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Article

Anticompetitive Exclusion: Raising Rivals' Costs To Achieve Power over Price

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Antitrust law governs a wide range of disparate practices across the entire economy, and is frequently perceived as a complex body of highly specialized rules. Yet at its core antitrust law is a simple matter: It seeks, by prohibiting undue collusion among competitors and unjustifiable exclusion of competing firms, to prevent companies from obtaining and exercising the power to price above competitive levels.¹ Collusion and exclusion are the twin objects of antitrust scrutiny, but they are not equally focused in the sights of antitrust enforcers and courts.

Today, antitrust law is most coherent and least controversial when trained on concerted action by competing firms, so-called "horizontal restraints" or on "horizontal" mergers among competitors. Particular claims of collusion or undue concentration can be difficult to assess, but the factors to be examined are not in great dispute, and the illegitimacy of horizontal collusion or combination intended or expected to restrict output and raise prices is well settled.²

The state of antitrust law governing exclusion is quite a different matter. It is in substantial disarray. Recent critical scholarship has demonstrated that prevailing antitrust law applies disparate and questionable rules to superficially different commercial practices that have identical effects on the market.³ These criticisms, in turn, have shaken judges' confi-

1. See R. BORK, *THE ANTITRUST PARADOX* 134-60 (1978); R. POSNER, *ANTITRUST LAW* 23-31, 171 (1976). Two major antitrust casebooks organize the principal materials along these collusion/exclusion lines. See M. HANDLER, H. BLAKE, R. PITOFKY & H. GOLDSCHMID, *TRADE REGULATION* 636-895 (2d ed. 1983); R. POSNER & F. EASTERBROOK, *ANTITRUST* 603-902 (2d ed. 1981). For an argument that an analysis such as the one offered here is needed, see Hovenkamp, *Antitrust Policy After Chicago*, 84 MICH. L. REV. 213 (1985).

2. See, e.g., L. SULLIVAN, *HANDBOOK OF THE LAW OF ANTITRUST* 197-212 (1977); Bork, *The Rule of Reason and the Per Se Concept: Price Fixing and Market Division* (pts. 1 & 2), 74 YALE L.J. 775 (1965), 75 YALE L.J. 373 (1966).

3. See *infra* Section I.B.

dence in prevailing doctrines. For example, although the Supreme Court has left on its books many cases that appear to reflect a deep hostility to exclusion by vertical integration, more than fifteen years have passed since the Court last ruled for the plaintiff in a vertical restraints case not involving resale price maintenance.⁴ In the recent *Hyde* case,⁵ rejecting challenges to two classic methods of vertical integration, exclusive dealing arrangements, and tie-in sales, four members of the Court expressly sought to revise the formal rules governing tie-ins.⁶ Although the other five Justices joined in a Court opinion that did not overtly seek such change, their opinion also casts doubt on the continued viability of conventional vertical restraints analysis.⁷

Subsequent cases have not clarified the law. During the 1984 Term, the Court rendered opinions in two cases in which plaintiffs complained of anticompetitive exclusion. In *Northwest Stationers*,⁸ a unanimous Court rejected the claim that plaintiff's expulsion from a wholesale purchasing cooperative was a per se violation of the antitrust laws. In *Aspen Ski*,⁹ the Court, again speaking unanimously, affirmed a judgment entered on a jury verdict that defendant, who controlled three of Aspen's four major facilities for downhill skiing, had monopolized that market by refusing to continue to market jointly with plaintiff, the operator of the fourth facility, a weekly ticket enabling its purchaser to ski all facilities for an extended period. In many respects, these opinions speak the language of current antitrust enforcement authorities, who have criticized prevailing doctrines and asserted that antitrust law should be concerned solely with practices that are likely to generate market power, defined as the ability to

4. The last such case was *Fortner Enters. v. United States Steel Co.*, 394 U.S. 495 (1969). That decision produced only a temporary victory. See *United States Steel Co. v. Fortner Enters.*, 429 U.S. 610 (1977). These results may have effects in lower courts as well. For example, recent empirical research shows that the plaintiff win rate in litigated vertical cases has fallen substantially since 1980. Salop & White, *Treble Damage Reform: Implications of the Georgetown Project*, 55 ANTITRUST L.J. 73, 79 (1986).

Despite our use of the term in this introduction, this Article does not treat "vertical restraints" in one sense in which the term frequently is employed in the literature. "Vertical restraint" is often used to include any element of an agreement between buyers and suppliers, especially an agreement on the price at which the buyer will resell. See, e.g., Easterbrook, *Vertical Arrangements and the Rule of Reason*, 53 ANTITRUST L.J. 135, 140-43 (1984). As explained below, see *infra* Sections I, III.A., we consider here only agreements between buyers and suppliers in which the supplier agrees to refuse to deal with one or more of the buyer's competitors (or to discriminate against them with respect to price). The cases we consider can be anticompetitive because they force disadvantaged buyers to seek alternate sources of supply. See *infra* Section IV.

5. *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2 (1984).

6. *Id.* at 32-42 (O'Connor, J., concurring).

7. See *infra* note 26.

8. *Northwest Wholesale Stationers, Inc. v. Pacific Stationery & Printing Co.*, 105 S. Ct. 2613 (1985).

9. *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 105 S. Ct. 2847 (1985).

raise price above competitive levels and to restrict output.¹⁰ These opinions assert that claims of exclusion should be judged by assessing their competitive impact—effects on consumers and the competitiveness of the market—rather than by their effects on competitors or other would-be suppliers to consumers. Neither opinion, however, explains how that assessment can be made. Both *Northwest Stationers* and *Aspen Ski* appear to be decisions in which the Court felt its way through murky precedent to what the Justices' instincts told them were "correct" results despite the lack of a coherent analytical framework.¹¹ This Article seeks to provide the unified analysis for which both the Court and its critics search. Our conclusions reject both the Court's prevailing formal rules and its harshest critics' proposals to abandon virtually all review of allegations of anticompetitive exclusion. Unlike the present Court, we believe that analysis of such claims should involve applying a unified legal doctrine to a series of practices previously thought to raise distinct issues. Following scholars critical of prevailing rules, we believe the new doctrine should reflect the present state of economic theory concerning collusion and exclusion. That new doctrine also should build upon the widely shared perception that the purpose of antitrust law is to further consumer welfare.¹² Finally, the new doctrine should provide more rigorous measures of anticompetitive effects than do current rules.

Unlike the Court's harshest critics, however, we do not believe that economic theory or antitrust policy suggests that virtually all exclusion claims

10. In *Northwest Stationers*, the Court held that the per se rule against concerted refusals to deal was not available to the plaintiff because it had failed to show that "the cooperative possesses market power or exclusive access to an element essential to effective competition." *Northwest Stationers*, 105 S. Ct. at 2621. Similarly, the *Aspen Ski* opinion pointedly asserted that the legality of the defendant's conduct was not to be tested solely by its effects on the plaintiff. *Aspen Ski*, 105 S. Ct. at 2859. Although the effect of defendant's conduct on its rivals was a starting point, the Court also measured the challenged conduct's "impact on consumers and whether it has impaired competition in an unnecessarily restrictive way." *Id.* Further, the opinion approvingly cited the view that disruption of distribution patterns (i.e., exclusion of competing purchasers or suppliers) harms competition when it increases rivals' distribution costs and thereby renders supply patterns less efficient. *Id.* at 2858 n.31 (quoting R. BORK, *supra* note 1, at 156).

11. The *Northwest Stationers* Court left completely unclear the circumstances in which claims of efficiency are to be considered. The Court appears to have suggested that the plaintiff could prevail—on a rule of reason rather than a per se analysis—even if it did not prove defendant possessed market power. *Northwest Stationers*, 105 S. Ct. at 2621 ("Absent [a showing of market power] with respect to a cooperative buying arrangement, courts should apply a rule-of-reason analysis."). At the same time, the Court hinted at the possibility that its analysis would be applicable only to antitrust challenges to expulsions from buying cooperatives. *Id.* at 2620–21. The *Aspen Ski* opinion appears to conclude that the practice harmed consumers because some were "angry," "infuriated," or "irate." *Aspen Ski*, 105 S. Ct. at 2860 & n.36, and contains no analysis of whether downhill skiing in Aspen constitutes a market. *Id.* at 2856 n.26.

12. See R. BORK, *supra* note 1, at 72–89. Of course, the term "consumer welfare" can embrace several distinct values. We try to highlight this fact where relevant. See *infra* Sections IV.B.3., VII.C.2. In general, our analysis assumes that antitrust law is designed to achieve allocative efficiency. Those who would employ antitrust law for additional purposes may wish to add further tests of illegality to those advocated here.

are chimerical. Rather, employing the methods of analysis set forth in this Article, we demonstrate that, in carefully defined circumstances, certain firms can attain monopoly power by making arrangements with their suppliers that place their competitors at a cost disadvantage. Our central argument is that claims of anticompetitive exclusion should be judged according to whether the challenged practice places rival competitors at a cost disadvantage sufficient to allow the defendant firm to exercise monopoly power by raising its price.

The proper approach to a wide variety of claims of exclusion, including those raised in *Hyde*, *Northwest Stationers*, and *Aspen Ski*, is to follow a two-step analysis to estimate the likelihood of anticompetitive effects. First, one should ask whether the conduct of the challenged firm unavoidably and significantly increases the costs of its competitors. If so, one then should ask whether raising rivals' costs enables the excluding firm to exercise monopoly power—that is, to raise its price above the competitive level.¹³ In other words, we inquire into injury to competition as well as injury to competitors. Although few exclusion claims probably would survive this two-step analysis, what we propose is far from a disguised rule of per se legality.¹⁴

We begin by reviewing the present state of antitrust law concerning exclusion claims, explaining why that law is presently confused and how our approach would unify and rationalize it. We then describe techniques that competitors successfully can employ to raise their rivals' costs and the circumstances under which success may confer on them the power to raise price. Next, we attempt to show how courts and antitrust enforcers might develop a set of objective guidelines to carry out the proposed two-step analysis. We also explain why it would be erroneous to assume that rivals always can protect themselves against anticompetitive exclusion, and we set out several ways to treat the efficiency defenses of those who exclude. Finally, we compare our analysis with those of others, including the Department of Justice, and outline some of the broader implications of our antitrust theories.

13. In some limited circumstances where the competitors' exclusion results from a conspiracy among suppliers orchestrated by the buyer, this second question may be unnecessary. See *infra* Section IV.A.3.a.; see also *infra* Section IV.B.3.

14. Although the specific questions we would ask are unique, our analysis has an affinity with, and seeks to build upon and extend to, cases involving multiple, unintegrated suppliers—what existing literature often terms the essential facilities doctrine. See, e.g., Note, *Unclogging the Bottleneck: A New Essential Facility Doctrine*, 83 COLUM. L. REV. 441 (1983). The inquiries we advocate not only would protect the core values furthered by the Sherman Act, but also would fuse the treatment of exclusion cases with the law's present approach toward claims of collusion.

I. ANTITRUST LAW AND EXCLUSION DOCTRINE

A troublesome recurring phenomenon with which antitrust policy must grapple is the contract between purchasers and suppliers for the sale or purchase of goods or rights, that is claimed to have an unduly exclusionary feature. In such cases, the "vertical" agreement is alleged to harm competition not because it reflects collaboration among competitors but because it excludes competitors—of the buyer, seller, or both—from offering or obtaining comparable deals and therefore tends to confer market power on one or both contracting parties. This Article deals only with the nature and effects on competition of restraints containing a predominant vertical element, assuming for purposes of analysis that the real and hypothetical cases we discuss do not spring from agreements to which only competitors are parties.¹⁵ Thus, we analyze the "horizontal" effects of "vertical" contracts.

Courts have frequently been receptive to such claims of undue, unfair, or anticompetitive exclusion as grounds upon which to invalidate vertical agreements. As a result, exclusive dealing arrangements, tying contracts, boycotts, refusals to deal, and vertical mergers are all identified by prevailing formal case law precedent as deserving close antitrust scrutiny, if not outright hostility.¹⁶ The standards for that scrutiny appear to vary with the type of conduct involved. Each type is governed by distinct legal standards, emerging from different lines of cases. Yet all these standards have been attacked on the grounds that they share two interrelated features—they seek to protect the interests of excluded competitors and they confuse harm to those competitors with harm to competition.¹⁷

A. *Disparate Doctrines for a Single Phenomenon*

Notwithstanding the divergent formal tests of illegality, cases falling within any one of these classifications of exclusion all begin and end at the

15. Where competitors agree on restraints to impose on their purchasers or suppliers, courts are likely to treat their agreement as per se unlawful. *See, e.g.*, *Interstate Circuit, Inc. v. United States*, 306 U.S. 208 (1939); *Eiberger v. Sony Corp. of Am.*, 459 F. Supp. 1276 (S.D.N.Y. 1978), *rev'd in part*, 622 F.2d 1068 (2d Cir. 1980). The principal justification for this treatment would be that to gain any efficiencies associated with vertical restraints, competitors ordinarily need not agree among themselves to impose them. Thus, the (horizontal) agreement among competitors adds an unjustifiable anticompetitive feature. Difficulties arise in applying the vertical-horizontal agreement distinction where one firm at one level of distribution enters identical agreements with two or more firms at another level. *See, e.g.*, *Klor's, Inc. v. Broadway-Hale Stores*, 359 U.S. 207 (1959); *Interstate Circuit, Inc. v. United States*, 306 U.S. 208 (1939). Our analysis accounts for this issue. *See infra* Section IV.A.3.a.

16. *See infra* Section I.A. Some empirical observations suggest that these precedents have substantial effects. For example, from 1973 to 1983, plaintiffs won 43% of all dealer termination cases that were not settled, as opposed to 25% of horizontal price fixing cases and 23% of predatory pricing cases. Salop & White, *Economic Analysis of Private Antitrust Litigation*, 74 Geo. L.J. 201 (1986).

17. *See infra* Section I.B.

same point. In each, the expressed fear is that, rather than enhancing competition by reducing costs or improving quality, the challenged practice may destroy competition by providing a few firms with advantageous access to goods, markets, or customers, thereby enabling the advantaged few to gain power over price, quality, or output. A survey of the leading cases in this area illustrates at once the wide variety of formal standards the Court has applied to exclusionary practices and the underlying identity of the antitrust policies at which the Court has aimed.

A leading exclusive dealing case, *Standard Stations*,¹⁸ concerned the legality of agreements under which Standard Oil sold gasoline to independent service stations. These independents promised not to carry other brands of gasoline,¹⁹ thus conferring on Standard a right to exclude its competitors from selling to these stations. Fearing that the exclusive dealing arrangements "effectively foreclose[d] whatever opportunity there might be for competing suppliers to attract [the independents'] patronage,"²⁰ the Supreme Court held that these agreements were shown to be illegal "simply by proof that a substantial portion of commerce [in gasoline] is affected."²¹ A demonstration "that competitive activity has actually diminished or probably will diminish" was explicitly not required.²²

The leading tie-in case remains *International Salt*,²³ in which the government challenged contracts for the lease of machines that injected salt tablets into canned products. The International Salt Company leased its machines subject to the lessee's agreement to use only International's salt tablets in the machines.²⁴ The Supreme Court condemned the agreement. It held that the antitrust laws make it "unreasonable, per se, to foreclose competitors from any substantial market."²⁵ The tie-in contracts in question fell within this principle because "[t]he volume of business affected by these contracts cannot be said to be insignificant or insubstantial and the tendency of the arrangement to accomplishment of monopoly seems obvious."²⁶

18. *Standard Oil Co. of Cal. v. United States*, 337 U.S. 293 (1949).

19. *Id.* at 296.

20. *Id.* at 314.

21. *Id.* at 299; *see also id.* at 314.

22. *Id.* at 299; *see also id.* at 314 ("evidence that competitive activity has not actually declined is inconclusive").

23. *International Salt Co. v. United States*, 332 U.S. 392 (1947).

24. *Id.* at 394.

25. *Id.* at 396. The relevant competitors were the other salt sellers.

26. *Id.* As a formal matter, the more recent case of *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2 (1984), distinguished *International Salt*, and explicitly required that, for a tying arrangement to be per se unlawful, the seller must possess market power in the tying product. 466 U.S. at 16-17. The *International Salt* Court noted that the seller had a patent on its machines, but did not assert that these patents conferred market power. 332 U.S. at 395. Thus, *Hyde* eventually may be

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In *Klor's*,²⁷ the Supreme Court held that a complaint by Klor's, an appliance store, that manufacturers and distributors of brand name appliances conspired among themselves and with Broadway-Hale, a rival appliance store, either not to sell to Klor's or to sell to it only on unfavorable terms, alleged an antitrust violation. The Court classified this behavior as a group boycott²⁸ and said that such agreements were particularly suspect because they "cripple the freedom of traders and thereby restrain their ability to sell in accordance with their own judgment."²⁹ If the facts alleged by Klor's were true, antitrust policies were violated in two ways: Klor's lost "its freedom to buy appliances in an open competitive market" and the manufacturers and distributors were "deprive[d] . . . of their freedom to sell to Klor's."³⁰

In *Associated Press*,³¹ the Supreme Court invalidated membership requirements imposed by a joint venture. The Associated Press (AP) was formed by over 1200 newspapers to collect and distribute news.³² The association's by-laws prohibited all AP members from selling news to non-members and granted each member powers to block non-member competitors from joining.³³ The Court stated that, under the Sherman Act, "[w]hile it is true in a very general sense that one can dispose of his property as he pleases, he cannot 'go beyond the exercise of this right, and by contracts and combinations, express or implied, unduly hinder or obstruct the free and natural flow of commerce.'"³⁴ The Court concluded that "the exclusive right to publish news in a given field, furnished by AP and all of its members, gives many newspapers a competitive advantage over their rivals."³⁵ Consequently, the Sherman Act required that AP news be furnished to competitors of established members without discrimination.³⁶

*Brown Shoe*³⁷ is the Supreme Court's principal treatment of vertical mergers. The Court held unlawful a merger between Brown Shoe, which accounted for about four percent of U.S. shoe production, and Kinney,

understood to have modified the tie-in rule expressed in the text. See *also supra* text accompanying notes 5-7.

27. *Klor's, Inc. v. Broadway-Hale Stores*, 359 U.S. 207 (1959). On *Klor's* awkward future after *Northwest Wholesale Stationers, Inc. v. Pacific Stationery & Printing Co.*, 105 S. Ct. 2613 (1985), see *infra* text accompanying notes 52-53.

28. 359 U.S. at 212.

29. *Id.* (quoting *Kiefer-Stewart Co. v. Seagram & Sons*, 340 U.S. 211, 213 (1951)).

30. *Id.* at 213.

31. *Associated Press v. United States*, 326 U.S. 1 (1945).

32. *Id.* at 3-4.

33. *Id.* at 9-11.

34. *Id.* at 15 (quoting *United States v. Bausch & Lomb Co.*, 321 U.S. 707, 722 (1944)).

35. *Id.* at 17 (footnote omitted).

36. *Id.* at 21.

37. *Brown Shoe Co. v. United States*, 370 U.S. 294 (1962).

which enjoyed about 1.6 percent of national retail shoe sales.³⁸ In assessing the legality of a vertical merger, the Court asserted that "an important consideration . . . is the size of the share of the market foreclosed."³⁹ That factor alone, however, would be determinative only in extreme cases in which the foreclosure is either "of monopoly [or] *de minimis* proportions."⁴⁰ For vertical mergers inside the extremes of foreclosure, like the combination of Brown Shoe and Kinney, a complete examination of the nature and purpose of the merger was necessary. After reviewing such factors at some length,⁴¹ the Court held the merger unlawful "because the trend toward vertical integration in the shoe industry, when combined with Brown's avowed policy of forcing its own shoes upon its retail subsidiaries, may foreclose competition . . . without producing any countervailing competitive, economic, or social advantages."⁴²

Although this Article primarily addresses purchaser-supplier agreements and mergers, our analytical framework also applies to exclusion cases arising from the conduct of a single firm. For example, *Lorain Journal*⁴³ is a classic case of monopolization by exclusion of competitors. In that case, the *Lorain Journal* refused to sell advertising space to customers who also wished to advertise on WEOL, a new radio station that competed with the *Journal*.⁴⁴ Although no explicit contracts were involved, the Court held that the "publisher's attempt to regain its monopoly . . . by forcing advertisers to boycott a competing radio station violated Section 2."⁴⁵

*United Shoe Machinery*⁴⁶ is another leading monopolization case. In this case, United Shoe allegedly excluded potential competitors from the market for shoe machinery by refusing to sell its machines to them. Instead, it leased them on a long term basis with (possibly large) early termination charges, gave discounts for repeat purchases and required lessees to use the machines at full capacity if work was available.⁴⁷ As Judge Wyzanski put it, "much of United's market power is traceable to the magnetic ties inherent in its system of leasing" that lead to the "unnatural barriers" to competition.⁴⁸

38. *Id.* at 302-03.

39. *Id.* at 328.

40. *Id.* at 329.

41. *Id.* at 329-34.

42. *Id.* at 334.

43. *Lorain Journal Co. v. United States*, 342 U.S. 143 (1951).

44. *Id.* at 147-49.

45. *Id.* at 152.

46. *United States v. United Shoe Mach. Co.*, 110 F. Supp. 295 (D. Mass. 1953), *aff'd per curiam*, 347 U.S. 521 (1954).

47. 110 F. Supp. at 319-23, 340.

48. *Id.* at 344-45.

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Thus, *Standard Stations*, *International Salt*, *Klor's*, *Associated Press*, *Brown Shoe*, *Lorain Journal*, and *United Shoe Machinery* each proceeds as though a different commercial practice is at issue and states a distinct general standard for assessing the antitrust legality of each practice. At the same time, these opinions (and the progeny of each) express concern with an identical, underlying antitrust policy issue: the undue, unfair, or anticompetitive exclusion of rivals by their competitors.

B. *Contemporary Criticisms of Prevailing Doctrines*

A second shared characteristic of the antitrust standards governing assertedly exclusionary conduct is that all are under heavy assault from persons arguing vigorously that the fear of exclusion is illusory or wrong-headed.⁴⁹ The terms and conditions under which goods are bought and sold, it is argued, are simply one of the ways in which firms compete. How, the critics ask, can an exclusive dealing or tying contract be labeled exclusionary when all firms may compete to obtain or offer such an agreement? Why would one firm refuse to deal with another unless it is inefficient to deal? Can a merger of a purchaser and a supplier harm competition any more severely than habitual, unilateral decisions by that purchaser and supplier to look principally to one another for purchases and sales? In short, these critics argue that what the courts have called anticompetitive exclusionary conduct is in fact efficient behavior that, if successful in increasing market shares, should be replicated by competitors rather than prevented by courts. From this critical perspective, none of the Court's opinions discussed above makes a convincing case that the challenged restraint harmed competition. Perhaps additional facts not relied upon by the Court, or other sensible antitrust values besides the goal of protecting against the acquisition or enhancement of market power might justify the Court's results. But the articulated and applied doctrines and values do not point strongly in the directions the Court has taken.

