm must generally specify the scope and terms of the duty to deal, and this places the court in the position of public utility regulator. Of course, the duty can be enforced through damages actions, but this still requires after-the-fact determinations of the scope and terms of the duty to deal.

In contrast, a court can often discipline the joint venture's or cartel's refusal to deal by enjoining the agreement not to deal. Assuming the market is structured reasonably competitively, the individual firms will then act in their own individual best interest. Assuming that the *agreement* not to deal had been necessary in the first place, the firms

---

<sup>54</sup> 540 US at 415–16 (“The Sherman Act is indeed the ‘Magna Carta of free enterprise,’ . . . but it does not give judges *carte blanche* to insist that a monopolist alter its way of doing business whenever some other approach might yield greater competition.”) (internal citations omitted).

<sup>55</sup> In 1978 Areeda and Turner offered a proposal under which the government, but not private plaintiffs, could obtain equitable relief against durable monopolies held without fault. The proposal was never adopted by any court, and for good reasons. See Areeda and Hovenkamp, 3 *Antitrust Law* ¶¶ 630–38 at 44–66 (cited in note 5) (restating the proposal and this author's criticisms).

acting individually, or at least some of them, will presumably profit from dealing.

For these reasons the test for multilateral exclusionary conduct by firms enjoying collective market power need inquire only whether the conduct impairs the opportunity of rivals without significantly reducing the defendants' costs or improving the quality of their product.