From a critical viewpoint, *Standard Oil* did not foreclose any supplier's opportunity to attract independent stations' patronage. All gasoline producers were free, and remained free, to compete for service stations by offering a better deal than did *Standard*. Unless *Standard* tied up so many

49. This section does not attempt to replicate all the criticisms that have been aimed at these doctrines but, rather, to explain the critics' basic analytical contentions and to convey some of the flavor of their rancor. In most cases, we have recast the criticisms in our own terms. For fuller elaboration of some influential critical views, in their own terms, see, for example, R. BORK, *supra* note 1, at 299-309, 330-44, 365-81; E. GELLHORN, *ANTITRUST LAW AND ECONOMICS* 200-01, 288-90, 298-300, 318-21 (2d ed. 1981); H. HOVENKAMP, *ECONOMICS AND FEDERAL ANTITRUST LAW* 205-06, 214-37, 242-45, 277-80 (1985); R. POSNER, *supra* note 1, at 171-84, 196-207; Easterbrook, *The Limits of Antitrust*, 63 TEX. L. REV. 1 (1984).

service stations that it achieved monopoly power in gasoline retailing, it could profit from its exclusive dealing arrangements only if exclusive dealing was a cheaper (i.e., more efficient) method of distributing gasoline.⁵⁰ To focus analysis on the foreclosure of other suppliers and hold irrelevant the effects on competitive activity, as the Court did, is to concentrate on a competitively neutral aspect of the exclusive dealing arrangements in disregard of the only plausible antitrust issue presented by the case.

International Salt, in this critical view, made the same mistake of ignoring the competitive effects of the challenged practice while relying on competitively neutral criteria to invalidate it. Competitors of the salt company were harmed only if they could not match a deal obviously advantageous to the canners. Consumers were not harmed by the injection of one brand of salt rather than another into canned food unless the salt used was sold at a monopoly price. Thus, the International Salt Company could not be said to have gained market power in salt simply because the "volume of business affected by [its tie-in] contracts cannot be said to be insignificant or insubstantial."⁵¹

As written, *Klor's* appears to be a parody of antitrust analysis. If General Electric agreed not to sell to Klor's, how can that be said to "cripple" GE's "freedom"? Does the Sherman Act protect General Electric against making a poor business judgment? If the agreement not to sell to Klor's was a good business judgment, then why does the Court protect Klor's "freedom to buy appliances"? Does the Sherman Act require that GE and Klor's enter into an inefficient arrangement for fear that they will otherwise "restrain their ability to sell in accordance with their own judgment"? The *Klor's* opinion ignores the constraints that competition imposes on rivals' incentives and also appears to adopt as an antitrust principle a limitless duty to deal regardless of the competitive consequences. Confronted with an opportunity to overrule or re-rationalize *Klor's*, the Court in *Northwest Stationers*⁵² did neither. Rather, the Court cited *Klor's* several times without explaining how that opinion was consistent with the conclusion that the plaintiff could not recover because it had failed to show that the buying cooperative from which it was excluded possessed market power.⁵³

The *Associated Press* opinion announces, rather than explains, a result.

50. *Standard Oil Co. of Cal. v. United States*, 337 U.S. 293, 314 (1949).

51. *International Salt Co. v. United States*, 332 U.S. 392, 396 (1947). For a different perspective on the nature of the practice at issue in *International Salt* and the antitrust issue it might pose, see Salop, *Practices That (Credibly) Facilitate Tacit Coordination*, in *NEW DEVELOPMENTS IN THE ANALYSIS OF MARKET STRUCTURE* 265 (J. Stiglitz & G. Mathewson eds. 1986).

52. *Northwest Wholesale Stationers, Inc. v. Pacific Stationery and Printing Co.*, 105 S. Ct. 2613 (1985).

53. *Id.* at 2617-21.

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The Court does not explain how excluded non-members were disadvantaged when they were at all times free to form rival associations for gathering and disseminating news. Nor does the Court explore whether the economies generated by linking firms in different towns would be disrupted by requiring an open membership policy, even in towns that already contain enough members to gather the local news that papers in other towns wish to have. Is it not preferable to stimulate competition among joint ventures rather than to encourage all rivals to join the same association, thereby enhancing any market power it may have already acquired?

Brown Shoe appears to commit virtually all the errors discussed above. Paradoxically, the Court enunciated a sensible general standard for assessing vertical mergers—that a comprehensive inquiry into purpose and effect was superior to a simple foreclosure calculus—but it then explained its conclusion that the merger was illegal in untenable terms. Four factors are cited in support of that conclusion.⁵⁴

The first, a trend toward vertical integration in the shoe industry, suggests nothing about the state of competition in the industry. Given the lack of concentration and the absence of entry barriers in both shoe manufacturing and shoe retailing, vertical integration could not unduly disadvantage any firm. If it lowered the costs of the merging firms, it could be duplicated to everyone's benefit by the merging firms' rivals.

The second factor, Brown's "avowed policy of forcing its own shoes upon its retail subsidiaries," appears to find Brown Shoe guilty of pursuing an unprofitable, rather than an anticompetitive strategy. Given the competitive structure of the industry, Brown Shoe would shoot itself in the foot if its manufacturing division were allowed to produce and "force" upon its retail division unwanted or inferior shoes.

A third factor cited by the *Brown Shoe* Court is the possibility that other firms—producers or retailers—might be foreclosed from the shoe markets. But a producer who could no longer sell to Kinney because Brown now sells to Kinney should simply have sold to Brown's former customers. What the Court calls "foreclosure" was merely a realignment of shipping patterns. These assertions will be true unless Brown expands its market share as a result of the merger. Brown can attain this goal, given its pre-merger four percent market share, however, only by offering better shoes or lower prices. If antitrust law does not actively seek such results, it should at least tolerate them.

Finally, the Court asserted that the merger would not produce any countervailing advantages. But the manner in which a firm organizes the

54. *Brown Shoe Co. v. United States*, 370 U.S. 294, 334 (1962).

production and sale of commodities is one of the ways in which competition in the market for those commodities occurs. Thus, the merger was one method by which Brown and Kinney could seek to increase their respective abilities to produce and sell shoes. Both firms had small market shares and neither was protected by entry barriers, so neither could insulate itself from competition by their merger. Brown's "countervailing competitive . . . advantage" thus was apparent to anyone who did not equate the realignment of shipping patterns with foreclosure, assume that the company would benefit from forcing unwanted shoes upon itself, or confuse a trend to vertical integration with a tendency toward increased market power.

The analysis in *United Shoe Machinery* is similarly unclear. The "magnetic ties" of United's leases could well be a product of United's ability to satisfy customers' needs at a low price. United was not the only firm to lease its machines; that was the "long-standing tradition" in the industry.⁵⁵ If rivals were foreclosed, the villain apparently was competition on the merits.

Common to all these criticisms is the argument that foreclosure is being treated as a basis for illegality when, in fact, it is merely the realignment of shipping patterns or the inevitable result of superior, efficient, competitive behavior. Further, the prevailing standards in these assertedly disparate areas appear to concentrate on competitors' commercial interests rather than the public interest in competition. The Court's concern appears to be whether successful competitors have fairly shared the market's spoils with their less productive rivals, not whether the targets of antitrust inquiry have successfully devised tactics that create or enhance their discretion to raise price.⁵⁶

55. *United States v. United Shoe Mach. Co.*, 110 F. Supp. 295, 314 (D. Mass. 1953), *aff'd per curiam*, 347 U.S. 521 (1954).

56. To many readers, these criticisms—particularly of *Klor's* and *Associated Press*—may seem unduly harsh. *Klor's* may well be understood as involving an agreement among competing appliance manufacturers as to which customers the manufacturers would sell, with the Court simply imposing on the alleged conspirator-rivals the burden of proving an efficiency justification. See E. GELLHORN, *supra* note 49, at 197-98; R. BORK, *supra* note 1, at 331-32. *Associated Press* may, similarly, only prevent firms with market power from conspiring to erect virtually impenetrable entry barriers. Although the Supreme Court did not rest its affirmation on this ground, the District Court adopted this view of the case. *United States v. Associated Press*, 52 F. Supp. 362, 371-73 (S.D.N.Y. 1943); see also R. BORK, *supra* note 1, at 340 ("[P]erhaps AP's power was so great that a denial of access to AP news had the effect of suppressing competition generally, but that was the precise issue defendants wanted to try and Justice Black said need not be tried.").

We do not reject as illogical the premises of these interpretations. But they are interpretations, not the specific syllogisms employed in the Court's opinions. In the realm of exclusionary issues, it is the Court's doctrine, more than its precise results, that has failed to leave a coherent analytic framework for subsequent cases.

II. TOWARD A UNIFIED STANDARD FOR ASSESSING EXCLUSION CLAIMS

The criticisms sketched above, in their most extreme form, suggest that antitrust law should permit all "vertical restraints"—limitations on the terms or conditions under which purchasers and suppliers will deal, imposed without horizontal collusion among competing purchasers or suppliers—and all "vertical mergers"—corporate combinations that do not actually or potentially compete with each other but do have a purchase-supply relationship. From a critical perspective, such agreements or combinations may harm competitors, but cannot diminish the vigor of competition. Most courts and commentators have not yet subscribed to such views; but the critics' assaults have rendered the prevailing doctrines respecting many of these practices untenable.

In short, antitrust policy with respect to allegedly exclusionary behavior is presently inarticulate. Courts and enforcement agencies sense that certain vertical restraints have the capacity to generate monopoly power or to facilitate its exercise. However, courts and enforcers lack a coherent theory that enables them to explain how such results may be attained and a reliable description of the conditions under which these outcomes are most likely to occur. Consequently, none of the doctrines canvassed above requires rigorous proof that a challenged restraint is anticompetitive or proof of a set of facts that are reasonably reliable indicators that the practice entrenches market power or facilitates its exercise.

This Article articulates an explicit, coherent analysis for exclusionary conduct cases. Our analysis does not take issue with the criticisms of prevailing, formal doctrine.⁵⁷ The leading Supreme Court cases do appear to announce standards of illegality that are not consistent with a policy of protecting and promoting competition. Indeed, these formal standards often may work at cross purposes with that policy, as the critics contend. Nevertheless, a sensible antitrust law need not treat as lawful all exclusive dealing arrangements, tie-ins, vertical mergers, refusals to deal, and boycotts. We present an antitrust theory that explains how a wide variety of exclusionary restraints can, under fairly strict conditions, create or enhance market power. We also offer guidelines to assist enforcement agencies and courts in developing reliable, objective, administrable tests to indicate when such anticompetitive results are probable and, therefore, which specific conditions should be present before the arrangement is condemned.

To summarize, a firm may gain the ability to raise price by contracting

57. See *supra* Section I.B. As one author has put it, our criticism is from "inside the Chicago School model." Hovenkamp, *supra* note 1, at 255-83.

with input suppliers⁵⁸ for the suppliers' agreements not to deal with the purchasing firm's competitors on equal terms. We call these agreements "exclusionary rights contracts." Under certain conditions, such contracts for exclusionary rights can have the effect of raising rivals' costs by restraining the supply of inputs available to rivals, thereby giving the purchaser power to raise prices in its output market. Courts should inquire whether the firm that purchases an exclusionary rights agreement thereby places its competitors at such a cost disadvantage that the purchaser can then exercise monopoly power by raising its price.

There have been a number of criticisms made of the plausibility of predatory pricing, but these arguments do not apply to the exclusionary strategies we analyze. Raising rivals' costs can be a particularly effective method of anticompetitive exclusion. This strategy need not entail sacrificing one's own profits in the short run; it need not require classical market power as a prerequisite for its success; and it may give the excluding firm various options in exercising its acquired power. By embedding a collusive agreement in a vertical contract that raises input prices by restraining sales to rivals, the firm reduces coordination costs, making it more efficient at preventing cheating and distributing the gains from collusion. Thus, these strategies involve creating additional horizontal market power through the mechanism of vertical contracts. As a result, one cannot assume that rivals necessarily have available counterstrategies or that suppliers necessarily will find it unprofitable to grant exclusionary rights. Nor can one dismiss these claims of anticompetitive effect with the argument that there is only a single monopoly profit and that "leverage" is impossible. These strategies involve markets that are not single firm monopolies, and the strategies entail contracts with multiple suppliers. Moreover, excluded rivals may choose not to contest the strategy, preferring instead to live under the shelter of the excluding firm's high prices.⁵⁹

An example will clarify the techniques involved. In our analysis, were Standard Oil bent on acquiring monopoly power in selling gasoline, perhaps the company might have done so successfully through its exclusive dealing arrangements. These contracts may not have improved the efficiency of Standard's retailing service, but instead left its gasoline refining

58. Exclusionary rights contracts may be formed with customers as well as suppliers. See *infra* text following note 60.

59. In the current jargon of economists, strategies to raise rivals' costs are more "credible" than predatory pricing. See Easterbrook, *Predatory Strategies and Counterstrategies*, 48 U. CHI. L. REV. 263 (1981); Salop & Scheffman, *Raising Rivals' Costs*, 73 AM. ECON. REV. (Papers and Proceedings) 267 (1983). For articles anticipating our fuller elaboration of the theory of exclusion, see DeLong, *The Role, If Any, of Economics in Antitrust Enforcement*, 12 SW. U.L. REV. 298 (1981); Hovenkamp, *supra* note 1, at 274-80; Williamson, *Antitrust Enforcement: Where It's Been, Where It's Going*, 27 ST. LOUIS U.L. REV. 289 (1983).

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competitors facing a remaining group of retail service providers small enough to collude effectively. This result would raise the costs of Standard's competitors, relative to Standard's costs, and give Standard the option to raise price, expand its market share, or do both, even if Standard were a "price taker." This tactic does not necessarily require that Standard sacrifice its profitability, even in the short run, and might even go uncontested by its rivals if they believed Standard would be an effective price setter. The strategy requires only that entry into gasoline retailing be difficult and that retailers are sufficiently disorganized that, before the exclusive dealing arrangement, they cannot collude successfully on their own. Moreover, the tactic can succeed even if Standard faces more than a few competitors, so long as it raises the costs of enough of them.⁶⁰

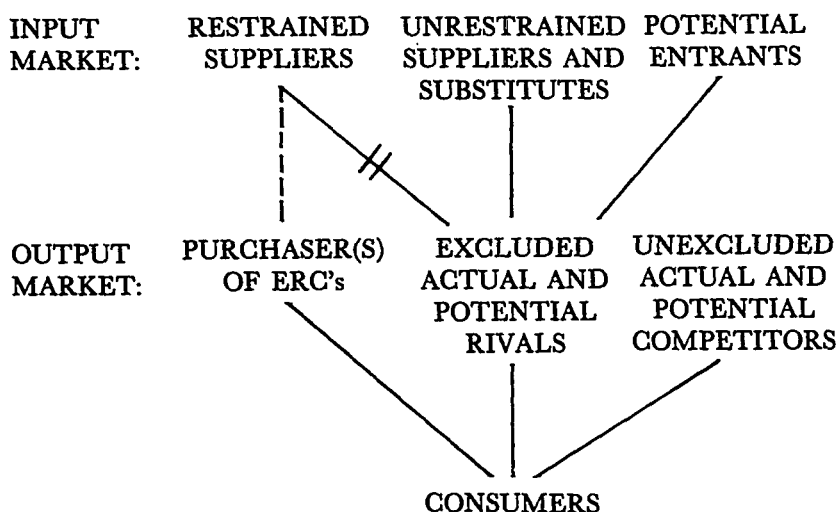
Our theory of exclusionary rights can be translated into an administrable and enforceable set of standards. Of course, such standards would sacrifice accuracy and flexibility to some extent as a necessary cost of obtaining swifter and less idiosyncratic results. Nevertheless, economic analysis can describe the conditions under which a strategy of raising rivals' costs by purchasing exclusionary rights enables the purchaser to obtain market power. To return to the *Standard Stations* example, if entry into gasoline retailing were easy, or if the retailers not committed to Standard were numerous and unorganized, then Standard could not, by obtaining exclusionary rights from a few retailers, increase the probability that remaining retailers would collude against Standard's competitors. Or, if Standard could not repulse counterstrategies by its rival refiners, then it could gain nothing from attempting exclusive dealing as a means of seeking market power. These and other considerations may be dealt with by

60. As described above, *see supra* notes 18–22 and accompanying text, the *Standard Stations* case—like many other cases turning on claims of anticompetitive exclusion—was resolved by a standard much less stringent than the two-part test advocated here. Thus, it is quite impossible to say with any assurance how frequently the strategy of gaining monopoly power by raising rivals' costs is employed. Certainly, it appears that Alcoa employed the practice at an early stage in the firm's development. *See infra* text accompanying note 61. Many cases involving asserted abuse of government processes are raising rivals' costs cases. *See infra* note 62. Several other key antitrust cases—including *Associated Press*, *see supra* note 56, *Terminal Railroad*, *see infra* notes 80–82 and accompanying text, *Interstate Circuit*, *see infra* notes 96–99 and accompanying text, and the later *Alcoa* case, *see infra* note 61 and accompanying text—appear to condemn strategic conduct of this sort without employing the precise analysis set out in this Article. Recent cases in which exclusionary rights issues have been raised include *AT&T*, the Civil Aeronautics Board rulemaking on computer reservations systems, and *Ball Memorial Hospital*. *See* *MCI Communications Corp. v. American Tel. & Tel.*, 708 F.2d 1081, 1131 (7th Cir. 1983) (denying competitors equal access to local telephone network); *United Air Lines v. Civil Aeronautics Bd.*, 766 F.2d 1107 (7th Cir. 1985) (Posner, J.) (biasing information about delisting and price discriminating against rivals in computer reservations systems owned by large airlines can disadvantage rivals in market for air travel); *Ball Memorial Hosp. v. Mutual Hosp.*, 784 F.2d 1325, 1338 (7th Cir. 1986) (Easterbrook, J.) (Blue Cross discount on hospital services can violate Section 2 of Sherman Act by shifting costs to rivals, if hospitals must break even and Blue Cross has market power). Thus, although we cannot prove that the practice is widespread, we see no reason to doubt that it occurs.

standards that measure the plausibility of an assertion that a contractual agreement has an anticompetitive exclusionary effect.

The *Standard Stations* example reveals another concept that is fundamental to our analysis, namely, that in analyzing vertical relationships, “buyer” and “seller” are often imprecise terms. In conventional imagery, Standard would be portrayed as “upstream,” at the top of the vertical relationship with gasoline retailers “downstream.” In this context, Standard sells gas to service stations, which use that gasoline as an “input” into their business of re-selling gas to consumers. As an analytical matter, however, it is sometimes appropriate to describe the retailers as the “upstream” firms, supplying retailing services (sites, pumps, attendants) as inputs to “downstream” refiners like the Standard Oil Company, which employ these retail services in the business of selling gas to automobile owners. Contracts for the sale of goods to persons other than the ultimate consumers often exhibit these dual features. To assess claims of anticompetitive exclusion, the proper question is not which firm is a buyer and which a seller, but whether one (or both) is the purchaser of an exclusionary right that raises rivals’ costs and gives the purchaser power over price in its market.

BASIC ANALYTIC FRAMEWORK



The diagram entitled "Basic Analytic Framework" presents a more comprehensive, stylized representation of the phenomena we have in mind. In all these kinds of cases, certain firms (here, those in the middle level of the diagram) compete to sell to consumers (bottom level) and, to do so, also purchase inputs from a market of input suppliers (top level). When one or more firms ("Purchaser(s)" in the diagram) obtain exclusionary rights contracts ("ERC's") from one or more input suppliers ("Restrained Firms"), the purchaser's competitors who are the targets of these agreements ("Excluded Rivals") are denied that source of supply or receive it only at discriminatory rates (represented by the cross-hatched diagonal line in the diagram). These excluded rivals will seek to turn to any unrestrained suppliers, potential entrants, or producers of substitute inputs to prevent their costs from rising. Under certain conditions, these efforts will not prevent a material increase in excluded rivals' costs. When this result occurs, the excluded rivals no longer constrain the purchasing firm from pricing above the competitive level. Of course, consumers will attempt to avoid a price increase by turning to any unexcluded rivals, potential entrants, or producers of substitute consumer products. Under certain conditions, however, these efforts will not prevent the price consumers must pay from rising above the competitive level that existed before the implementation of the exclusionary rights agreement.

III. EXCLUSIONARY RIGHTS

A. *The Nature of Exclusionary Rights*

The types of antitrust cases examined above all center around the acquisition of interests that may be termed exclusionary rights. Exclusionary rights contracts can exist in a variety of forms. At one extreme, the agreement involves only the purchase of an exclusionary right; no goods or other commodities are to be exchanged. For example, Alcoa reportedly purchased exclusionary covenants from power companies from which Alcoa did not purchase electricity. The contracts involved only the companies' promises not to sell electricity to other aluminum producers, not the sale of electricity to Alcoa.⁶¹ In other words, Alcoa purchased only market power, not electric power. Such contracts are "naked" exclusionary rights agreements. At the other extreme, most supply contracts involve only the sale of some units of an input to the buyer. Its competitors are not ex-

61. *United States v. Aluminum Co. of Am.*, 44 F. Supp. 97, 121-44 (S.D.N.Y. 1941), *aff'd in part, rev'd in part*, 148 F.2d 416 (2d Cir. 1945). The trial judge's discussion of this issue is confusing because he does not carefully distinguish between allegations that Alcoa purchased more electricity (or "water power") than it reasonably needed and that Alcoa obtained the ability to foreclose competitors from plants from which it took no electricity. The latter appears to be the case with respect to at least some of Alcoa's transactions. *Id.* at 124-38.

pressly excluded from purchasing other units of the input from the same seller. Yet, of course, other buyers necessarily are excluded from access to the particular units sold. Implicitly, at least, a type of exclusionary right is acquired.

Contested cases at either extreme are exceedingly rare. Aside from *Alcoa* and many cases claiming misuse of government processes,⁶² a naked exclusionary rights contract is not mentioned, to our knowledge, in any reported antitrust case. Nor, to our knowledge, has any court ever held illegal an agreement for the purchase of some units of a good, where all the units are used or consumed by the purchaser, simply because those units are therefore not available to other prospective purchasers.

Between these extremes, however, a wide variety of contracts contain exclusionary rights provisions. Exclusive dealing arrangements, tying contracts, group boycotts, and refusals to deal all commonly involve an exclusionary right.⁶³ Further, the legality of a vertical merger usually is tested by assuming that the merged purchasing firm has acquired an exclusionary right in the supplying firm's products and asking how the exercise of that right may affect competition in both the input and output markets.⁶⁴

B. *The Effects of Exclusionary Rights*

Measured by the consumer welfare standard, exclusionary rights may be completely innocuous, neither harming competition nor furthering it.⁶⁵ In many cases, however, these rights will have discernible procompetitive or anticompetitive effects. Indeed, the same practice may generate both types of effects.

Exclusionary rights may generate procompetitive benefits by reducing the parties' costs or creating a new product. For example, an exclusionary rights purchaser may increase its certainty, and therefore reduce its cost,

62. See, e.g., *Eastern R.R. Presidents Conf. v. Noerr Motor Freight, Inc.*, 365 U.S. 127 (1961) (challenging conspiracy by railroads to increase truckers' costs by influencing state legislation).

63. When International Salt Company tied the sale of salt to the lease of salt-injecting machines, it acquired a right to exclude other salt makers from selling to International's lessees. *International Salt Co. v. United States*, 332 U.S. 392, 394-95 (1947), discussed *supra* notes 23-26. Standard Oil's agreements with gasoline stations gave Standard the right to prevent the stations from selling other brands of petroleum products. *Standard Oil Co. of Cal. v. United States*, 337 U.S. 293, 296 (1949), discussed *supra* notes 18-22. The agreement of which Klor's complained apparently gave Broadway-Hale the right to prevent several appliance manufacturers from selling to Klor's or to require them to sell to Klor's on disadvantageous terms. *Klor's, Inc. v. Broadway-Hale Stores*, 359 U.S. 207, 209 (1959), discussed *supra* notes 27-30. Similarly, each member of the Associated Press venture acquired a right to exclude its competitors from obtaining news gathered by other AP members. *Associated Press v. United States*, 326 U.S. 1, 10-13 (1945), discussed *supra* notes 31-36.

64. For example, as noted above, the *Brown Shoe* Court analyzed the merger as though Brown had acquired the right to prevent Kinney from selling its retail services to other shoe manufacturers. *Brown Shoe Co. v. United States*, 370 U.S. 294, 331-32 (1962), discussed *supra* notes 37-42.

65. We discuss here effects on competition, not only effects on competitors. The latter issue is addressed below. See *infra* Section IV.B.3.

of being able to obtain an assured supply of inputs.⁶⁶ The purchasing firm may associate its product with that of the supplier, thereby easily and clearly identifying the joint product in consumers' minds or facilitating joint promotional campaigns.⁶⁷ Exclusivity may reduce a manufacturer's costs of maintaining the reputation and quality of its product after title and control have passed to the purchaser or may prevent free-riding by competitors.⁶⁸ Finally, the exclusionary right may be the unavoidable outgrowth of a productive joint venture, permitting the parties each to manufacture goods that are best marketed together.⁶⁹

The acquisition of exclusionary rights also may be a particularly effective strategy for acquiring monopoly power.⁷⁰ A vertical agreement or merger may confer on the purchaser a power to raise price above the competitive level by effectively raising the costs of the purchaser's rivals.⁷¹ Where both these events occur—i.e., the competitors' costs increase and the purchaser thereby gains the ability to raise price—any version of the consumer welfare standard is violated. Absent overriding efficiencies, the purchaser's ability to place an artificial restriction on output is anticompetitive.

Were antitrust courts and enforcement authorities to focus on these elements, they could analyze a wide variety of superficially disparate antitrust claims under a single set of standards. The following two sections explain how these anticompetitive results may occur, how the purchase of exclusionary rights may effectively raise rivals' costs, and how those cost increases may leave the acquiring firm with the power to raise its price. First, we describe a number of methods by which these anticompetitive results can be achieved. Second, borrowing from similar work in horizontal merger analysis, we describe how agencies and courts could identify the key elements of market structure and firm behavior that are conducive

66. It is perhaps significant that Kinney, a major shoe retailer, may have agreed to merge with Brown Shoe in connection with its move into higher income neighborhoods and a higher quality line of products. *Brown Shoe*, 370 U.S. at 304 n.8 (quoting testimony of Brown Shoe's president).

67. Such efficiencies might well explain the exclusionary rights obtained in *Standard Stations*, discussed *supra* notes 18-22, 63.

68. See, e.g., R. BORK, *supra* note 1, at 378-80. Such efficiencies might explain the arrangements at issue in *Klor's*.

69. For example, the *Associated Press* arrangement allowed the venturers to market jointly the news stories produced by the various members.

70. In such cases, some balance must be struck between the relative probabilities that the practice at issue will have anticompetitive or procompetitive effects and their likely magnitudes. Our principal purpose is to explain how enforcement authorities and courts can assess the anticompetitive potential of exclusionary rights, for these rights usually are, at worst, competitively neutral. See *infra* Section V. In a later section, we also seek to initiate the inquiry into treatment of the claims that anticompetitive effects of exclusionary practices may be outweighed by redeeming procompetitive or efficiency benefits. See *infra* Section VII.C.

71. By a vertical agreement, we mean an agreement between firms that are in the position of buyer and seller. See *supra* notes 4, 15 and accompanying text. The supplier may share in the purchaser's increased profits and may also obtain the power to raise price to the purchaser's rivals.

to successful exclusionary strategies. We describe how they can develop objective standards for evaluating the extent to which such factors are present in specific industries. Using these techniques, antitrust authorities could estimate, without prolonged and open-ended trials, the likelihood that particular exclusionary rights agreements in particular cases have these anticompetitive effects.⁷²

IV. ACHIEVING ANTICOMPETITIVE EFFECTS BY DEALING IN EXCLUSIONARY RIGHTS

A. *Raising Rivals' Costs*

We can identify four distinct methods by which an exclusionary rights contract can raise the costs of the purchaser's rivals. With all these methods, the agreement raises rivals' costs by "foreclosure": more precisely, by restricting the supply available to rivals of a key input without similarly restricting the amount available to satisfy the purchaser's demand. Two of these methods succeed by restricting rivals' supply directly. They are techniques of direct foreclosure. The others induce suppliers to restrict output in response to incentives created by the exclusionary rights agreement. They are methods of facilitating tacit or express collusion that lead to foreclosed or restricted supply.

None of these techniques is novel to antitrust law or industrial organization economics.⁷³ Indeed, most have been at the root of one or more

72. These sections thus progressively put more flesh on the structured inquiry that we advocate for antitrust analysis of exclusion claims.

73. The economic analysis in this section represents a synthesis of a large number of economics articles on the subjects of cost raising and rent-seeking strategies generally, as well as several articles on vertical integration, vertical foreclosure, exclusive dealing and special interest regulation. For a sampling of these articles on cost raising and rent-seeking generally, see S. SALOP & D. SCHEFFMAN, *MULTI-MARKET STRATEGIES IN A DOMINANT FIRM INDUSTRY* (Federal Trade Commission, Bureau of Economics, Working Paper No. 100, 1984) (revised as *COST RAISING STRATEGIES*, FTC Bureau of Economics Working Paper No. 146, 1986); Caves & Porter, *From Entry Barriers to Mobility Barriers: Conjectural Decisions and Contrived Deterrence to New Competition*, 91 Q.J. ECON. 241 (1977); Hovenkamp, *supra* note 1; Nelson, *Increased Rents from Increased Costs: A Paradox of Value Theory*, 65 J. POL. ECON. 387 (1957); Ordover, Sykes & Willig, *Nonprice Anticompetitive Behavior by Dominant Firms Toward the Producers of Complementary Products*, in *ANTITRUST AND REGULATION* 115-30 (F. Fisher ed. 1985); Ordover & Willig, *An Economic Definition of Predation: Pricing and Product Innovation*, 91 YALE L.J. 8 (1982); Posner, *Theories of Economic Regulation*, 5 BELL J. ECON. 335 (1974); Rogerson, *A Note on the Incentive for a Monopolist To Increase Fixed Costs as a Barrier to Entry*, 99 Q.J. ECON. 399 (1984); Salop & Scheffman, *supra* note 59; Sharfstein, *A Policy To Prevent Rational Test-Market Predation*, 15 RAND J. ECON. 229 (1984); Tullock, *The Welfare Costs of Tariffs, Monopolies, and Theft*, 7 W. ECON. J. 224 (1967); Williamson, *Wage Rates as Barriers to Entry: The Pennington Case in Perspective*, 82 Q.J. ECON. 85 (1968).

Many scholars have analyzed cost raising strategies in a regulatory context. These analyses often can be helpful in understanding similar strategies in unregulated markets. See, e.g., R. BORK, *supra* note 1, at 347-64; Maloney & McCormack, *A Positive Theory of Environmental Quality Regulation*, 25 J.L. & ECON. 99 (1982); Oster, *The Strategic Use of Regulatory Investment by Industry Subgroups*, 20 ECON. INQUIRY 604 (1982); Salop, Scheffman & Schwartz, *A Bidding Analysis of Special*

Raising Rivals' Costs

litigated cases the results of which have not been denigrated by those who espouse the single-focus consumer welfare approach to antitrust law. Those cases, of course, involved collaboration among competitors (i.e., horizontal restraints) to raise rivals' costs.

What is novel here is, first, the recognition that these same results also may follow from agreements solely between purchasers and suppliers and, second, the claim that virtually all antitrust issues not involving collaboration (or merger) among competitors are best analyzed by asking whether they unjustifiably confer on one party the power to raise price by raising its rivals' costs. To place this argument in context, one must understand the assertions to which it reacts. Thus, we first review the debate surrounding the present formal doctrine of exclusionary vertical restraints and then explain what the critics have overlooked.

1. *Discredited Foreclosure Theory*

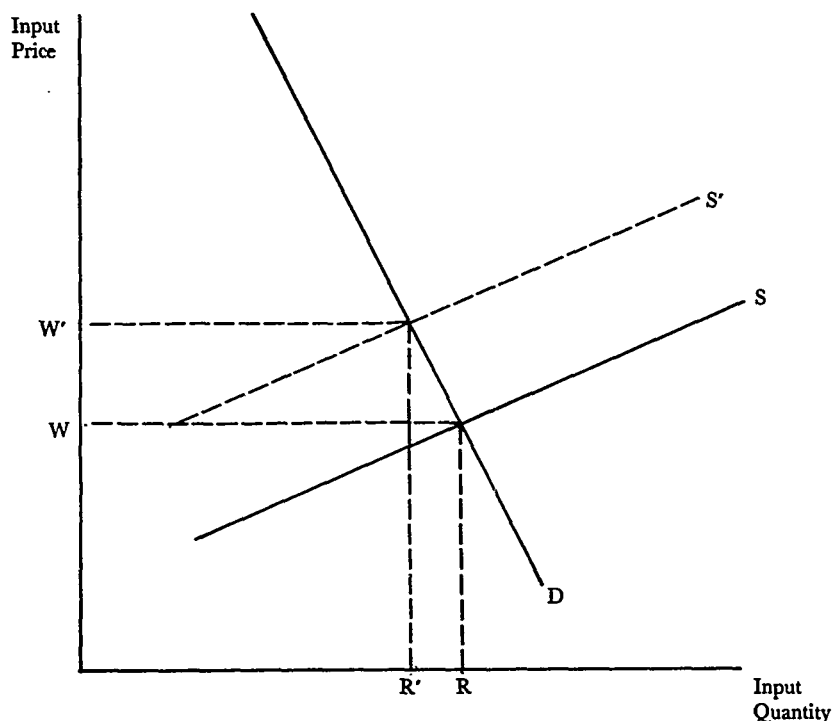
Initially, antitrust enforcers and courts seemed to claim that the vice of harmful vertical restraints was that they foreclosed supply. For example, an exclusive dealing contract between Input Seller I and Buyer B denied the production of I to B's competitors, disadvantaging them relative to B.

Figure 1 illustrates this argument. Before the exclusive dealing arrangement, B and its rivals pay a price W for the input supplied by I and I's competitors, as determined by the interaction of the buyers' demand (D) and the sellers' supply (S). After the exclusive dealing arrangement is in place, I's inputs are no longer available, and this "shortage" in supply (S') drives the price to B's rivals to a higher price W' . This view of foreclosure as a practice that inevitably disadvantages unintegrated firms appears to be the principal concept underlying the results and rationales in

Interest Regulation: Raising Rivals' Costs in a Rent Seeking Society, in FEDERAL TRADE COMMISSION, *THE POLITICAL ECONOMY OF REGULATION: PRIVATE INTERESTS IN THE REGULATORY PROCESS* 102 (1984).

For some analyses of vertical integration, foreclosure, and vertical restraints, see M. PORTER, *COMPETITIVE STRATEGY* 300 (1980); M. SALINGER, *VERTICAL MERGERS AND MARKET FORECLOSURE* (Columbia Univ. Graduate School of Business, First Boston Working Paper Series No. FB-84-17, 1985); Fisher, *Can Exclusive Franchises Be Bad?*, in *ANTITRUST AND REGULATION*, *supra*, at 153 (1985); Waterson, *Vertical Integration, Variable Proportions and Oligopoly*, 92 *ECON. J.* 129 (1982); Westfield, *Vertical Integration: Does Product Price Rise or Fall?*, 71 *AM. ECON. REV.* 334 (1981); Warren-Boulton, *Vertical Control with Variable Proportions*, 82 *J. POL. ECON.* 783 (1974); White, *Antitrust and Video Markets: The Merger of Showtime and The Movie Channel as a Case Study*, in *VIDEO MEDIA COMPETITION: REGULATION, ECONOMICS AND TECHNOLOGY* 338 (E. Noam ed. 1985); White, *Vertical Restraints in Antitrust Law: A Coherent Model*, 26 *ANTITRUST BULL.* 327 (1981).

FIGURE 1



important Supreme Court opinions condemning exclusive dealing arrangements,⁷⁴ tie-ins,⁷⁵ and vertical mergers.⁷⁶

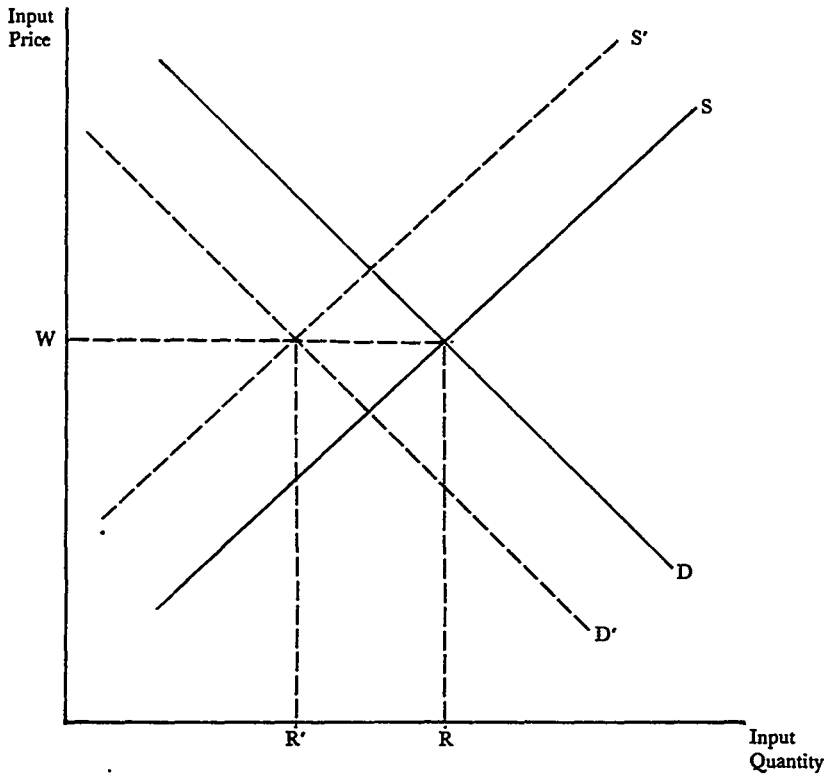
That line of reasoning, however, is fatally flawed. Figure 2 demonstrates why. The Court's view of foreclosure appears to capture only half

74. See *Standard Oil Co. of Cal. v. United States*, 337 U.S. 293, 314 (1949) ("It cannot be gainsaid that observance by a dealer of his requirements contract with Standard does effectively foreclose whatever opportunity there might be for competing suppliers to attract his patronage."); *supra* notes 18-22 and accompanying text.

75. See *International Salt Co. v. United States*, 332 U.S. 392, 396 (1947) ("The volume of business affected by these contracts cannot be said to be insignificant or insubstantial and the tendency of the arrangement to accomplishment of monopoly seems obvious."); *supra* notes 23-26 and accompanying text.

76. See *Brown Shoe Co. v. United States*, 370 U.S. 294, 324 (1962) ("Every extended vertical arrangement by its very nature, for at least a time, denies to competitors of the supplier the opportunity to compete for part or all of the trade of the customer-party to the vertical arrangement."); *supra* notes 37-42 and accompanying text.

FIGURE 2



of the picture. If I's inputs are no longer available to B's rivals, it may also be the case that B is no longer adding to the demand for inputs from I's competitors. The exclusive dealing arrangement (or tie-in sale or vertical merger) may lead to a realignment of purchase patterns among firms, but has no necessary tendency to raise rivals' costs. Indeed, in the case depicted in Figure 2, price remains the same, as the loss of I's supply (represented by a shift from S to S') is cancelled by the disappearance of B's demand (the shift from D to D').

The only effect of the exclusive dealing arrangement (or other vertical restraint) in the case illustrated is to remove from the open market a quantity of input resources (R-R') equivalent to that amount now supplied by I and purchased by B under their contract. Far from being presumptively harmful, the critics of the Court's simple foreclosure view contend, such a result has no probable anticompetitive effect and therefore is

presumptively procompetitive.⁷⁷ They assume that I and B would choose to avoid reliance on the market mechanism only if that choice lowered the costs of transferring I's input. If that also lowers the effective cost to B, consumer welfare would be furthered by asking B's rivals to emulate the vertical arrangement, rather than by permitting them to persuade judges to hold it illegal.

In our view, that critique is often correct, but not nearly universally so. Where rivals' ability to substitute costlessly is limited, exclusionary rights can injure consumers. In two non-trivial instances, direct foreclosure can disadvantage rivals by irretrievably raising their costs, thereby harming consumers by giving purchasers discretion over price. In two other types of cases, identically harmful results can occur as a result of foreclosure of supply stemming from changes in effective market structure (and, therefore, in the pricing incentives of input suppliers) that the exclusionary right brings about. Foreclosure theory may still be correct, but not for the reasons originally advanced.

2. *Legitimate Theories: Raising Rivals' Costs by Foreclosing Supply*

a. *Bottleneck*

The simplest and most obvious method by which foreclosure of supply can raise rivals' costs is the purchaser's obtaining exclusionary rights from all (or a sufficient number of) the lowest-cost suppliers, where those suppliers determine the input's market price.⁷⁸ Competitors of the purchaser experience a cost increase as they necessarily shift to higher cost suppliers or less efficient inputs.

Antitrust literati know this as the "Bottleneck" or "essential facilities" problem.⁷⁹ This Bottleneck method is precisely the technique employed collectively by a group of vertically integrated firms in the *Terminal Railroad* case.⁸⁰ In that case, a group of railroad operators obtained an important input: the only railroad bridges across the Mississippi River at St. Louis.⁸¹ The railroad operators also obtained a promise from the bridge owners (here, the railroad operators themselves) that the bridges could be made available to other, non-owner, railroads on discriminatory terms.⁸²

77. See, e.g., R. BORK, *supra* note 1, at 304-09.

78. In more technical terms, the industry supply curve need not be discontinuous, but it must have a less perfectly elastic region. Absent the exclusionary rights agreement, however, low cost suppliers have sufficient available capacity so that demand does not push price to the higher levels.

79. See, e.g., Note, *supra* note 14. The phenomenon appears to correspond also to the concept of "qualitative foreclosure" alluded to in the exclusive dealing cases.

80. *United States v. Terminal R.R. Ass'n*, 224 U.S. 383 (1912).

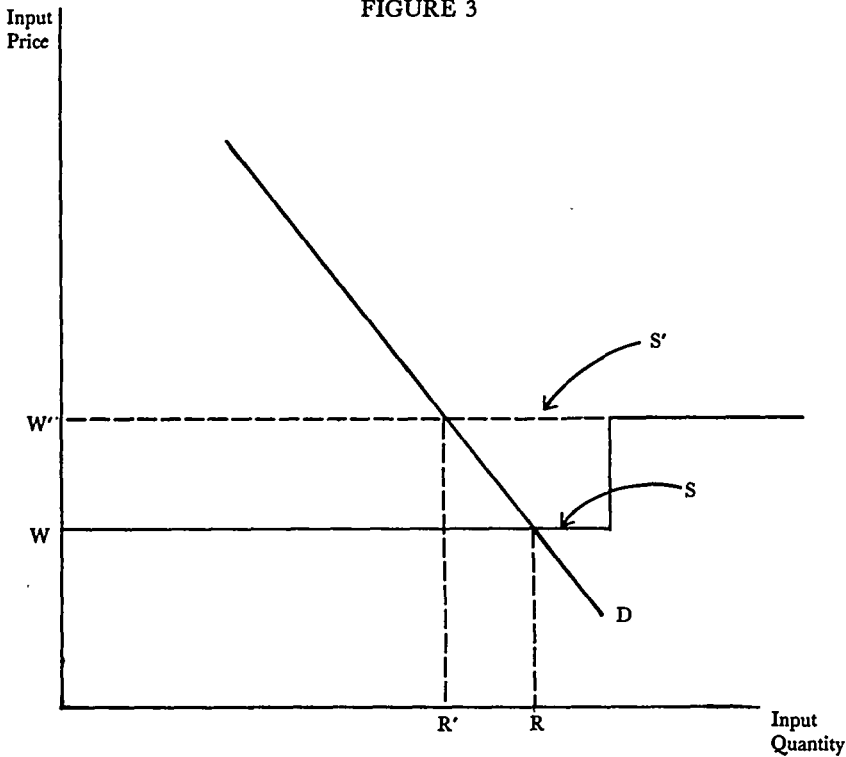
81. *Id.* at 391.

82. *Id.* at 399-400.

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Excluded railroads could avoid this risk only by building their own bridges or ferries.

FIGURE 3



Bottleneck

Figure 3 illustrates the Bottleneck method. Before certain purchasers obtain exclusionary rights to the input available to rivals, supply (S) and demand (D) interact to yield a price of W . Purchase of rights to exclude rivals from all the low-cost supply of the input reduces supply to S' . Because only higher-cost sellers can satisfy the remaining rivals' demand (D), price increases to W' and quantity falls from R to R' .

Figure 3 reflects agreements with suppliers in which the purchaser obtains solely the naked right to exclude rivals from the inputs without a requirement that it purchase quantities of the input as well. We refer to such an agreement as a "naked" exclusionary right.⁸³ Figure 3 also reflects the extreme case in which the purchaser obtains the right to all the low-cost input, and additional supplies can be produced only at a dis-

83. Many exclusionary rights agreements are not naked but are bundled with the purchase of inputs by the firm. In that case, demand would shift back. (As expressed in Figure 3, the demand curve would shift to the left. However, the input price would still rise to W' .)

cretely higher cost. This is the limiting case of the method of "Real Foreclosure" analyzed next.

b. *Real Foreclosure*

Foreclosure also can raise rivals' costs when the purchaser acquires an exclusionary right over a representative portion of the supply, withholding that portion from rivals and thereby driving up the market price for the remainder of the input still available to rivals.⁸⁴ Antitrust lingo often dubs this method a "supply squeeze" or "quantitative foreclosure," because the emphasis is not on the unique quality of the input foreclosed, but rather is on the sheer amount. We call it the Real Foreclosure technique to denote that the purchaser gains actual, effective control of the inputs to restrict potential supply and to raise price.⁸⁵

In a leading monopoly case,⁸⁶ Alcoa was accused of having employed this Real Foreclosure tactic on two separate occasions. First, when Alcoa's patents on the manufacture of aluminum expired after the turn of the century, Alcoa maintained its monopoly in part by obtaining promises from some electrical utilities not to supply power to any other aluminum manufacturer.⁸⁷ The price of electricity to Alcoa's potential rivals would increase as they bid for the remaining scarce supply.⁸⁸ The right acquired was a naked exclusionary right; Alcoa apparently did not purchase any electricity from these utilities.⁸⁹ Alcoa also involved a more controversial type of Real Foreclosure. Judge Learned Hand concluded that, wholly apart from its covenants with electrical utilities, Alcoa had illegally maintained its monopoly by repeatedly expanding its capacity before demand for aluminum increased.⁹⁰ One interpretation of this charge against Alcoa is that it used a variant of the Real Foreclosure technique that we denote as Overbuying. Alcoa's excess accumulation of scarce inputs, notably bauxite, left potential new aluminum manufacturers facing the prospect that their bids would significantly drive up the prices of the remaining

84. Thus, Bottleneck is a special case of Real Foreclosure in which all the lowest cost (lowest price) input is foreclosed from rivals.

85. Obviously, some barriers to entry and expansion must exist for price to rise.

86. *United States v. Aluminum Co. of Am.*, 148 F.2d 416 (2d Cir. 1945).

87. *Id.* at 422.

88. An alternative explanation for Judge Hand's—and Alcoa's lawyers'—apparent belief that the practice was obviously harmful is that Alcoa had employed the Bottleneck technique, tying up the lowest cost producers of a key input. This example illustrates the convergence of the two variations on a single method.

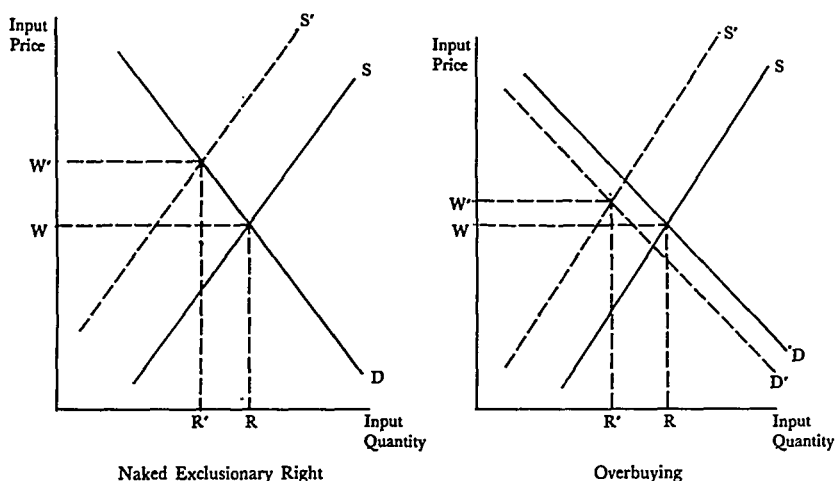
89. See *supra* note 61.

90. 148 F.2d at 430–31. Judge Hand never explained how this behavior threatened to increase or protect Alcoa's market power. Indeed, at some points in the opinion he appears indifferent to that issue. See *id.* at 427 (Sherman Act intended to forbid "good" trusts as well as "bad" for social and moral as well as economic reasons).

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available inputs. By overbuying bauxite, Alcoa raised its rivals' costs of producing aluminum.⁹¹

FIGURE 4



Real Foreclosure

Figure 4 illustrates the Real Foreclosure technique. Use of a naked exclusionary right—that is, foreclosure of supply without acquiring or consuming any of it—is illustrated in the left panel. Overbuying—foreclosure by “excessive” acquisition—is depicted in the right panel.

Before adoption of the exclusionary rights contract, price in both cases is W (intersection of S and D). In the left panel, a naked exclusionary rights agreement reduces the supply available to rivals with no reduction in demand. In the right panel, Overbuying occurs when the contract removes, from the market in which the excluding firm's rivals purchase, more supply (shift in supply from S to S') than the excluding firm absorbs for its own use (shift in demand from D to D'). Price therefore increases to W' (intersection of S' and D'), even though suppliers are sufficiently

91. Judge Hand apparently rejected this claim of Overbuying on the ground that Alcoa's intent to deprive its rivals of inputs was a factual issue, resolved in Alcoa's favor by the district court. *See id.* at 432–34. However, it is difficult to see how Alcoa's increases in capacity harmed competition unless they increased rivals' costs. Judge Wyzanski later suggested that Judge Hand felt constrained by the trial judge's findings of fact to seek out an alternative basis for condemning Alcoa. *See United States v. United Shoe Mach. Co.*, 110 F. Supp. 295, 341 (D. Mass. 1953), *aff'd per curiam*, 347 U.S. 521 (1954). For a case more clearly involving issues of Overbuying, albeit involving substantial collusion issues as well, see *American Tobacco Co. v. United States*, 328 U.S. 781, 800–04 (1946). We suggest a rather permissive legal standard for Overbuying claims. *See infra* note 228.

numerous that no single seller can exercise individual market power.⁹² This higher price is paid by both the purchaser of the exclusionary right and its rivals. It does not follow, however, that the purchaser gains no anticompetitive advantage. Competitors' cost increases may be larger if the purchaser uses the input less intensively, if it is vertically integrated into the production of some fraction of its input needs, or if its input purchase price is protected by a long term contract or superior bargaining ability. Moreover, if marginal costs rise faster than average costs, the resulting price increase could benefit all the firms.

3. *Legitimate Theories: Raising Rivals' Costs by Inducing Collusion*

Under certain conditions, exclusionary vertical restraints also can facilitate pricing coordination that enriches suppliers while raising the costs of the purchaser's competitors.⁹³ The suppliers who inflict these harms may or may not participate in the vertical restraint.

a. *Cartel Ringmaster*

There are two variants of this collusive method, one involving discrimination against rivals and the other involving refusal to deal. We denominate both as the Cartel Ringmaster technique because the purchaser, in effect, orchestrates cartel-like discriminatory input pricing against its rivals.⁹⁴ The purchaser provides a more efficient organizing, profit-sharing, and policing mechanism than the suppliers could generate themselves.

In the first type of case, a firm purchasing a vertical restraint may, as part of the agreement, induce a number of its suppliers to deal with the purchaser's rivals only on terms disadvantageous to those rivals. Antitrust lore sometimes describes this as a "price squeeze," although this term is most commonly employed when the selling and buying firms practicing the restraint are merged.

The technique, employed by defendants in *Terminal Railroad*,⁹⁵ also is aptly illustrated by *Interstate Circuit*.⁹⁶ In that case, Interstate Circuit, a company that operated motion picture theaters throughout Texas, obtained from movie distributors the promise that the distributors would, in effect, raise the costs of exhibitors competing with Interstate Circuit.⁹⁷

92. Cf. *infra* Section IV.A.3.b (discussing Frankenstein Monster method).

93. Bottleneck and Real Foreclosure also can be viewed as facilitating coordination where the purchasing firm contrives to restrain output directly.

94. We considered calling this "the F.R. Gadd" technique in honor of the case law's most notorious, though ultimately unsuccessful, cartel orchestrator. See *American Column & Lumber Co. v. United States*, 257 U.S. 377, 401 (1921). Gadd, however, sought to organize his cartel differently.

95. 224 U.S. 383; *supra* text accompanying notes 80-82.

96. *Interstate Circuit, Inc. v. United States*, 306 U.S. 208 (1939).

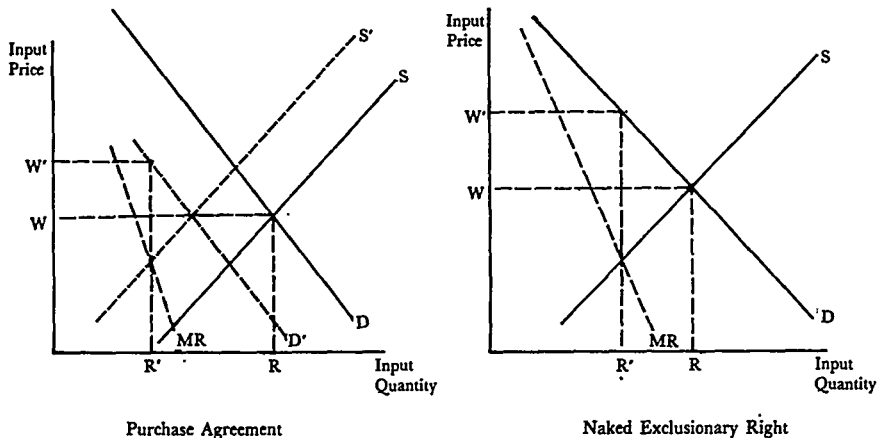
97. Interstate Circuit operated first-run theaters. Each agreement required a distributor to compel

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The Department of Justice obtained a ruling that the practice was illegal on the grounds that the distributors had agreed among themselves to raise the prices charged to Interstate Circuit's competitors.⁹⁸ The distributors thus had violated the per se prohibition on horizontal price fixing. Even in the absence of an express or implied horizontal agreement, however, the Supreme Court could have examined the government's claim under the Cartel Ringmaster theory: Interstate Circuit obtained promises from its suppliers to disadvantage its rivals by raising their costs.⁹⁹

Figure 5 illustrates the Cartel Ringmaster method of raising rivals' costs. Initially, supply (S) and demand (D) interact to establish price at W , quantity at R . In the left panel, a vertical restraint removes the purchaser's demand from the market (shift in demand from D to D'), and generates a corresponding reduction in supply (from S to S'). The agreement also directs (or has the effect of directing) suppliers to reduce or eliminate their competition in selling the remaining output to the purchaser's rivals. Suppliers therefore are able to price in a monopolistic fashion, restricting output to the point (R') where marginal revenue (MR) equals the costs of supply (S') and charging a higher price W' .¹⁰⁰

FIGURE 5



Cartel Ringmaster

second-run theaters to raise their ticket prices. *Id.* at 216-18. The price that theaters paid for exhibition rights did not necessarily rise but, presumably, their costs of attracting patrons did. Second-run operators could no longer use low prices to lure customers but had to resort to other less efficient means, such as advertising, more comfortable seats, or more butter on the popcorn. Resale price maintenance agreements similarly can raise the costs of discounters.

98. *Id.* at 226-27.

99. An analysis somewhat similar to this one is provided at the conclusion of the *Interstate Circuit* Court's opinion. *Id.* at 230-32.

100. In the case in which pricing coordination is imperfect, the price will be in the range between W and W' .

In the right panel, a similar diagram—without any shift in the demand and supply curves—depicts the case of naked exclusionary rights. Cartel Ringmaster also may involve outright refusals to deal with rivals by a number of suppliers. In this case, the suppliers also can gain by sharing directly in the increased profits of the purchaser or by extracting some of its gains by raising the purchaser's input costs.¹⁰¹

Cartel Ringmaster is somewhat different from the other techniques analyzed here because it has a greater horizontal aspect. Its profitability may not depend on the purchaser's gaining power over price in the market in which it sells and sharing the resulting profit with restrained suppliers. Instead, it is possible that the suppliers themselves may gain sufficient benefits from charging a higher monopoly price for their input, irrespective of any additional benefits obtained by the purchaser from competing against higher cost rivals. Indeed, in extreme cases, they may profit enough to be able to compensate the purchaser for its role as organizer of the collusive scheme.¹⁰² Moreover, by embedding the collusive agreement in a vertical contract that raises input prices, it is easier to prevent cheating and to redistribute the collusive gains. The purchaser can monitor the agreement and, absent antitrust strictures, enforce it.¹⁰³ Given this difference, it may be unnecessary for courts to require proof of power over price before finding an antitrust violation in this case, where the suppliers' conduct is essentially horizontal, that is, where it is profitable to suppliers irrespective of any payments made to them by the purchaser.¹⁰⁴

b. *Frankenstein Monster*

Finally, a vertical restraint can effectively alter the industry structure confronting the purchaser's competitors and thereby significantly increase the probability that the remaining *unrestrained* suppliers can successfully collude, expressly or tacitly, to raise price. We denominate this the Frank-

101. If the latter approach is taken, and the purchaser has the power to pass on cost increases, then the exclusionary right agreement may require a two-part pricing scheme or ancillary restraints (such as maximum resale price maintenance) to prevent the purchaser from passing along too much of its cost increases to consumers and thus reducing the suppliers' profits.

102. Indeed, one could imagine a "sham" input contract for these purposes. For example, suppose a supplier of supermarket shopping carts contracted with competing supermarkets to supply carts under a long term requirements contract on the condition that they raise the prices of eggs and milk to their monopoly levels. In this fashion, the input supplier could act as a Cartel Ringmaster for its customers.

103. See Posner, *Information and Antitrust: Reflections on the Gypsum and Engineers Decisions*, 67 GEO. L.J. 1187 (1979); Krattenmaker & Salop, *Competition and Cooperation in the Market for Exclusionary Rights*, 76 AM. ECON. REV. (Papers and Proceedings) 109, 112 (1986).

104. This may well be a proper explanation of the practices involved in *Interstate Circuit*, where the Court applied something akin to a per se rule. 306 U.S. at 230-32. Of course, if the exclusionary agreement also creates large efficiencies, per se treatment may be unwarranted. See *Broadcast Music, Inc. v. Columbia Broadcasting Sys.*, 441 U.S. 1 (1979).

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enstein Monster technique, because through this method the purchaser of an exclusionary rights contract creates and turns loose upon its rivals an industry structure likely to generate a price increase. As an extreme example, suppose a manufacturer signs exclusive dealing contracts with all but one retailer. Assuming that there are entry barriers, the one remaining retailer can then monopolize trade with the manufacturer's rivals. That retailer is the Frankenstein Monster.¹⁰⁵ Similarly, by purchasing exclusionary rights from the most likely potential entrants, the purchaser might also use the Frankenstein Monster technique to facilitate collusion among established input suppliers by eliminating or reducing the threat of entry. Unlike the Cartel Ringmaster technique, when a purchaser employs the Frankenstein Monster tactic, its rivals' cost increase is inflicted by suppliers that are *not* parties to the exclusionary rights agreement.

The assumption that when entry is not easy, high levels of, and significant increases in, industry concentration raise the probability of coordinated, monopolistic behavior is a central tenet underlying virtually all antitrust policy. No leading case of which we are aware has held that these results can follow from vertical integration, although the plaintiff in *Klor's* may have had such a claim in mind.¹⁰⁶

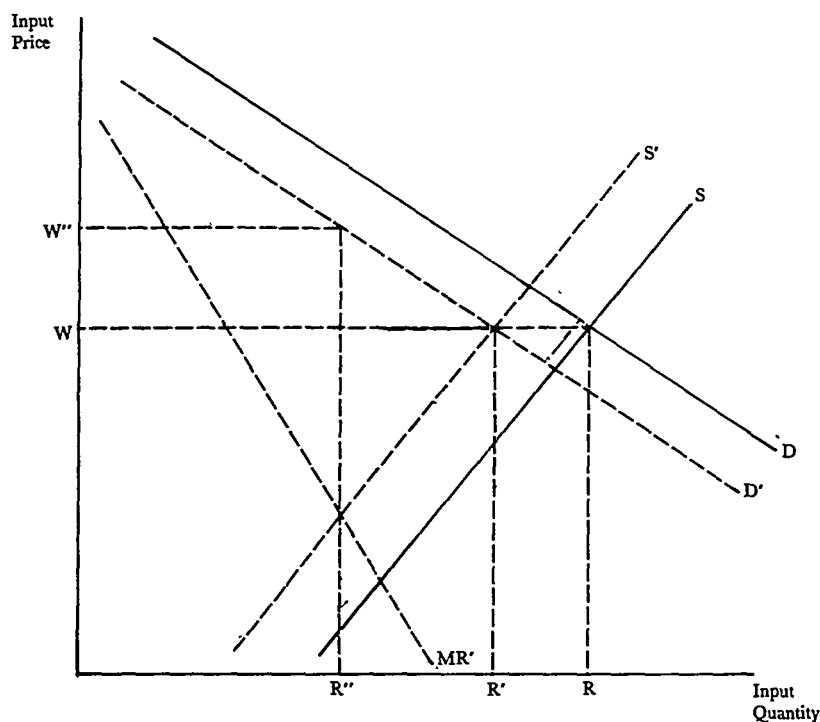
Figure 6 depicts the manner in which the Frankenstein Monster method works for a non-naked exclusionary rights agreement with an established firm.¹⁰⁷ Before adoption of the restraint, supply (S) and demand (D) interact to determine a price at W and quantity sold at R. The restraint removes both the purchaser's demand (shift from D to D') and the seller's supply (shift from S to S') from the market. These events reduce

105. More generally, assume an input supply market of five equal-sized firms. If one buyer, B, enters into an exclusive dealing arrangement with three of these firms, B's rivals must then purchase their input from an industry comprising only two equal-sized firms. Much theoretical and empirical research suggests that, in industries where entry is not easy, a decrease in the number of significant competitors increases the likelihood of tacit or express price coordination. See, e.g., Weiss, *The Concentration-Profits Relationship and Antitrust*, in CONFERENCE ON INDUSTRIAL ORGANIZATION, INDUSTRIAL CONCENTRATION: THE NEW LEARNING (H. Goldschmid, M. Mann & J. Weston eds. 1974); Plott, *Industrial Organization Theory and Experimental Economics*, 20 J. ECON. LIT. 1485 (1982).

106. As discussed earlier, *Klor's* also (or instead) may have had the Bottleneck variant in mind. For a more comprehensive description of the *Klor's* case, see *infra* Section IX.A. Conceivably, the result in *Standard Stations* or *Alcoa* might be justifiable on Frankenstein Monster grounds. See *supra* text accompanying notes 60, 87-88. Pursuit of any one of these strategies for raising rivals' costs does not necessarily foreclose simultaneous pursuit of any other. In theory, it is possible, with an identical series of exclusionary rights contracts, for a purchasing firm (a) to deny rivals access to the lowest cost suppliers (Bottleneck), (b) to subject rivals to an artificially restricted supply (Real Foreclosure), (c) to induce restrained suppliers to price discriminate against rivals or to refuse to deal with them (Cartel Ringmaster), and (d) to present unrestrained suppliers with a significantly greater opportunity to collude against rivals (Frankenstein Monster). Indeed, it is possible that the restraints in *Alcoa*, *Terminal Railroad*, and *Interstate Circuit* each accomplished all these results.

107. We do not illustrate here the case of a naked restraint with either an established firm or a potential entrant. That diagram would be identical to the right panel in Figure 5. In the case of imperfect pricing coordination, the price would be in the range between W and W'' in Figure 6.

FIGURE 6



Frankenstein Monster

total market sales to R' while price remains at W . However, if the purchaser creates a Frankenstein Monster, so that the remaining suppliers can coordinate their pricing, they then would supply only the quantity (R'') where marginal revenue (MR') equals the cost of supply (S'), yielding a price of W'' .

B. *Gaining Power over Price*

A firm that raises its rivals' costs has not necessarily gained anything. It may have harmed one or more of its competitors, but has it harmed competition? Competition is harmed only if the firm purchasing the exclusionary right can, as a result, raise its price above the competitive level. Under two conditions, each of which may frequently occur, the purchaser will

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not be able to increase its price and so competition in the market in which the purchaser and its rivals sell may remain unaffected.¹⁰⁸

1. *Effects on Rivals' Costs*

First, the increase in the input's price may be so insignificant that it has little effect on the total costs of actual or potential competitors. This result can occur if the input price increase is small or if the input from which rivals are excluded accounts for only a small fraction of their total costs. Consumer welfare is unlikely to be affected by a strategy that raises the price of a key input from \$10 to \$10.01 or by one that doubles the total cost of one of a firm's inputs from \$1 to \$2 when other necessary inputs cost \$1,000 per unit of output produced.

2. *Effects on Competitive Abilities or Incentives*

Second, even if excluded rivals' costs increase significantly, the purchaser of an exclusionary right still may not gain power over price. Competition from any of three sources—other competitors who also purchase exclusionary rights, unexcluded rivals, or potential entrants—might still prevent the purchasing firm(s) from raising price as these other competitors take up the slack caused by the diminished output of excluded rivals. This competition will not occur, however, if these firms lack the ability or incentive to compete.

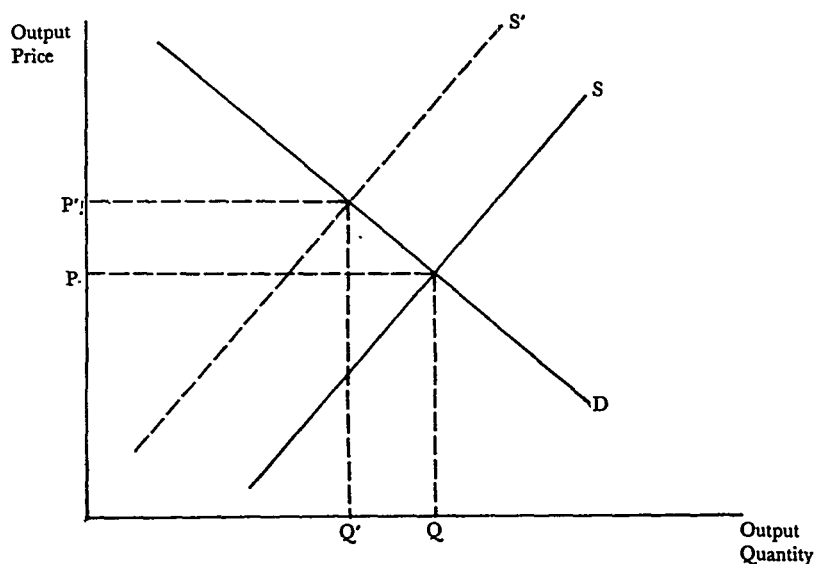
a. *Ability To Compete ("Foreclosure")*

Unexcluded firms not saddled with significantly increased costs from the exclusionary right will nonetheless lack the ability to compete for the slack if they face barriers to entry or expansion such as governmentally enforced production quotas or their own limited capacity that cannot be expanded rapidly without increasing costs. In such a case, unexcluded firms' selling prices (and often market shares) will increase as a result of excluded rivals' decreased sales caused by their increased costs.¹⁰⁹

108. For a technical analysis of this issue, see S. SALOP & D. SCHEFFMAN, *supra* note 73; Salop, Scheffman & Schwartz, *supra* note 73.

109. This result, occurring in the purchasing firm's output market, is analogous to the results produced in the same firm's input market by the Bottleneck and Real Foreclosure techniques. Bottleneck and Real Foreclosure increase input prices by directly restraining input supplies. Here, output prices charged by firms in the purchasing firm's market rise because supply is restricted by the combination of cost increases to certain firms and entry or expansion barriers facing the remaining firms.

FIGURE 7



Foreclosure

Figure 7 illustrates this phenomenon.¹¹⁰ When output supply shifts back, because of constraints on excluded rivals, from S to S' , output price rises from P to P' and output falls from Q to Q' . The barriers to entry and expansion facing unexcluded firms prevent them from expanding to maintain the competitive price at P .

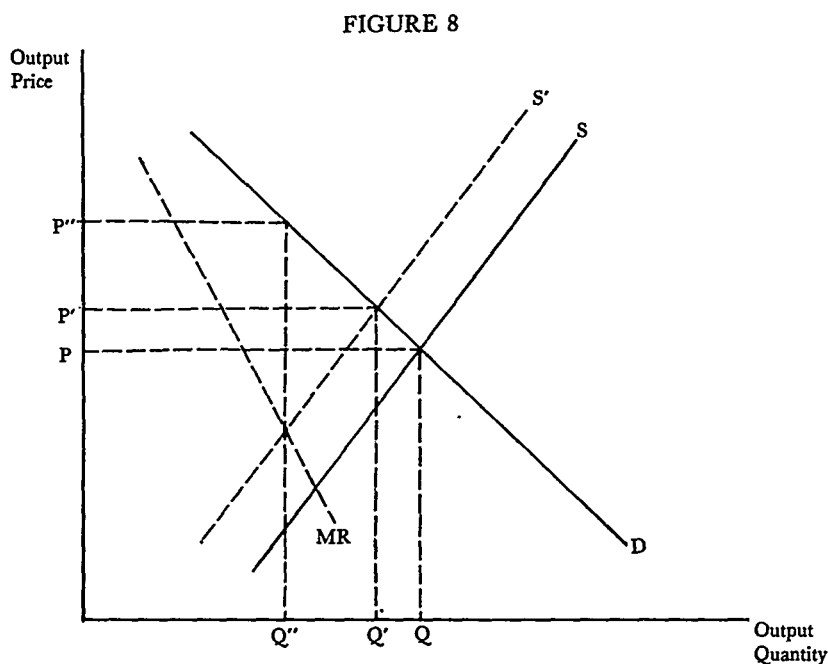
b. *Incentive to Compete ("Facilitating Coordination")*

Even if both the firm(s) purchasing exclusionary rights and any established rivals whose costs are not increased by these rights can expand or enter to take up the slack, they may lack the incentive to do so. After the exclusion of the rivals, these firms may be sufficiently few that they can then choose not to compete but, rather, to collude expressly or to coordinate tacitly among themselves to restrain output and raise price. Purchasers gain power over price when exclusionary rights agreements remove

110. Our depictions of the input market in Figures 1-6 denote price and quantity by the symbols W and R respectively. For the output market, Figures 7-9 denote price as P and quantity as Q .

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restraints on their pricing (and output) decisions. This is the kind of result antitrust policy seeks to avoid.¹¹¹



Unlike the case depicted in Figure 7, where foreclosure raised the equilibrium price to P' , facilitating coordination leads, in Figure 8, to a further price increase to the monopoly price, P'' , and a further output reduction to Q'' . Competitors are now better able to coordinate prices, leading them to set marginal revenue (MR) equal to marginal costs (S') at output Q'' .¹¹²

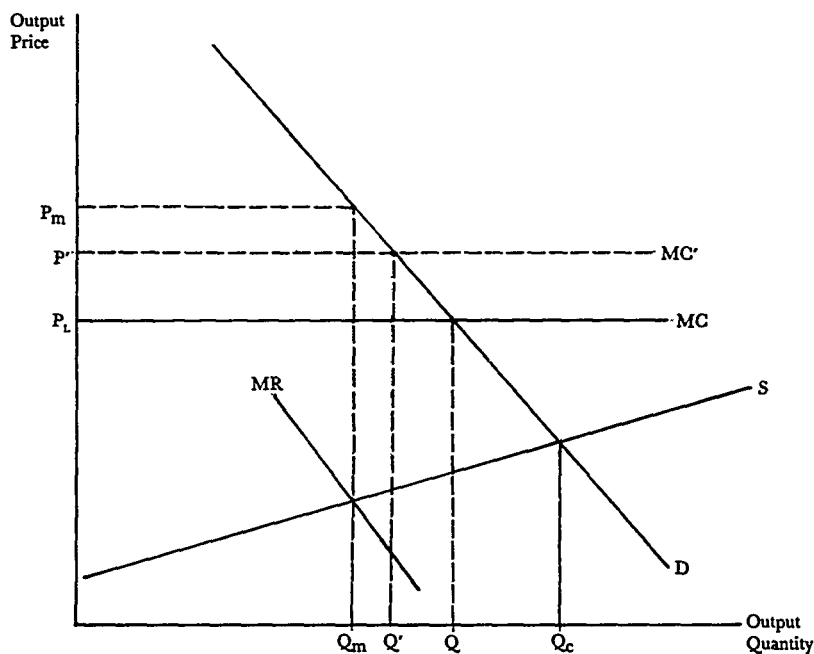
111. This increased influence over price and quantity in output markets is analogous to the collusive results produced in the input market by the Cartel Ringmaster and Frankenstein Monster techniques, which raise input prices by removing from the competitive arena those firms that prevent remaining suppliers from expressly colluding or tacitly coordinating prices against the purchaser's rivals.

112. In most cases, presumably, pricing coordination will be imperfect, leading to a price in the range between P' and P'' .

c. *Effects on Potential Competitors ("Raising Barriers to Entry")*

In some markets, potential competition provides a significant competitive check on established firms distinct from the check that established firms exert on each other. Even assuming that established firms could collude successfully to achieve a monopoly, potential entrants can keep prices down if entry is easy. Thus, if exclusionary rights significantly raise costs for potential entrants, such rights will raise entry barriers into the market and enhance established firms' power to raise price.¹¹³

FIGURE 9



Raising Barriers to Entry

This case is illustrated in Figure 9. The supply curve of established firms is denoted by S , and the monopoly price and quantity, unconstrained by entry, are denoted by P_m and Q_m .¹¹⁴ However, the market

113. See J. BAIN, *INDUSTRIAL ORGANIZATION* 331 (1959); R. POSNER & F. EASTERBROOK, *supra* note 1, at 516-17, 666; W. BAUMOL, J. PANZER & R. WILLIG, *CONTESTABLE MARKETS AND THE THEORY OF INDUSTRY STRUCTURE* (1982); see also *supra*, Section IV.A.3.b. (discussing Frankenstein Monster).

114. The monopoly output, Q_m , is the output level at which marginal revenue (MR) equals the

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price is constrained to a lower level denoted to P_L equal to the long-run costs of potential entrants (MC). If the exclusionary rights agreement raises the costs of potential entrants to MC' , entry would provide less of a restraint on established firms, allowing the market price to rise from P_L to P' and output to fall from Q to Q' .¹¹⁵

3. *Effects on Production Efficiency*

The preceding analysis explains how a firm that raises its rivals' costs may enrich itself by gaining larger profits and hurt consumers by raising price above prevailing levels. That result is certainly inconsistent with the central goals of antitrust policy.¹¹⁶ In more technical terms, allocative efficiency has declined because price has risen above the actual cost of production and output has fallen accordingly. Some consumers willing to purchase the product at a price sufficient to cover the production costs cannot do so.

Even if the purchaser succeeds only in raising its rivals' costs (and does not also gain power to raise price), it still may deprive society of another benefit promised by free markets, minimization of the costs of producing output. This benefit, often termed "production efficiency," is realized when each firm minimizes its own costs of production and when all firms produce output commensurate with their relative costs (i.e., when lower cost firms produce more output).¹¹⁷ Simply raising some rivals' costs, without conferring power over price, can reduce production efficiency if, as a consequence, excluded rivals reduce output leaving slack that can only be taken up by higher cost competitors.¹¹⁸ Moreover, the excluded rivals no longer produce at minimum cost if the exclusionary rights agreement compels them to substitute less efficient inputs.

Our approach, however, would not impose antitrust liability on exclusionary rights purchasers who reduce production efficiency without also gaining power over price. We omit such a standard principally because, except in extreme cases, firms have no incentive to impose production inefficiencies on their rivals (i.e., to raise rivals' costs) unless they also can achieve power over price. Thus, cases in which the purchaser inflicts only production inefficiencies should be quite rare. Yet acceptance of such claims would permit rivals routinely to complain of efficient exclusionary

cost of supply for established firms (S). The competitive price is the price where supply equals demand at a higher output, Q_c .

115. If pricing coordination is imperfect, price will rise to a level in the range between P_L and P' .

116. See *supra* note 12 and accompanying text.

117. This statement assumes that all firms have rising marginal costs. If all firms have constant marginal costs, of course, then efficiency dictates that the lowest cost firm produce all the output.

118. That is, lower cost competitors cannot enter or expand at constant costs.

practices. Many, perhaps most, exclusionary rights agreements can plausibly be alleged to confer some cost savings on firms that purchase them.¹¹⁹ In our judgment, to make the incidental infliction of production inefficiencies on rivals, by itself, a basis for liability would place too heavy a burden of self-restraint on firms that antitrust policy urges to compete with each other.¹²⁰

C. *The "Leverage" Debate*

The preceding analysis might be questioned on a different basis. One line of criticism of prevailing vertical integration doctrine holds that "[t]here is only one monopoly profit to be made in a chain of production."¹²¹ According to this criticism, a firm that monopolizes one market cannot increase its profits by extending, or "leveraging," that monopoly into a vertically adjacent market. Some might argue that our analysis conflicts with this "no leverage" proposition because it suggests that input suppliers can gain power simply by integrating with their purchasers.

This criticism, however, misconceives our claims by assuming the existence of a monopolistic input supplier.¹²² Our analysis explains how the purchase of exclusionary rights can facilitate output restrictions by suppliers who, absent these rights, would be selling inputs as competitors or oligopolists, not as monopolists. The purchasing firm plays two roles in this process: It, in effect, organizes disorganized suppliers, and it profits from the suppliers' restrictions of output to the purchaser's rivals and therefore can compensate suppliers for that restriction. Our claim is not that the exclusionary rights agreement magically can transfer or extend monopoly power from one level in a chain of production to another. Rather, we have shown that exclusionary rights, by effectuating a partial merger or supply restraint, or by facilitating coordination among compet-

119. See *supra* Section III.B. Where no plausible efficiency claim can be made, as in the case of naked exclusionary rights, plaintiffs might be relieved of the burden of proving that the purchaser achieved power over price or might at least be held to a less rigorous standard of proof on that issue.

120. Those who disagree with these conclusions need not discard our entire analysis. They can simply embrace our analysis of techniques for raising rivals' costs, employ this analysis to formulate a standard of liability, and possibly create a mechanism for exempting exclusionary rights supported by substantial efficiency justifications.

121. R. POSNER & F. EASTERBROOK, *supra* note 1, at 870.

122. Indeed, the no leverage view rests on several limited premises: (a) There is a monopoly supplier; (b) The purchasing firm and its rivals use all inputs, not just those sold by the restrained supplier, in fixed proportions; (c) The purchasing firm and its actual and potential rivals employ identical technologies, face equal costs, have constant marginal costs of production, and, if they are multiproduct firms, confront no cost or demand interdependencies; and (d) The purchasing firm and all its actual and potential rivals are vertically integrated to the same degree and have the same degree of bargaining power over input suppliers. Only under these stringent conditions (or under the equally extreme assumption that suppliers can perfectly price discriminate) is it true that vertical integration (or raising rivals' costs) can never be profitable. See authorities cited *supra* note 73.

ing suppliers, can generate monopoly power that would not exist otherwise.

If the input supplier is a single-firm monopoly, the exclusionary rights agreements may not permit purchasers to gain power over price. In these cases, the monopoly supplier often would prefer to sell to a competitive market or would need no help in orchestrating its own unilateral restriction in the supply of inputs.¹²³ Although simple, even this limited proposition is not universally true. For example, if a monopoly input supplier is subject to price regulation, it may be able to evade that regulation, and charge monopoly prices, by integrating with one or more of its purchasers via exclusionary rights agreements.¹²⁴ Also, if firms in the output market sell many products and use the restrained input only in some of those products, but there are cost or demand interdependencies in producing or selling the products, then excluding rivals from one input used in one product market may give an exclusionary rights purchaser a competitive advantage and power to raise price in other markets.¹²⁵ Thus, purchases of exclusionary rights from monopolistic input suppliers should be viewed less skeptically, but should not be immunized from antitrust liability.

V. POLICY IMPLICATIONS

To review the argument, a successful anticompetitive exclusionary rights agreement can substantially raise the input costs of the purchaser's rivals. When this occurs, the purchasing firm can then raise its output price unless enough actual or potential unrestrained competitors remain ready, willing, and able to discipline the purchasing firm's prices. Both the cost increase to rivals and any resulting price increase by the firm strategically acquiring an exclusionary right are unambiguously inconsistent with the consumer welfare antitrust standard, unless the exclusionary rights agreement also allows the purchasing firm to achieve overriding economies.¹²⁶ Absent redeeming efficiencies, rivals' costs and, therefore,

123. See R. POSNER & F. EASTERBROOK, *supra* note 1, at 803.

124. See *id.* at 870 n.2 (regulated seller can realize monopoly profits by integrating into input supply market).

125. For example, suppose Broadway-Hale denied Klor's access to kitchen appliances sold by a monopolistic supplier-manufacturer. Klor's might then encounter more difficulty attracting consumers into its store and thereby face higher costs of selling other items (say, stereos) on which Klor's competes with Broadway-Hale. If so, then Broadway-Hale might be willing to compensate the monopolist kitchen appliance supplier for its revenue loss out of Broadway-Hale's gains in the stereo market. An appliance price rise over the monopoly level probably would reduce the supplier's profits by less than the gain to Broadway-Hale because the supplier was maximizing its profits before the restraint. The Envelope Theorem demonstrates that a small price rise above the monopoly price charged to rivals would reduce the supplier's profits by an order of magnitude less than the increase in Broadway-Hale's profits. See H. VARIAN, *MICROECONOMIC ANALYSIS* (1982).

126. Significant efficiencies should not necessarily immunize exclusionary rights that enhance market power. See *infra* Section VII.C. The purchaser may still price monopolistically while produc-

prices are artificially increased and the purchasing firm acquires effective monopoly power, the ability to raise price above the competitive level.¹²⁷

One may fairly ask why exclusionary rights agreements are not more commonly employed to generate monopoly power. Apart from antitrust constraints, the reason is that in many instances the exclusionary right will not harm competition and therefore promises no economic benefit to its purchaser. Certain structural conditions must exist within the relevant markets for such a strategy to succeed. A sensible antitrust rule should take account of the existence of such conditions.

Suppose, for example, that firm A, one of twenty-five manufacturers of wooden matches, obtained a promise from two suppliers of paper clips, S_1 and S_2 , that they would not sell to firm B, another wooden match maker. The agreement is quite unlikely to have any anticompetitive effects. B might use paper clips in its business operations, but should be able to switch easily to competitors of S_1 and S_2 . If not, B may be able to use staples or tape without increasing its costs so much that it must raise price significantly. In other words, there would be no effective foreclosure. However, even if B's costs do increase, A is not likely to achieve power to raise the price of wooden matches, given the twenty-three other competitors A faces. Supply of wooden matches would not fall significantly, and pricing coordination would not be substantially easier. Finally, even if A significantly raised the costs of all its competitors, competition from paper matches probably would constrain A's ability to raise wooden match prices. In such a case, the inference would be virtually overwhelming that A's exclusionary right is harmless. An antitrust policy predicated on the consumer welfare standard would not proscribe such a contract.¹²⁸

How may antitrust enforcers and judges separate the sheep from the goats? Generalizing from the hypothetical, two conditions must be satisfied before the purchase of exclusionary rights can have an anticompetitive effect. First, conditions in the input market must enable the purchaser to raise its competitors' costs by purchasing exclusionary rights. These exclusionary rights contracts must significantly raise the competitors' costs.¹²⁹

ing efficiently. See Williamson, *Economies as an Antitrust Defense: The Welfare Tradeoffs*, 58 AM. ECON. REV. 18 (1968).

127. The purchasing firm sometimes may choose to exercise this monopoly power by expanding its output rather than by raising its price. Such a choice, which may be altered by the firm at any time, does not affect the consumer welfare analysis of the exclusionary rights practice. In this case the injury is the potential for price increases in the future as well as the inefficiency of its output expansion relative to its (formerly) lower cost rivals. There is a potential conflict between the welfare of consumers and rivals only in extreme cases where the purchaser increases output so much that price actually falls. In such cases, the purchaser maintains the power, if not the incentive, to raise price, given current demand conditions.

128. For a possible qualification of this conclusion, see *supra* Section IV.B.3.

129. Throughout this Article, when we refer to rivals' costs, we mean those costs that affect firms' pricing opportunities and strategies. As a general matter, this means that one should inquire into

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Second, conditions in the output market must enable the purchaser, after its competitors' costs increase, to increase its price. It will acquire this power only if unexcluded rivals lack the ability or incentive to expand their output in response to the purchaser's price increase and if potential entrants cannot take up the slack.

This anticompetitive power to raise price does not necessarily include only the traditional market power of a seller to raise price above marginal cost without losing all of its sales.¹³⁰ Even in a perfectly competitive market, firms pricing at marginal cost can gain if their rivals' marginal costs increase and if that increase results in a higher competitive market price (as higher cost rivals reduce their outputs).¹³¹ Thus, a firm need not enjoy or acquire traditional market power to gain the ability to price above pre-exclusionary-rights competitive levels. The strategy requires only barriers to entry and expansion in the output market to succeed.¹³² As explained

whether the exclusionary strategy increases rivals' marginal (or incremental) costs. Marginal cost is the additional cost of producing an additional unit of output. Incremental cost is a more general concept, encompassing the additional cost of producing an increase in output, regardless of whether the increase is a single unit or a firm's total output, or involves the additional cost of improving product quality. Marginal and incremental costs govern pricing behavior. *See infra* text accompanying note 194. Fixed costs are those costs that do not vary with the quantity produced and do not affect pricing behavior except in those cases where fixed costs are rightfully considered incremental.

Thus, whether the cost of a particular input is deemed fixed depends on the time period under consideration. This issue is reminiscent of the controversy over what costs to include as variable costs in predatory pricing cases. *See* 3 P. AREEDA & D. TURNER, *ANTITRUST LAW* 154-56 (1978); Ordovery & Willig, *supra* note 73. In general, the duration of the exclusionary rights agreement determines whether the affected cost is marginal or fixed. The input purchase involves a marginal (or incremental) cost to the rival if the input can be varied by that firm within the time period of the exclusionary rights agreement.

Further, where product quality is an issue, the distinction between fixed and marginal costs is less important. Both affect incremental cost if the level of fixed costs varies with different quality levels, even while remaining fixed for different quantities produced. In this case, when a rival's fixed costs rise, the rival may find it most efficient to produce a somewhat lower quality product to economize on fixed costs. To keep its product competitive, however, this rival also would have to lower its price accordingly. The effect would resemble a marginal cost increase because the rival is made less capable of constraining price increases by the exclusionary rights purchaser. The rival's effective incremental costs—its cost of increasing product quality by an incremental amount—rise as a result of the exclusionary right. A similar analysis applies to exclusionary conduct that reduces a rival's customer base. This latter analysis often is useful in analyzing exclusionary tying arrangements. The fixed-marginal cost distinction also is blurred if the exclusionary right affects a firm considering entry or expansion. For established firms, some input costs are marginal if they are contemplating expansion, but fixed if they are evaluating a contraction in output. For entrants, all costs are marginal (or incremental). If an entrant does not produce, it need not bear even fixed costs.

Thus, the relevant question is whether rivals' marginal (or incremental) costs rise. In answering that question, however, one must be particularly sensitive to the duration of the exclusionary rights agreement, whether the agreement is likely to affect rivals' product quality, and whether excluded rivals are contemplating entry, expansion, or contraction.

130. *See* 2 P. AREEDA & D. TURNER, *supra* note 129, § 501; *see also infra* note 132.

131. The competitive price will rise only if marginal costs of established firms rise with output. Rising marginal costs create what we sometimes refer to as barriers to expansion.

132. For example, even if the market for taxi rides is perfectly competitive, in the sense that no single taxi driver has power over price, taxi owners collectively will likely earn more if bus service is greatly reduced and no new taxis enter the market. As a general matter, a firm can gain the power to raise price by unilaterally restraining its own output, by colluding with rivals to coordinate an indus-

below, however, the size of the firm, relative to its rivals, is relevant if one accounts for the likelihood that rivals can successfully resist the imposition of exclusionary rights.¹³³

If these two basic conditions are met, the strategy can succeed. For the strategy to succeed, however, the firm seeking an exclusionary right also must be able to purchase that right profitably, and its rivals must lack effective counterstrategies. Finally, one must consider whether some apparently anticompetitive exclusionary rights deals should be shielded from antitrust attack because they do or may generate overriding cost efficiencies.

The foregoing structure constitutes the coherent, articulated theory linking the fact of exclusion to the potential for anticompetitive injury that antitrust law presently lacks for vertical contract cases. When an exclusive dealing agreement, tying practice, vertical merger, boycott, or refusal to deal is challenged on the ground that it unduly restrains trade by excluding competitors, that complaint should be analyzed according to this framework.¹³⁴ Antitrust courts and enforcement agents should not focus on whether a non-trivial amount of commerce in the purchasing market is affected or whether traders have crippled their own or someone else's freedom or made consumers irate. Nor should they restrict their analysis to whether a substantial share of the purchasing market has been foreclosed to sellers.¹³⁵ Rather, they should center their analysis on whether the acquiror of the exclusionary right has gained power to raise its price because its acquisition has significantly raised its competitors' costs.¹³⁶ If so, courts and enforcers next should consider whether intervention is appropriate in light of the likely costs to the purchaser, counterstrategies available to its rivals, and the efficiency benefits of the practice.¹³⁷

try output restraint, or by inducing rivals to restrain their outputs unilaterally by raising their costs. In the latter case, even in a perfectly competitive output market, the exclusionary rights purchaser could still be said to have monopoly power, that is, the ability to exclude rivals ("raise rivals' costs") and control price ("gain power over price").

133. See *infra* Sections VII.A., VII.B.

134. Collaboration among competitors as an additional, perhaps separate, issue, especially with regard to Cartel Ringmaster, is discussed *infra* note 136.

135. See *supra* Section I. These questions may throw some light on the underlying issues of raising rivals' costs, power over price, and cost savings, but they do not have independent significance.

136. Cartel Ringmaster may provide an important exception to this approach. In Cartel Ringmaster, the vertical restraint may increase suppliers' profits directly as they are able to raise their prices to the rivals. Profitability thus may not depend on the purchaser's gaining power over price. Instead, the purchaser may be acting purely as a cartel manager. See *supra* note 102. In such a case, proof that rivals' costs are raised may be sufficient for antitrust liability. Proof of power over price may be unnecessary since the practice is, in essence, horizontal price-fixing. This is not to say, however, that efficiency defenses would not be available. See *Broadcast Music, Inc. v. Columbia Broadcasting Sys.*, 441 U.S. 1 (1979).

137. We seek to provide full analyses of these issues *infra* Section VII. In sum, we conclude that one cannot assume that rivals will always or usually be able to prevent purchasers from obtaining anticompetitive exclusionary rights or that suppliers will be unwilling to grant them. If rivals must

Three different types of objections can be offered to these arguments. First, some might argue that the standards we propose are theoretically sound but impractical as bases for implementing antitrust policy because they are too vague or open-ended. Others may argue that we are tilting at windmills, that without the aid of antitrust law, rivals easily can adopt counterstrategies to prevent exclusionary cost-raising tactics, that suppliers rarely will be willing to sell exclusionary rights, and that the intervention of antitrust authorities will lead only to the undue disruption of efficiency enhancing practices. Still others may assert that, although antitrust can and should respond to exclusion claims with a unified, simplified analytical structure, other methods are superior. The following three sections respond, in turn, to each of these arguments.¹³⁸

VI. MEASURING THE LIKELIHOOD OF ANTICOMPETITIVE EFFECTS

At a minimum, the structure elaborated in the preceding section defines the framework within which exclusionary vertical restraints issues should be analyzed. Some may complain that the standards we propose are so open ended and vague that they are not practically administrable. There is no simple or agreed upon method for determining how precise a standard must be before it can be deemed practically administrable.¹³⁹ Nevertheless, clearer standards than those set out above are available. They can be developed by adopting objective measures for estimating the likelihood and magnitude of anticompetitive effects. This process requires identifying the key factors of market structure and firm behavior that are conducive to successful exclusionary strategies and objective standards to measure the extent to which such factors are present in specific cases. In this fashion, the inquiry may be tightly structured to narrow the range of factual issues presented.¹⁴⁰

pay to avoid exclusion, then that payment can effectively raise their costs. Suppliers can be induced to grant exclusionary rights when purchasers can compensate them from the purchasers' increased profits that result from gaining power to raise price. Although these results will not always occur, they do reveal that one cannot assume that a competitive market for exclusionary rights is likely to lead to competitive product markets. Just as a competitor's direct acquisition of its rivals can sometimes create market power, so can the indirect acquisition that results from controlling rivals' sources of supply. Finally, exclusionary rights agreements often can lower their purchasers' costs. Where, however, opponents have carried the burden of showing that the agreement probably confers on its purchaser the power to raise price, defenders of the practice should be required to prove measurable, specific, countervailing efficiencies to justify the practice.

138. Our experience has been that a reader is likely to fear one of these arguments much more strongly than the others. However, readers vary greatly in identifying the most feared counterargument. Different readers, then, may wish to read the following three sections in different orders.

139. One reason is that people may mean different things in asserting that a legal rule or standard cannot be practically administered. They may fear that the standard permits frivolous claims, that it does not sufficiently proscribe the range of potentially relevant issues in close cases, or that it does not permit efficient disposition of meritorious claims.

140. Two sources of difficulty deserve emphasis. First, we do not claim the ability to judge when

A. *Are Rivals' Costs Raised?*

Our earlier analysis reveals that this question is best addressed by considering the various methods by which exclusionary rights can raise rivals' costs. The firm that purchases an exclusionary right achieves no anticompetitive end unless that firm's competitors suffer significant increases in their costs as a result.¹⁴¹ A set of standards or rules based on measures of likely effects emerges from considering how this might occur.

First, competitors will experience a cost increase if any of four conditions holds after the exclusionary right is established: (a) Bottleneck—the remaining input suppliers, who have not granted exclusionary rights, are more expensive or less efficient sources than the suppliers that entered into the exclusionary rights agreements; (b) Real Foreclosure—the remaining input suppliers have increasing costs of expansion or such limited capacity that competition for their goods by excluded purchasers will drive up their prices; (c) Cartel Ringmaster—the exclusionary rights agreement induces the supplying firms subject to it to refuse to deal with the purchaser's rivals or to sell to them only at higher prices than are charged to the purchaser; (d) Frankenstein Monster—although prior to the agreement input suppliers were unlikely to collude successfully, after the agreement the structure of a market consisting only of the remaining suppliers is such that they probably may now, tacitly or expressly, coordinate to increase price above levels that prevailed before the exclusionary agreement.¹⁴²

Second, the cost increase that results from any or all of these causes will

a particular rule is either "just right" or "sufficiently practicable." Second, as one improves predictability by adopting objective standards, measures, guidelines, or filters to distinguish permissible from impermissible conduct, one necessarily alters the probability that every meritorious claim will be vindicated and all others vitiated. Easterbrook, *supra* note 49, at 14–15. Moreover, choosing quickly applicable methods of measuring effects entails choosing the direction in which one wants to err. Should one be more careful to disapprove restraints that, if fully examined, would prove to be anticompetitive or to approve those that would prove harmless or procompetitive? The choice is unavoidable. One who believes that antitrust enforcement is likely to be dominated by boobs, indolents, and publicity hounds will wish to err on the side of overly permissive standards. One who believes that many firms very frequently confront and act upon opportunities to seize market power will wish to err in the opposite direction. Resolving these contentions is difficult. Not only are both difficult to test, but proof of one belief does not disprove the other. For these reasons, some will object to any further attempt to clarify—and therefore narrow or widen—the scope of illegal exclusionary vertical restraints by objective tests.

We try to take account of these sources of difficulty by setting out a series of measures for resolving each of the issues identified to this point. We seek to show that each measure will be responsive to the policy issues raised by vertical restraints cases. However, as discussed above, we are not prepared to defend any of them against the charges that they (a) are insufficiently administrable, (b) unduly sacrifice correct results for predictable ones or vice versa, or (c) err in the wrong direction. Such objections often can be met by altering the liability thresholds for the various objective measures.

141. For a discussion of the proper measure of cost, see *supra* note 129, *infra* Section VI.A.1.

142. In all of these illustrations, of course, "suppliers" refers not only to firms currently selling to the purchaser or its rivals but also to potential entrants and firms selling substitute products.

harm competition only if it is "significant" in the sense that it will materially increase the price that the purchaser's rivals must charge in their market to achieve the same level of profits. Thus, the input must account for a significant element of the rivals' total costs and the increase in the cost of that input must be significant, in magnitude and duration, as well.¹⁴³ Further, enough of the purchaser's actual and potential rivals must suffer the price increase so that remaining unexcluded rivals cannot or will not prevent the purchaser from exercising power over price.

A formal antitrust law that sets out these conditions as the initial inquiries in exclusion cases would be preferable to the formal standards now apparently in force. This refined approach, however, is still vague in that it does not indicate where to draw lines or how to measure the variables. When is a cost increase "significant" or a price rise "material"? What market structures are conducive to collusion? Different judges or different enforcement officials might vary greatly in identifying the precise point at which any of these conditions is met. Different economists might choose alternative variables as measures of relevant market conditions.

These problems are not unfamiliar to antitrust lawyers. Indeed, many of these issues have puzzled advocates, enforcers, and scholars concerned with antitrust merger law for decades. At the public enforcement level, the present resolution of the vagueness problem is to specify more particularly the circumstances in which these conditions are likely to arise. The Department of Justice (DOJ) has promulgated a set of merger guidelines¹⁴⁴ that define an analytic framework for evaluating the competitive effects of corporate mergers and constrain the Department's choices of which mergers to challenge. These guidelines employ numerical measures of market structure and pricing behavior that, together with other less easily quantifiable factors, are treated as surrogate measures for the likelihood of monopoly or collusive behavior. They also specify numerical thresholds beyond which the risk of anticompetitive effects arising is considered intolerable.¹⁴⁵ The approach of the merger guidelines can be adapted to

143. This formulation includes the duration of the cost increase as well as its size. If an exclusionary rights agreement raises rivals' costs for one day, to take an extreme example, competitive harm is unlikely. When we refer to an increase in costs, we mean those costs that persist long enough to affect firms' long-term pricing opportunities and strategies. The duration of the cost increase also affects the degree to which variable, rather than fixed, costs are increased. *See supra* note 129.

144. 49 Fed. Reg. 26,824 (1984) [hereinafter 1984 DOJ Merger Guidelines]. These guidelines replaced merger guidelines issued by the Justice Department in 1982 which, in turn, superseded Department merger guidelines promulgated in 1968. 2 Trade Reg. Rep. (CCH) ¶ 4500 (1971). In 1982, the Federal Trade Commission issued a "Statement Concerning Horizontal Mergers," *id.* at ¶ 4516, which has had little practical influence on merger policy or practice. The DOJ and FTC merger guidelines and statement are reviewed in detail in T. BRUNNER, T. KRATTENMAKER, S. SKITOL & A. WEBSTER, *MERGERS IN THE NEW ANTITRUST ERA* (1985) [hereinafter *MERGERS IN THE NEW ANTITRUST ERA*].

145. The use of guidelines might be justified on the grounds that they are accurate predictors of

the similar problem of gauging the probable effects of an exclusionary restraint.¹⁴⁶

Two features of the DOJ guidelines are particularly relevant here. First, the guidelines specify that the market power that merger enforcement is designed to avoid is the ability to raise price by a certain amount over a benchmark level.¹⁴⁷ Second, the guidelines seek to use objective standards to define those markets in which firms are most likely to be able to coordinate price increases or unilaterally to restrain output. Such markets, according to the guidelines, contain some entry barriers and exhibit a certain concentration level as defined according to the Herfindahl-Hirschman Index (HHI).¹⁴⁸ This measure is tempered by judgments

anticompetitive results or that, although not as reliable as one might desire, they are as cost-effective as the results of more protracted, open-ended litigation.

146. Of course, one who disagrees in principle with the approach of guidelines would not care to take this step. If the objection is to the concept or practice of using numerical measures as predictors of behavior, then presumably the preferred approach would be to follow the more general standards for assessing the legality of exclusionary rights agreements developed above. If the objection is that the merger guidelines use incorrect measures, either because the numbers are wrong or the wrong factors are used as predictors, then the following analysis can be altered easily to substitute the preferred for the disfavored numbers or predictors. For example, one might regard an 1800 HHI as relatively insignificant and draw a sharp distinction at a 2500 HHI. Someone else might believe useful guidelines should employ more prominent and systematic measures of entry barriers rather than market concentration. See, e.g., Salop, *Measuring Ease of Entry*, 31 ANTITRUST BULL. 551 (1986).

147. 1984 DOJ Merger Guidelines, *supra* note 144, §§ 2.11, 2.31. The guidelines appear to treat the ability to raise price by 5% over current price as a measure of market power. There is dispute, however, over whether 5% is truly the guidelines' benchmark. The dispute arises because of the kinds of results the merger guidelines generate. Under the guidelines, a market is a group of products within a geographic region such that a hypothetical firm that monopolized all those products could profitably impose a "small but significant and nontransitory" increase in price. *Id.* The DOJ states that its objective methods for defining markets under these guidelines "in most contexts will use a price increase of five percent lasting one year." *Id.* § 2.11.

One way to read the policy underlying these tests is that the guidelines permit a complete merger of all firms producing a product whose price could be raised by at most 4%. Hence, market power under the guidelines can be described as the ability to raise price by at least 5%.

Frederick Warren-Boulton has suggested, however, that the guidelines also would interdict a merger of far fewer than all the producers of a product whose price profitably can be raised only slightly more than 5%. Hence, one might say that the guidelines' policy is to combat relatively small increases in the probability of collusion, which translate to effective expected price increases of much less than 5%.

Yet another interpretation of the guidelines' results is that they rest upon an implicit understanding of business judgments: that firms will not bear the risks and costs of attempting to collude or coordinate on pricing unless they can expect at least a 5% price increase if they succeed.

Of these three interpretations, the first suggests that if the merger guidelines are taken to express a general antitrust policy, exclusionary rights that increase rivals' marginal costs by 5% or more are suspect. The second interpretation argues for a lower figure. The third raises an empirical judgment about how firms assess the relative costs and risks of seeking price increases by (a) express or tacit horizontal price coordination or (b) vertical exclusionary rights contracts.

A second issue is the price benchmark used to evaluate the price increase. Whether the proper price benchmark should be the current price (as in the 1984 guidelines) or the competitive price depends on whether the restraints are already in place and whether opportunities for deconcentration are intended to be preserved.

148. *Id.* § 3.1. The HHI is calculated by squaring the market share of each firm in the relevant market and summing the resulting values. The weight placed on concentration measures like the HHI is controversial. See, e.g., CONFERENCE ON INDUSTRIAL CONCENTRATION, INDUSTRIAL CONCEN-

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based on certain other objective "plus" factors regarding the ease of collusion, such as the homogeneity of the market's product and the ability of smaller firms in the market to expand output.¹⁴⁹ The guidelines provide that mergers among non-dominant competitors are likely to be challenged where the post-merger industry HHI in the market exceeds 1000 and the HHI increase due to the merger is more than 100, or where the post-merger HHI has increased more than 50 to a total of over 1800. Where one of the merging firms already has a thirty-five percent market share, a smaller HHI increase renders the merger suspect (the "leading firm proviso").¹⁵⁰

These measures of intolerable effects and methods of estimating their likelihood could simply be carried over to the rule for determining when an exclusionary rights agreement is sufficiently likely to raise rivals' costs and give power over price enough to warrant prohibition.¹⁵¹ A number of considerations suggest, however, that enforcers and courts should be more tolerant of potentially anticompetitive vertical exclusionary rights agreements than of potentially anticompetitive horizontal mergers. First, some observers probably believe that, as compared to horizontal mergers, agreements conferring exclusionary rights also produce efficiencies more often, or produce larger efficiencies, or both.¹⁵² Second, mergers are more permanent than commercial contracts, and any harm they cause is thus more

TRATION: THE NEW LEARNING (H. Goldschmid, M. Mann & J. Weston eds. 1974).

149. 1984 DOJ Merger Guidelines, *supra* note 144, § 3.0.

150. *Id.* § 3.12.

151. For example, if the claim is that a restraint creates an unacceptable likelihood that unrestrained firms will coordinate their pricing decisions and thereby raise the costs of the purchasing firm's rivals (Frankenstein Monster), and it appears that entry barriers exist, one could ask whether the post-restraint HHI of the unrestrained suppliers would be deemed intolerably high by the merger guidelines. Since the merger guidelines purport to address the same questions our exclusionary rights analysis yields—for example, how much market power is too much, at what point does concentration unduly threaten coordination—a simple transfer of the numerical thresholds in the merger guidelines to a set of standards for screening out unconvincing vertical restraints complaints might seem logical and sensible (or, more precisely, as sensible as the merger guidelines).

In fact, however, a simple transfer of numbers may be quite illogical. As noted above, all guidelines substitute quick and generalized analysis, based on objective data, for slower and more particularized study of additional relevant facts. As such, guidelines are not only attempts to arrive at sound surrogate figures for conclusions that could be verified only by complicated, lengthy, detailed examination of firms and industries, but are also exercises in determining an acceptable margin of error. In choosing to draw a line above which the HHI is taken to indicate a very substantial likelihood of collusion—and therefore a high probability that the merger will be challenged—the guidelines drafters had to choose how much to err on the side of permitting mergers that upon close inspection would be likely to generate market power and how much to risk blocking neutral or procompetitive mergers. Balancing these two kinds of error, the drafters chose two balance points, 1000 and 1800. Because the probable errors may not be the same for cases involving mergers and those involving vertical restraints, a simple transfer of these numbers to exclusionary rights cases may be illogical.

152. See, e.g., R. BORK, *supra* note 1, at 217–22, 225–31 (same); L. SULLIVAN, *supra* note 2, at 613–17, 667–69 (efficiency justifications more likely and more important in vertical mergers than in horizontal mergers); see also O. WILLIAMSON, *MARKETS AND HIERARCHIES: ANALYSIS AND ANTI-TRUST IMPLICATIONS* (1975). In principle, vertical restraints are more easily aimed at efficiency goals; they allow the parties to integrate only to the point necessary to reduce costs.

lasting. For the same reason, anticompetitive exclusionary restraints can be remedied more cheaply and more quickly than anticompetitive horizontal mergers. Third, it is often claimed that the efficiencies that horizontal mergers produce can usually be obtained by the less threatening method of internal expansion.¹⁵³

The policy considerations are not all one-sided, however. For example, mergers can revitalize firms.¹⁵⁴ Further, the more complete integration of the merger may make certain efficiencies not only more permanent, but of greater magnitude. Alternative, less restrictive vertical restraints may exist that provide equivalent efficiency benefits without increasing rivals' costs or raising entry barriers.¹⁵⁵ Finally, an exclusionary vertical agreement can solidify cooperation among competing firms. Embedding the collusive agreement in a vertical contract can make it easier and more credible to prevent cheating because the purchaser may be well situated to monitor the suppliers and (absent antitrust strictures) enforce the contract. At the same time, purchasers who gain from collusion against their rivals can transfer some of their extra profits back to the suppliers. In this way, they can make some of the side payments that may be necessary for successful coordination.¹⁵⁶

Thus, whether the merger guidelines' particular numerical thresholds should, where appropriate, be grafted directly onto a set of standards for vertical restraints cases depends on a judgment about the relative desirability of tolerant attitudes towards mergers and exclusionary rights agreements. We can, however, describe when standards of measurement like those in the Department's guidelines might facilitate assessing antitrust attacks on exclusionary rights agreements and what kind of specific numerical standards might be adopted by analogy to the merger guidelines.¹⁵⁷

1. *Bottleneck*

Whether remaining sources of supply are higher-cost and therefore necessarily higher-priced than restrained suppliers is a question that must be

153. See, e.g., 1968 Department of Justice Guidelines at pt. 10, 2 Trade Reg. Rep. (CCH) ¶ 4510 (1971).

154. 1984 DOJ Merger Guidelines, *supra* note 144, at pt. 1.

155. Whether a less restrictive alternative is available may depend on the type of exclusionary right at issue. This highlights a problem with establishing general guidelines for varied types of exclusionary rights. One could argue, for example, that tying arrangements and overbuying allegations should be subjected to different guidelines because alternative methods for achieving possible efficiency gains are not as widely available for one type of conduct as for the other.

156. See Krattenmaker & Salop, *supra* note 103, at 111-12.

157. Exclusionary practices not directly involving input suppliers also can be analyzed using the methods set out in this Article. For example, if a firm is alleged to have dynamited its rival's factory, the first question to ask is whether that conduct significantly raised the rival's costs.

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answered directly. No surrogate standard exists—nor should one be necessary or particularly helpful—for determining whether restrained suppliers control an “essential facility” or a “bottleneck.”

The question remains whether the cost increase is large enough to give the advantaged purchasing firm too great a power over price. The Department's guidelines suggest that the cost increase is unacceptable if it means that excluded rivals cannot avoid experiencing an increase of some specified amount (e.g., five percent) in their costs. Those who prefer a deeper or shallower safe harbor for exclusionary rights agreements than for mergers might adopt a higher or lower figure. Whatever number is chosen, the central point is that the likelihood that a price increase will confer monopoly power on competitors is a function of both the size of the increase and the magnitude of the particular factor of production in the firms' overall costs of doing business.

We denominate as the cost share, or CS, the percentage of rivals' costs that is accounted for by the input involved in the exclusionary rights agreement.¹⁵⁸ Cost share is relevant to all of the mechanisms of raising rivals' costs that we discuss. The smaller the cost share of the input, the less will be the effect on rivals' overall costs of a price increase for that one input. For example, if retailing services represent forty percent of the costs of selling shoes, foreclosure of that input will allow a shoe price increase four times as great as that which could be obtained were retailing only ten percent of costs.

2. *Real Foreclosure*

Whether the exclusionary rights arrangement will so limit remaining supply available to rivals that it will lead them to bid up the price of that supply, thereby increasing their costs to the point that the purchaser obtains power over price depends on the cost share, on what we call the net foreclosure rate, and on factors concerning market definition and entry barriers. The net foreclosure rate (NFR) measures the shrinkage resulting from the exclusionary rights agreement of supply open to rivals. The NFR is the percentage of the suppliers' capacity that was available to rivals before the exclusionary rights agreement was adopted but that is no longer available as a result of the agreement. Thus, any pre-agreement consumption of supply by the purchasing firm is subtracted from the total amount of supply foreclosed and from the amount previously available. For example, assume that Brown Shoe accounted for ten percent of shoe

158. As a practical matter, one can often assume that marginal costs equal average incremental costs and treat cost share as the share of incremental costs accounted for by the restricted supply product. See *supra* note 129.

manufacturing sales and Kinney controlled thirty percent of shoe retailing capacity. If Brown acquired Kinney and then excluded other shoe manufacturers from selling through Kinney (i.e., buying shoe retailing services from Kinney), the net foreclosure rate would be twenty-two percent.¹⁵⁹ The greater the share of supply foreclosed, the greater the price increase the purchaser would be able to charge in the output market in which it sells.

The percentage increase in rivals' unit cost of the foreclosed input exactly equals the net foreclosure rate if the rivals' ability to substitute to alternative input suppliers implies an elasticity of demand for the input equal to unity and if the supply of the input cannot be expanded through entry or expansion of unexpected suppliers when the input price begins to rise.¹⁶⁰ In this case, the NFR equals the percentage reduction in output. If, in addition, elasticity is one, then the percentage increase in price equals the percentage reduction in supply and rivals' incremental costs rise by the product of NFR and CS. The exclusionary rights strategy will raise the input price by more or less than the net foreclosure rate, depending on the rivals' ability to substitute to other inputs, the degree to which new suppliers and remaining nonforeclosed suppliers can take up the excess demand created by the foreclosure, and conditions in the output market.¹⁶¹ These issues are analyzed in gauging market definition and ease of entry in the purchaser's output market, using the standard tools of the merger guidelines.

3. *Cartel Ringmaster*

Whether the supplying firms from which the purchaser has obtained exclusionary rights have agreed to refuse to deal with or to raise price to the purchaser's rivals is a question of fact. Assuming that they have, the agreement nonetheless may prove ineffectual for any of three reasons.

First, as previously discussed, the increase in excluded rivals' input costs may be too insignificant to give the purchaser power over price. Second, the restrained suppliers may be sufficiently numerous and small that the agreement may break down as they succumb to the desire to shave price or to deal with rivals despite the contract. This constraint on price rises should not be overstated. Frequently, the exclusionary rights agree-

159. This is calculated as follows: Before the merger, 90% of the supply capacity was available to Brown's competitors. Since Brown foreclosed 20% of that 90%, the net foreclosure rate is 20% divided by 90%, or 22%. See 2 P. AREEDA & D. TURNER, *supra* note 129, at 376-85, for an analysis of measuring foreclosure.

160. This ignores, for now, any increase in the output market price. That price rise is taken into account below.

161. 1984 DOJ Merger Guidelines, *supra* note 144, at pt. 2 (discussing these issues of "factors" in context of gauging market definition and entry barriers in input market).

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ment itself will serve as a vehicle by which the purchaser of the rights prevents such defections by monitoring and legally enforcing the restrained suppliers' agreements to act in concert. But the incentives of these firms to compete with each other may override the purchaser's ability to keep them in line, particularly if non-price competition is an essential factor in that market and enforcement of the agreement by the purchaser is difficult. The likelihood that competition among restrained suppliers will undo the purchaser's strategy could be measured by treating the restrained firms' capacities as a "market" and then computing the HHI for that market. The higher the HHI, and the more guidelines "plus" factors suggest that collusion is more likely, the greater the probability that the price discrimination will persist.

Third, competition from unrestrained firms may undermine the strategy. That likelihood can be measured by analyzing the competitive significance of a hypothetical merger among the restrained firms by comparing two HHIs. Initially, one would calculate the HHI of the entire supply market before the restraint, the "pre-merger" HHI. Next, the HHI of the supply market after the restraint should be calculated, treating all restrained firms as though they had merged.¹⁶² This corresponds to the post-merger HHI. The "post-merger" HHI and the increase in the HHI, together with consideration of the magnitude of entry barriers and the presence or absence of plus factors indicating an enhanced likelihood of collusion, measure whether competition from unrestrained firms is likely to erode the scheme.¹⁶³

Putting these three possibilities together and borrowing directly from the Department of Justice merger guidelines,¹⁶⁴ a colorable claim is advanced under the Cartel Ringmaster theory if the following three conditions are met: (a) The exclusionary rights agreement directs the supplying firm(s) to refuse to deal with the purchaser's rivals, or to deal with them on terms so disadvantageous that, if implemented, the differential will raise rivals' costs by some stated amount (e.g., five percent);¹⁶⁵ (b) The HHI of a hypothetical "market" consisting only of the restrained firms exceeds 1000 (or 1800) and other industry characteristics do not indicate that price coordination is exceedingly difficult; (c) A horizontal merger of

162. Again, capacity rather than output generally is the proper base for calculating concentration measures in exclusionary rights cases.

163. One "plus" factor would be the ability of the purchaser to transfer profits back to the restrained firms through the exclusionary rights agreement. *See supra* text accompanying note 156.

164. *See supra* text accompanying notes 148–50 (discussing guidelines' general approach to gauging market power).

165. One may want to prevent input price increases of less than five percent, especially in light of the horizontal coloration of this practice. Indeed, as we discuss elsewhere, Cartel Ringmaster is the one place where proof of power over price may be unnecessary; the vertical restraint may be a veil for express collusion among suppliers. *See supra* notes 102, 136.

all the restrained firms would violate the DOJ guidelines. In other words, the HHI of the input supply market, treating all restrained firms as one, exceeds 1000 (or 1800), has been increased by at least 100 (or 50) by the restraint, and does not exhibit low entry barriers or characteristics indicating that oligopoly pricing coordination would be unusually difficult.¹⁶⁶

4. *Frankenstein Monster*

Where the restrained firms have promised to discriminate against or to refrain entirely from dealing with the purchaser's rivals, and the asserted harm is that unrestrained firms can then collude against those rivals by cutting sales to rivals in order to raise price, the analogy to the horizontal merger guidelines is quite direct. The question is whether removal of the restrained firms from the market unacceptably increases the likelihood that the unrestrained firms will coordinate prices or unilaterally restrict output and thus significantly raise rivals' input costs.

Following the guidelines' methodology, one should simply compare the pre-restraint supplier HHI confronting the purchaser's rivals (all capacity of all suppliers) with the post-restraint HHI (treating all unrestrained firms as a "market" and excluding restrained firms from that market), taking into consideration entry barriers and the presence or absence of plus factors. For those who would preserve a numerical consistency between the concentration levels for merger and exclusion standards, the restraint is suspect if the post-restraint HHI exceeds 1000 (or 1800) and is 100 (or 50) greater than the pre-restraint HHI (or falls within the dominant firm proviso), and if the post-restraint market does not exhibit low entry barriers or characteristics indicating that pricing coordination would be unusually difficult.¹⁶⁷

B. *Does the Purchaser Gain Power To Raise Price?*

Once it is established that the purchasing firm has raised its rivals' costs, the second prong of the antitrust test determines whether the purchaser thereby has gained monopoly power, the ability to raise the price at which it sells. The likelihood of price increases in the output market, and their probable size, depend on the size and competitive significance of the excluded rivals, the market share of the purchaser of the exclusionary right, and the effect of the exclusionary rights on ease of entry and expan-

166. Those who would treat vertical restraints cases more or less leniently than horizontal mergers will, in adopting measures for gauging market power and the likelihood it will be exercised, wish to raise or lower one or more of the foregoing numbers.

167. Those championing a more interventionist policy toward horizontal mergers than toward exclusionary rights agreements would increase one or more of those numbers, while those disfavoring exclusionary agreements would move in the opposite direction.

sion. Again, one can turn to the Department of Justice merger guidelines for methods to streamline the inquiry by designating specific, objective measures by which to judge the arrangement. Whether the resulting reduction in rivals' actual and potential supplies will drive up prices depends on the ability and willingness of consumers to switch to other unexcluded firms (including entrants) and on the incentives of the purchasers of exclusionary rights and other unexcluded firms to continue to compete. These issues are the central questions that the Department's guidelines address.¹⁶⁸

Because the merger guidelines pose the same questions raised by this aspect of the vertical restraints analysis, the simplest technique might be to borrow the merger guidelines directly by treating the purchaser of an exclusionary right as having merged with all the excluded firms whose costs were raised significantly. In this fashion, the question whether a firm, by employing an exclusionary rights agreement, has acquired power over price becomes identical to the question asked by the merger guidelines: Does the absence via merger (here, via exclusion) of the acquired (here, excluded) firm as a constraint on the acquiring (here, purchasing) firm permit the latter to raise prices, either unilaterally or by coordinating with its competitors?¹⁶⁹

This approach, while simple, would overlook some very important differences between mergers and vertical exclusion. Although the purchasing firm has significantly and effectively raised its rivals' costs, it has not gained the complete control over them that it could achieve by merging with them. Disadvantaged rivals remain free to engage in non-price competition and to seek over the long run to develop alternative sources of supply. Moreover, the purchasing firm cannot directly share above-normal profits with its rivals to prevent exploitation of these opportunities as well as it could were they merged. Finally, a strategy of indirectly restricting rivals' production by raising their costs is a less efficient (more costly) method of restraining output than simply ordering a reduction in production in a merged firm.

Another reason not to borrow the merger approach without qualification is that more than one firm may acquire an exclusionary right that raises its rivals' costs, and two firms each may purchase exclusionary rights to exclude the other.¹⁷⁰ Competition among these purchasers may

168. See 1984 DOJ Merger Guidelines, *supra* note 144, pts. 2, 3.

169. In the case of exclusion, the issue of unilateral restraints on output reflected in the "leading firm proviso" of the guidelines would often arise. See *id.* § 3.12. On the issue of the proper price benchmark, see *supra* note 147.

170. See, e.g., *Standard Oil Co. of Cal. v. United States*, 337 U.S. 293 (1949); *United States v. Terminal R.R. Ass'n*, 224 U.S. 383 (1912).

prevent price from increasing. In such a case, excluded firms may have been harmed, but consumers have not. Accordingly, where many firms have purchased exclusionary rights, one should determine whether competition among them is likely to remain robust and whether competition from other unexcluded firms (substitutes and potential entrants) can constrain their price increases.

On the other hand, the purchaser of exclusionary rights gains the benefit of the higher prices caused by restricting the output of competitors. This amount surely exceeds the share of joint profits gained by restricting the output of a wholly owned merger partner.¹⁷¹ In addition, disadvantaged rivals may have significant incentives to cooperate with a competitor that has raised their costs by exclusionary tactics. They may prefer to join the competitor in restricting output to raise price, instead of combatting their cost increases.¹⁷² Exclusionary rights agreements also can create or enhance barriers to entry, reducing the check on prices provided by potential competition. Finally, restricting output by raising rivals' costs may create more social waste than a simple voluntary output restriction following a merger. For all these reasons, the specific numerical thresholds set forth in the horizontal merger guidelines almost certainly should not be borrowed intact for measuring this aspect of plausible exclusionary rights claims.

This catalog of differences between mergers and vertical restraints suggests a preferred approach that remains consistent with the basic thrust of merger analysis. One can treat as the antitrust "market" the capacity of only those firms purchasing exclusionary rights and other unexcluded firms. If that "market" contains entry barriers, including any created by the exclusionary agreement, the next step would be to compute the HHI for that "market," as compared to the pre-exclusion market of all established firms including those excluded by the agreement. These HHIs would then be measured against the merger guidelines' standards and other objective plus factors indicating a higher or lower likelihood of collusion.¹⁷³

In this fashion, one captures two key elements of the likelihood that the firm gained power over price. The significance of foreclosure¹⁷⁴ is mea-

171. In the latter case, one's partner restricts output whereas, in exclusionary rights strategies, the output of an independent firm is reduced. In addition, in the case of Cartel Ringmaster, the purchaser of exclusionary rights may be compensated further by the suppliers that gain from the exclusion.

172. For technical analyses, see Salop, Scheffman & Schwartz, *supra* note 73; R. MACKAY, *MERGERS FOR MONOPOLY: PROBLEMS OF EXPECTATIONS AND COMMITMENTS* (FTC Bureau of Economics Working Paper No. 112, 1984).

173. The standards would be inflated or deflated to account for any different attitude toward exclusionary rights agreements.

174. See *supra* Section IV.B.2.a.

sured by the change in HHI caused by moving from an initial market of all rivals to a later one containing only firms purchasing exclusionary rights and unexcluded firms. The probabilities of unilateral output restraints and price coordination¹⁷⁵ are measured by the level of the HHI for the post-restraint output market.¹⁷⁶ To determine whether a third element, the raising of entry barriers by the exclusionary rights agreements is present,¹⁷⁷ one would examine any effects on potential entrants. If the exclusion raises the costs of likely potential entrants to the point at which they will not enter in the face of a small price rise, then one cannot argue that potential competition will obviate any harmful effects in the established firms' markets.¹⁷⁸

In short, the power over price prong of the test for exclusionary restraints could proceed from the underlying concepts of the merger guidelines. However, the test should not slavishly copy the guidelines' numerical thresholds, if only because the role of market power is somewhat different in exclusionary restraints.¹⁷⁹ Moreover, the direct applicability of the guidelines is even further attenuated by the fact that the issues presented by an exclusion case differ considerably from those in horizontal

175. See *supra* Section IV.B.2.b.

176. Examining only the HHI and changes in HHI means that exclusions in unconcentrated markets will go unchallenged. Ordinarily, this makes sense. As discussed in Section VI, a firm with small market share is unlikely to be able to acquire profitably exclusionary rights that are anticompetitive. To be successful, the small firm would have to collude with its competitors in purchasing rights to exclude other rivals. That horizontal collaboration should be enough to render the agreement illegal. See, e.g., *Interstate Circuit, Inc. v. United States*, 306 U.S. 208 (1939); *United States v. Terminal R.R. Ass'n*, 224 U.S. 383 (1912); see also *supra* note 15. However, where governmental processes are invoked to achieve exclusion, coordination among small firms may be easier to accomplish and more difficult to describe as naked horizontal behavior. Consider, for example, the use of trade associations to impose licensing or other costs on rivals of established firms. In such cases, it may be preferable to calculate the fraction of industry capacity accounted for by firms whose costs were raised rather than to rely exclusively on HHI figures.

177. See *supra* Section IV.B.2.c.

178. As discussed earlier, one could view the purchaser of exclusionary rights as analogous to the acquirer of the excluded firms. For this reason, the DOJ guidelines on acquisitions of potential entrants also can inform the evaluation of the effects of exclusionary rights agreements on ease of entry. DOJ Merger Guidelines, *supra* note 144. The DOJ guidelines examine the HHI in the market of the established firm, *id.* § 4.131, that firm's market share, *id.* § 4.134, the condition of entry into the market, *id.* § 4.132, and any cost advantages of the acquired potential entrant, *id.* § 4.134. Similarly, to evaluate claims that exclusionary rights create or enhance entry barriers, one would examine the HHI of the market to determine if tacit coordination of established firms were possible and if potential entry provided a check on coordination. If so, one would examine the effect of the exclusion on the costs of the most likely potential entrants. The market share of the exclusionary rights purchaser would be relevant in the analysis of counterstrategies, discussed *infra* Sections VII.A., VII.B.

179. As discussed, *supra* text accompanying notes 130–33, the purchaser of an exclusionary rights agreement need not gain classical market power (i.e., be able to price above marginal cost without losing all of its sales) to attain power to raise price. Even if the remaining "market" of unexcluded firms is unconcentrated, those firms can gain power to raise price if excluded rivals accounted for a significant fraction of capacity and the market has entry barriers.

merger cases. It is therefore necessary that some additional factors, not specified in the merger guidelines, be considered.¹⁸⁰

First, in exclusionary rights cases, one has more information about rivals' incentives to restrict output than in the typical merger case. The increase in rivals' costs creates a clear incentive for them to reduce their output. Thus, the fraction of industry output accounted for by rivals whose costs have been raised is an important additional element to examine.

Second, it is useful to inquire whether the exclusionary right raises the costs of an input used on a fixed cost basis or whether the cost of the input is properly included in the rivals' short run incremental costs. Because established firms' prices in the short run depend on short run incremental costs, then only those exclusionary rights that increase short run incremental costs will lead to immediate pressure on price.¹⁸¹ In contrast, exclusionary rights that only raise established rivals' fixed costs will not give the purchaser the ability to raise its price unless the cost increases are high enough to induce some rivals to exit the market in the long run or to forego expansion in a growing market. This cost allocation analysis may be difficult in practice.¹⁸²

Finally, price elasticity of demand for the purchasing firm's product should be considered. If elasticity is low, the firm is more likely to turn its rivals' disadvantage to greater consumer harm and the restraint should be more suspect. Conversely, if price elasticity is high, challenge should be less likely.¹⁸³

VII. PROFITABILITY

We have argued that antitrust enforcers and courts should neither routinely embrace nor casually dismiss claims of undue, unfair or anticompetitive exclusion stemming from agreements between sellers and purchasers of inputs. Rather, the issues raised by such claims should be more carefully defined and evaluated against the consumer welfare goals of antitrust

180. For technical analyses, see S. SALOP & D. SCHEFFMAN, *supra* note 73; Salop, Scheffman & Schwartz, *supra* note 73.

181. Exclusion that requires rivals to reduce their prices to maintain competitiveness has effects equivalent to increases in marginal costs because such firms are less able to constrain competitors' price increases. See *supra* note 129.

182. Which inputs are fixed and which are variable may differ from firm to firm, according to the time period under consideration, whether one is evaluating entry, expansion or contraction or whether product quality is an issue. See *supra* note 129.

183. Price elasticity may be difficult to measure precisely. However, the DOJ Merger Guidelines' approach to market definition sometimes gives an approximate value. It can sometimes be inferred by econometric analysis or from the price-cost margin. See D. SCHEFFMAN & D. SPILLER, GEOGRAPHIC MARKET DEFINITION UNDER THE DOJ MERGER GUIDELINES (FTC Bureau of Economics Working Paper No. 129, 1985); Baker & Bresnahan, *The Gains from Merger or Collusion in Product-Differentiated Industries*, 33 J. INDUS. ECON. 427 (1985).

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law. Exclusionary agreements threaten these goals when they give a competitor power, by raising its rivals' costs, to raise price above pre-agreement levels.

The effort to develop and apply standards or to resolve claims of exclusion in detail would be unnecessary, however, if disadvantaged firms could always fend for themselves. If exclusionary rights agreements are likely to be unprofitable for purchasers because suppliers will have limited incentives to sell the rights and because their rivals will usually have available effective counterstrategies, the techniques of exclusion sketched above should be of no concern. Anticompetitive exclusion would be sufficiently impractical or ineffectual so that its theoretical harms could be assumed to be nonexistent in fact.

Certainly, in most industries, exclusionary rights contracts cannot be profitably employed for anticompetitive ends. Where the markets involved are unconcentrated and lack entry barriers (and the exclusionary right does not itself create an entry barrier), an exclusionary rights agreement is unlikely to raise rivals' costs significantly or to give the purchaser power over price. In still other markets, a firm or group of firms may already possess so much market power that the exclusionary right has no further effect.¹⁸⁴ In others, regulations apart from those imposed by antitrust law may make an exclusionary rights strategy impossible by imposing on suppliers a duty to deal with all on equal terms.

But suppose a firm could gain or enhance its market power by acquiring an exclusionary right from an input supplier. Although such a strategy theoretically could succeed, any of three considerations might suggest that antitrust policy should be indifferent to that possibility. First, rivals might be expected in most or all cases to outbid the potential purchaser of an exclusionary right. If rivals would pay sellers more *not* to be excluded than the firm would be willing to pay for exclusion, then the exclusionary deal would not be struck. Second, even without antitrust inhibitions, suppliers might not gain from selling exclusionary rights because they would thereby reduce their sales and profits. Some might argue, therefore, that we can expect that suppliers will have little incentive to enter into anticompetitive exclusionary rights agreements. Taken together, these two considerations reveal that, to obtain an exclusionary right, the purchaser must be prepared to pay more than what the targeted rivals would pay to avoid exclusion plus the additional profits that suppliers could gain from continuing to sell to the potentially excluded rivals. As a result, firms

184. In this case, however, enjoining the exclusionary right may increase the potential for reduction in market power in the future. See *supra* note 147. The 1984 DOJ Merger Guidelines evince no concern over this issue, but the 1968 guidelines did. Compare 1984 DOJ Merger Guidelines, *supra* note 144 with 1968 DOJ Merger Guidelines, *supra* note 144, at pt. 4.

often will be unable to profit from purchasing exclusionary rights. Third, as noted above, some exclusionary rights agreements may reduce their purchaser's (or suppliers') costs. Perhaps this phenomenon might occur most of the time and perhaps these efficiencies would (or should be assumed to) outweigh any competitive harms arising from increases in rivals' costs.

The remainder of this section treats, in order, these three issues of counterstrategies, suppliers' incentives, and efficiencies. We conclude that none of these considerations offers a reason to avoid the inquiries, developed earlier, into the effects of exclusionary agreements.¹⁸⁵ Exclusionary practices that both raise rivals' costs and confer on their purchasers discretion to raise price are, because of those facts alone, often likely to be profitable for suppliers and impervious to counter-bidding by excluded rivals and, where they present potential efficiency defenses, generally do so in a context in which it is difficult, consistent with current antitrust law, to justify recognizing such defenses.¹⁸⁶ Certain factors increase the probability that the potential purchaser can offer an amount sufficient to induce the suppliers to grant exclusionary rights. These factors could be utilized in refining standards of liability. First, as noted above, the larger the purchaser's market share, the greater is its reward for achieving power over price, hence the greater its willingness to pay for an anticompetitive exclusion. Profitability thus is more likely the higher the purchaser's market share. Second, the demand for the supplier's product may be so broad that losing only those few buyers who compete with the purchaser may have negligible effects on the supplier's revenues. This suggests that courts should be more willing to intervene when the purchaser's rivals account for only a small fraction of the input suppliers' total sales.

A. *Rivals' Counterstrategies*

Locating substitute inputs is one type of counterstrategy. For example, if Broadway-Hale had obtained a promise from GE that GE would not sell to Klor's, Klor's might have avoided any damage by buying from Westinghouse. In terms of the previous analysis, the exclusionary right would not have raised the costs of Broadway-Hale's rivals in a predictable manner.

185. Our attention was sharply drawn to the issues discussed in Section VII by several thoughtful comments made at a workshop devoted to discussion of exclusion at Georgetown University Law Center.

186. For discussion of counterstrategies and criticisms of arguments that exclusion can be an effective anticompetitive strategy, see Easterbrook, *supra* note 59; Kaplow, *Extension of Monopoly Power Through Leverage*, 85 COLUM. L. REV. 515 (1985); M. Roe, *Monopoly Power and Leverage: The Double Count Argument* (rev. ed. Mar. 1986) (unpublished manuscript).

However, rivals may have still other counterstrategies available to them. Suppose the exclusion, if effectuated, would raise rivals' costs and confer power over price on the purchaser. Can rivals be expected ordinarily to follow the counterstrategy of outbidding the potential purchasers of exclusionary rights to escape exclusion? That is, might Klor's be able to pay GE more not to be excluded than Broadway-Hale was willing to pay for the right to exclude Klor's?¹⁸⁷ If the exclusion would be inefficient, rivals might be willing to pay suppliers more to avoid their exclusion than purchasers would pay to obtain it.¹⁸⁸ Put more concretely, why would Klor's not counter Broadway-Hale by paying GE for an agreement that GE would continue to sell to Klor's?

The short answer is that the question is not relevant to the antitrust policy issues raised by exclusionary rights agreements. If rivals must pay the additional cost of admission to avoid cost increases from exclusion, then the admission fees themselves serve as the cost-increasing devices. Indeed, the purchaser of exclusionary rights might prefer this outcome because rivals' costs could be raised at a lower out-of-pocket cost to itself.¹⁸⁹

A second flaw in relying on counteroffers to prevent exclusion is that the argument for doing so demonstrates a misunderstanding of economic efficiency. The fact that the exclusion is economically inefficient does not imply that the rivals will outbid the exclusionary right purchaser. Many of the economic benefits of non-exclusion of rivals are conferred upon third parties who are not involved in the competitive bidding for the exclusionary right—the consumers of the product. Only if these consumers would share with the excluded rivals in the expense of outbidding the predator would inefficient exclusion be prevented.¹⁹⁰ Yet, unless the rivals

187. We are assuming here that Klor's and Broadway-Hale compete to purchase the right to exclude Klor's. This should be contrasted with the more complex case in which each firm competes for the right to exclude the other. We focus on the former case of a pure exclusionary right for two reasons. First, the complex right actually is composed of two pure exclusionary rights, one to exclude Klor's and the other to exclude Broadway-Hale. Second, as an analytic matter, the issue is not the identity of the excluded firm, but whether exclusion occurs and its effects on competition.

188. Cf. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1 (1960).

189. This analysis may be illustrated with the following numerical example. Suppose Broadway-Hale offered to pay the appliance manufacturers to reduce their sales to Klor's below their sales levels of previous years by proposing a price of \$50 per unit sales reduction. In that case, if suppliers had previously charged Klor's a price of \$200, they would now be unwilling to sell to Klor's at any price less than \$250. The suppliers' effective marginal (opportunity) costs would be raised to \$250, once the opportunity to be compensated by Broadway-Hale was taken into account. The analysis would be similar if Broadway-Hale offered to pay a number of appliance manufacturers to exclude Klor's, either on a per-unit basis or altogether on an all-or-nothing basis.

190. See Easterbrook, *supra* note 59, at 270. For a critique, see M. Roe, *supra* note 186, at 34 n.42. Indeed, in a recent article, Salop, Scheffman & Schwartz, *supra* note 73, at 124–25, have shown, in the context of exclusionary government regulation, that when consumers do not enter into the bidding process on the side of rivals, competition for exclusionary rights will replicate the seller cartel outcome, not the competitive equilibrium. This analysis of public rent-seeking also applies to the type of private rent-seeking activities involved in the purchase of exclusionary rights from non-

are selling to a market comprising exclusively a limited number of large buyers, consumers are unlikely to be sufficiently organized to add to the rivals' bids.¹⁹¹ Instead, small consumers will attempt to "free ride" on the expenditures of others. Put another way, competition is a public good and so society cannot depend on consumers to protect themselves from the adverse effects of exclusion of some sellers by others.¹⁹² Thus, there is no reason to expect that rivals would be able to outbid purchasers of exclusionary rights simply because exclusion would be inefficient.

Counterstrategies, however, are not always doomed to failure. Therefore, antitrust analysis should discriminate among cases according to the likelihood of successful counterstrategies. The parties' bids are determined by their probable respective gains and losses should the transaction occur. The purchaser stands to gain market power and its maximum bid reflects the prospect of those increased profits. Potentially excluded rivals, on the other hand, stand to gain only the pre-existing, more competitive price and profit levels if they are not excluded. Thus, as a general matter, because the purchaser has more to gain than rivals have to lose, it can bid more for the exclusionary right. Only if the industry (including unex-

governmental input sellers.

The following simple numerical example illustrates the point. Referring to the table below, suppose that by excluding some of its rivals, the purchaser can increase its profits by 100, from 100 to 200. Suppose that the rivals' profits would fall by 50, from 75 to 25. Finally, suppose that exclusion reduces the consumer benefits by 75, from 200 to 125. In this case, as shown in the table, exclusion is economically inefficient, because the total losses borne by consumers and rivals, 125, exceed the gains to the purchaser, 100.

	PRE-EXCLUSION	POST-EXCLUSION	DIFFERENCE
PURCHASER	100	200	100
RIVALS	75	25	(50)
CONSUMERS	200	125	(75)
TOTAL	375	350	(25)

In this case, the rivals, if necessary, would be willing to pay the suppliers an amount up to their full losses from exclusion, equal to 50 in this case, not to be excluded. However, the purchaser would be willing to pay more, up to its gain of 100, for the exclusionary right. Thus, in a competitive bidding situation between rivals and the purchaser in which consumers did not participate, the purchaser is likely to prevail even though aggregate efficiency then would be reduced. Of course, if consumers did participate fully on the side of rivals, that coalition would prevail in the absence of free riding. However, free riding likely would prevent full consumer participation in this case.

191. Even in this case, if the big buyers are themselves firms that compete with one another, they may have little incentive to provide such a benefit to each other. See Salop, *supra* note 51. In that case, efficiency would require customers of these buyers to enter the bidding on the side of the excluded rivals two levels up the chain of production. In addition, even where there is a limited number of large buyers, free rider and other bargaining problems may prevent coordination in the bidding process.

192. This is, in fact, a standard economic justification for antitrust law generally and, more specifically, for public enforcement of antitrust law. See, e.g., K. ELZINGA & W. BREIT, *THE ANTI-TRUST PENALTIES* 3-4 (1976); Kaplow, *supra* note 186, at 531-36; see also M. Roe, *supra* note 186, at 41 n.48 ("Could the consumer response be to band together and hire a single lawyer or law firm to control United? Might we call that banding together 'government' or 'The Sherman Act' and that law firm 'the antitrust division of the United States Department of Justice?'")

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cluded rivals) were able to achieve the collusive outcome without exclusionary rights or if the potentially excluded rivals were far more efficient than the purchaser of the rights would exclusion not reduce joint profits.¹⁹³

This analysis has two important implications. First, successful exclusion is more likely when the predator is large and the excluded rivals are small. The gains and losses from exclusion depend on the bidders' relative market shares as well as on the price received. For this purpose, then, market share is significant for its own sake, not simply as a proxy for traditional market power.

Second, certain exclusionary rights strategies inflict less harm on excluded rivals, given equivalent costs to the purchaser. Those strategies that harm rivals less in conferring a given benefit on the purchaser are more likely to succeed because they have a greater bang-per-buck for the purchaser. Excluded firms would be willing to bid less to counter those practices that inflict less additional cost on them. Therefore, the purchaser can offer less and still outbid its rivals. For example, exclusionary rights inflict less harm on rivals when they increase rivals' incremental costs relative to their fixed costs.¹⁹⁴ This distinction between incremental and fixed costs is important because of the way in which exclusionary rights raise prices.

Ignoring for the moment any constraints imposed by potential entrants, because short run market prices depend on short run incremental costs, only exclusionary rights that increase rivals' short run incremental costs will lead to immediate upward pressure on prices. In contrast, as discussed earlier in the analysis of power over price, exclusionary rights that only raise established rivals' fixed costs, so that average costs are increased without affecting short run incremental costs, will give the purchaser no ability to raise its price. However, because these cost increases inflict injury on these rivals, they would have an incentive to try to counter them. Thus, exclusionary rights that raise rivals' incremental costs appreciably and raise fixed costs only slightly are more likely to succeed than strategies that have the opposite effect.¹⁹⁵

193. In terms of the numerical example set out *supra* note 190, it is not surprising that the gains to the purchaser from excluding its rivals, equal to 100 in the example, would exceed the losses to rivals, equal to 50 in the example. The more vigorous competition in the absence of exclusion tends to drive prices down, reducing the profits for all.

For the basic argument, see Bain, *A Note on Pricing in Monopoly and Oligopoly*, 39 AM. ECON. REV. 448 (1949); Gilbert & Newberry, *Preemptive Patenting and the Persistence of Monopoly*, 72 AM. ECON. REV. 514 (1982); Salop, *Strategic Entry Deterrence*, 69 AM. ECON. REV. 335 (1979); Spence, *Entry, Capacity, Investment and Oligopolistic Pricing*, 8 BELL J. ECON. 534 (1977).

194. For a discussion of these cost concepts, see *supra* note 129.

195. Some strategies may have a disproportionately large effect on rivals' incremental costs. Such strategies would include, for example, an agreement with a supplier to eliminate a rival's quantity

Two other factors may reduce rivals' incentives to bid. First, should the exclusionary transaction be consummated, the purchaser that thereby also gains traditional market power may raise its price-cost margin, allowing its rivals to follow suit. These rivals may prefer being, in effect, conscripted cartelists to being unshackled competitors.¹⁹⁶ Second, if the agreement excludes several rivals and no one firm individually can buy itself out of the exclusion without all doing so, then the coordination costs will make it more costly for the rivals to cooperate in bidding against their exclusion.¹⁹⁷

In those cases, however, where rivals may buy their way out of the exclusion on an individual basis, it is unlikely that exclusion will be complete. Instead, a few rivals may succeed in avoiding complete exclusion by outbidding the purchaser, thereby preventing the purchaser from obtaining a perfect monopoly. Even in this case, though, too few rivals will succeed in this counterstrategy to deny the purchaser some power to raise price, although perhaps not to the complete monopoly level.¹⁹⁸

Finally, if exclusionary rights strategies have efficiency benefits—if they reduce the costs of the purchaser—the purchaser also is more likely to succeed in its strategy. The purchaser can increase its bid to reflect the cost savings. Thus, a successful exclusionary rights strategy does not always entail a reduction in consumer welfare. This issue is taken up in detail below after we discuss the suppliers' incentives to sell exclusionary rights.

discount or to create an overtime wage premium in a labor contract. Similarly, rights that affect only potential entrants and expansions of established firms are likely to be more cost effective to the purchaser, because entrants treat all costs as marginal and because expanding established firms often view most of their costs as marginal costs. In contrast, rights to exclude competitors from inputs used on a fixed cost basis are less likely to be cost effective. For example, at the limit, if a rival either must have one unit of an input or must exit from the market, as an airline needs a gate at an airport, then it would be willing to pay up to the present value of all its future profits (less the scrap value of its business) in a counterbid to prevent its exclusion.

196. See M. Roe, *supra* note 186, at 25–27.

197. See Salop, Scheffman & Schwartz, *supra* note 73.

198. See, e.g., R. MACKAY, *supra* note 172; Lewis, *Preemption, Divestiture, and Forward Contracting in a Market Dominated by a Single Firm*, 73 AM. ECON. REV. 1092 (1983). This analysis is analogous to the question of whether, in the absence of merger law, merger to the point of monopoly would generally occur. For example, in the analogous horizontal merger context, Mackay shows that a firm with significant initial market share will be able profitably to increase its market power and market share by buying up its competitors. R. MACKAY, *supra* note 172, at 19. However, Mackay also shows that the purchaser generally will be unable to achieve a complete monopoly. *Id.* at 21. Mackay's analysis further indicates that the likelihood of such mergers to (incomplete) monopoly increases with the initial market share of the purchaser. *Id.* This observation corresponds with the point made above that exclusionary rights strategies are more likely the larger the pre-exclusion market share of the potential purchaser.

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B. Suppliers' Incentives

That the purchaser often will bid more than its rivals may not necessarily mean that it will bid enough. The purchaser also must make an offer sufficiently large to compensate the suppliers for any loss in sales revenue they suffer. Although this constraint limits somewhat the gains to exclusion and sometimes may even prevent successful exclusion, the basic result will remain unchanged in most cases. Frequently, suppliers will have alternative outlets for their goods at little loss in revenue. The purchaser's product may be only one of several different products that employ the suppliers' goods as an input. Thus, little additional compensation would be needed to cover the suppliers' revenue shortfall from the loss of some customers in one of their markets.¹⁹⁹ Further, if the exclusion will give the purchasers power over price, there generally will be sufficient additional profits available to compensate the suppliers for their lost revenues, assuming transaction costs are not prohibitive.²⁰⁰

In any business arrangement, transaction costs in the form of "holdout" problems may be overwhelming. The holdout problem may describe another situation in which suppliers will not enter exclusionary rights agreements. If the purchaser tries to obtain exclusionary rights from many suppliers, some of those suppliers may have the incentive to hold out for a higher price. Suppliers may anticipate receiving a higher price for the input from rivals, assuming the purchaser succeeds in getting exclusionary rights from others,²⁰¹ or they may believe that the purchaser can be made to cede more of its monopoly profits. Of course, if enough suppliers do hold out, the exclusionary rights strategy will fail and rivals' costs will not be raised.

These holdout problems, however, are unlikely to provide significant constraints on exclusionary behavior in most cases. Instead, they are more likely to affect the distribution of profits between the purchaser and seller

199. This basic point can be illustrated by altering somewhat the previous numerical example set out above. See *supra* note 189. Consider a manufacturer with low marginal costs that sold the right to exclude Klor's, thereby foregoing revenue of \$200 per unit. Suppose that supplier's next-best alternative would entail continuing to produce the units, but exporting those excess appliances for sale in Samoa at a price of \$190, less additional transportation costs of \$5. Thus, ignoring any counteroffer by Klor's, the suppliers would be willing to sell exclusionary rights for \$15, the sum of the revenue loss of \$10 (i.e., \$200-\$190) plus the additional transportation costs of \$5.

The potential for a counteroffer by Klor's complicates the analysis. If Klor's next-best alternative sources of appliances would cost it \$50 more (i.e., \$250), its maximum counteroffer would equal \$50. In this case, Broadway-Hale could succeed in outbidding Klor's only if it offered the suppliers more than \$65—the sum of Klor's maximum bid of \$50 plus the revenue loss of \$10 plus the transportation costs of \$5. However, if Broadway-Hale gains sufficient power over price from this exclusion, its strategy still will be profitable. See *infra* note 204.

200. See Coase, *supra* note 188.

201. For example, see *supra* Sections IV.A.2.b. (Real Foreclosure), IV.B.3.b. (Frankenstein Monster).

of the exclusionary rights. At most, holdout problems will limit somewhat the number of exclusionary rights sold, preventing the purchaser from achieving a complete monopoly. Nevertheless, they are quite unlikely to cause the strategy to fail altogether.

Suppliers may indeed realize that the purchaser is buying exclusionary rights and therefore may anticipate that, if the purchaser succeeds, unrestrained suppliers subsequently will be able to charge the rivals a higher price for their inputs.²⁰² A sophisticated supplier will take into account the likelihood of this higher price in calculating its opportunity cost of selling an exclusionary right to the purchaser.²⁰³ This action may raise the cost of the rights to the purchaser and limit the number it wishes to buy. However, it will not eliminate the purchaser's demand for rights altogether. The power over price gained by the purchaser creates inherent, mutual gains to the purchaser and the supplier from the sale of the right to the purchaser, gains large enough to offset the higher price.²⁰⁴ As stated earlier, this benefit to the purchaser increases with the size of its market share.²⁰⁵

202. This analysis does not apply to overbuying an input, only to explicit exclusionary rights. In Overbuying, all suppliers charge the higher, market-clearing input price, even to the purchaser of the exclusionary rights.

203. For example, altering somewhat the conditions set forth in note 199, *supra*, suppose one supplier anticipates that the purchaser's exclusionary rights strategy will surely succeed whether or not the supplier agrees to sell its rights. Suppose the supplier forecasts that the post-exclusion input price for remaining units of the input will rise above the current input price of \$200 to \$225. The supplier would make the following calculation in deciding whether to sell exclusionary rights. Assuming that a restrained supplier could still export to Samoa at a price of \$190 less \$5 additional transportation costs, and ignoring the possibility of a counteroffer by Klor's, the excluded firm, the supplier would require a bid from the purchaser of at least \$40 in excess of the rivals' offer. Thus, a \$40 increment is necessary. This \$40 increment exceeds the \$15 increment in the previous example in note 199, *supra*, of no counteroffers because the supplier calculates its potential revenue loss from exclusion on the basis of the anticipated post-restraint price of \$225, instead of the current pre-restraint price of \$200. This \$40 does not include a counteroffer by Klor's because, in this case, Klor's has no incentive to make a counteroffer high enough to be acceptable to the suppliers. The suppliers would require payment of \$25 per unit in exchange for the right to continue to buy at \$200, for a total cost to Klor's of \$225, the anticipated post-restraint price.

204. Building on the example set out in note 199, *supra*, when counteroffers are permitted, suppose that Broadway-Hale would have to pay each manufacturer \$65 per unit of reduction in sales to Klor's. Assuming that before the exclusion Klor's bought 10 units from the manufacturers, Broadway-Hale's cost for totally excluding Klor's would be \$650 (i.e., \$65 per unit times 10 units). This cost of excluding Klor's would be offset by the higher prices Broadway-Hale could obtain for its output. For example, suppose that before the exclusion Broadway-Hale's sales were 90 units, for a pre-exclusion market share of 90%. Assume also that Broadway-Hale raises its post-exclusion price by \$45, an amount less than the increase in Klor's unit costs (its \$50 cost of alternative inputs), and that this price increase allows Broadway-Hale to hold its sales constant at its pre-exclusion level of 90 units. This assumption is equivalent to assuming that the market demand elasticity is approximately 0.5. In this case, Broadway-Hale's revenue will rise by \$4050 (i.e., 90 units times \$45 per unit), for an increase in net profit equal to \$3400 (i.e., \$4050-\$650).

205. For example, in the hypothetical described in note 204, *supra*, if Broadway-Hale's output were higher, its gains from exclusion would be higher. See also *infra* note 208. This analysis is very similar, if not identical, to the previous analysis of counterstrategies. In the analyses of Lewis, *supra* note 198, and R. MACKAY, *supra* note 172, suppliers' anticipations of the higher post-exclusion input

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The second holdout problem, the supplier's incentive to capture more of those monopoly gains for itself, is more a matter of the distribution of monopoly profits among the parties than an issue of whether the exchange will take place.²⁰⁶ Moreover, in the case of an input market with a large number of suppliers, competition among suppliers to sell exclusionary rights will prevent, or at least limit, this second form of holdout.²⁰⁷

Certain factors increase the likelihood that the potential purchaser can offer an amount sufficient to overcome potential holdout problems and induce the suppliers to grant exclusionary rights. First, as noted above, the larger the purchaser's market share, the greater its reward for achieving power over price, hence the greater its willingness to pay to achieve anticompetitive exclusion.²⁰⁸ Second, the overall demand for the suppliers'

price effectively make the supply of exclusionary rights upward-sloping. That is, the more rights purchased, the higher the price the purchaser must pay. Assuming that the purchaser cannot price discriminate among suppliers, the purchaser has an incentive to act like a monopsonist, taking into account the higher price that must be paid for all rights if additional rights are bought. This higher price for rights, however, is offset by the additional gains to the purchaser arising from the higher price it will earn on its sales as a result of its enhanced market power. Because the purchase of more rights translates into a larger market share for the purchaser and a higher price received on more sales, it can afford to pay more for the rights. Indeed, as demonstrated by Mackay, the demand for rights can have an upward-sloping portion. R. MACKAY, *supra* note 172. The interaction of this supply and demand entails an equilibrium in which a purchaser with a significant initial market share gains additional, but incomplete, monopoly power. Only if the purchaser had an initial market share of zero (a "pure promoter," in Mackay's parlance) will the strategy fail altogether; otherwise, it will succeed. However, contrary to the "merger to monopoly" claims of Bork and others, Mackay emphasizes that the purchaser will be unable to achieve a complete monopoly (i.e., a market share of 100%).

206. Of course, such bargaining problems may cause a certain percentage of negotiations to fail. However, in the case of failed exclusionary rights negotiations, the purchaser often can shift to other potential sellers. Moreover, the fact that a small fraction of deals will fall through does not vitiate the proposition that a large fraction of deals to exclude rivals can succeed.

207. For example, the purchaser can avoid this type of holdout problem by committing to purchase any and all rights offered at some price or by committing to purchase some fixed number of rights from the suppliers who bid the lowest prices. In either case, competition among suppliers will prevent individual suppliers from holding out for a better deal. Of course, under this strategy, holdouts also may arise from suppliers' expectations that the purchaser will act opportunistically by violating its commitment to limit its purchases of exclusionary rights, and purchase additional rights subsequently at a higher price. Such a belief might entice some suppliers to wait for the higher price. As Mackay points out, in this event the purchaser can assuage the fears of such suppliers by offering a "most-favored-nations" provision in the agreement that would assure suppliers that higher price if more rights are purchased. See R. MACKAY, *supra* note 172, at 19–21. More generally, any credible commitment to purchase in a non-discriminatory fashion (e.g., employing a standard form contract with a most-favored-customers clause) can prevent individual sellers from holding out for a subsequent discriminatory high price. See Salop, *supra* note 51.

Warren Schwartz has suggested to us still another type of holdout problem—that suppliers may agree to exclude rivals, but then continue to sell to rivals secretly. That is, exclusionary rights agreements have enforcement problems analogous to the problem of cartel enforcement. We agree that such problems may exist in some cases. They are discussed in the analysis of Cartel Ringmaster. See *supra* Section VI.A.3. However, unlike covert, illegal cartels, exclusionary rights agreements will be enforced at low cost by contracts courts if they are not prohibited under the antitrust laws. Thus, the problems of enforcement should be less serious than in the standard cartel analysis. See Posner, *supra* note 103.

208. The importance of market share can be illustrated by altering the assumed sales of Broadway-Hale in the numerical example set out in note 204, *supra*. If Broadway-Hale's pre-exclusion

product may be so broad that losing only those few buyers who compete with the purchaser will have negligible effects on the suppliers' revenues. That is, the suppliers may be able to sell the extra units with little or no price reduction to other buyers who do not compete with the exclusionary rights purchaser.²⁰⁹

To illustrate, these factors may have worked together to make feasible Alcoa's purchases of exclusionary rights from electric power suppliers.²¹⁰ During the early twentieth century, Alcoa was the only manufacturer of aluminum in the United States. It therefore stood to realize large gains from maintaining its power over price. If denying its potential competitors access to most, but not all, strategically located sources of electric power would have so raised these rivals' costs that it could maintain significant market power, Alcoa could have succeeded in excluding rivals and shared the gains from maintaining this market power with the utilities from which it bought exclusionary rights. The utilities may have sacrificed few, if any, electricity sales and thereby foregone few profits by their agreement because they could replace their lost sales by selling that electricity to other users outside the aluminum industry.

It thus appears that, in general, if a firm can gain power to raise price by raising its rivals' cost through exclusionary rights agreements, as we have argued will sometimes be the case, there is no reason to assume that counter-bidding by rivals or the inability to compensate suppliers will normally prevent these agreements from being executed.²¹¹ We do not claim that rivals will never outbid purchasers for exclusionary rights or that suppliers will always find it profitable to grant them. For example, if

sales were 10 units (i.e., a market share of 50%) and its post-exclusion sales remain constant at 10 units, then the price increase of \$45 only raises its revenue by \$450 (i.e., 10 units times \$45 per unit). (This price increase and quantity decrease assumes a market elasticity of 2.2, a higher elasticity than in the previous example.) Taking into account a \$650 cost to purchase the exclusionary rights, the purchaser's net profit falls by \$200 (i.e., \$400-\$650). Thus, in this second example, exclusion of Klor's would not be profitable. As these examples show, the profitability of exclusion depends on market share, the cost of the rights, the elasticity of demand and other variables. By changing the relative sizes of these variables, numerous examples of profitable complete or incomplete exclusion at far lower market shares or of unprofitable exclusion even at market shares approaching 100% can be constructed. The point of these examples is not to specify numerical thresholds for enforcement purposes, but to show how the variables interact.

209. Of course, this targeted reduction in its market is only possible when explicit exclusionary rights are sold, the markets can be separated, and arbitrage can be prevented.

210. See the previous discussion of *Alcoa*, *supra* Section IV.A.2.b.

211. Our analysis thus far assumes that the only cost borne by the purchaser of exclusionary rights is the price paid to suppliers for those rights. In some cases, however, especially those involving exclusionary use of governmental processes, exclusionary strategies also may raise the production costs of the purchaser, as well as the price paid for the rights. Profitability is more likely the greater the increase in the production costs of rivals relative to the increase in the purchaser's production costs. See S. SALOP & D. SCHEFFMAN, *supra* note 73; Salop, Scheffman & Schwartz, *supra* note 73. In the case of Real Foreclosure, the purchaser's relative cost increase will be smaller if its relative use of the input is less than its rivals, if it is vertically integrated into production of the input to a greater degree than its rivals, or if its purchase price is protected by bargaining power or a long term contract.

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there were 10,000 utilities, each of which could fully satisfy the demand of a large aluminum producer, Alcoa would have had little success with an exclusionary rights strategy. Further, single-firm monopoly suppliers will usually, but not always, be unwilling to convey exclusionary rights that give their purchasers power to raise price. That observation, however, does not undercut the central argument that suppliers who are not monopolists can benefit from such anticompetitive restraints or imply that a monopoly supplier always should be immunized from challenge for exclusionary conduct. Put another way, although exclusion is not always successful, one cannot assume that a competitive market for exclusionary rights is likely to lead to competitive product markets.²¹² These conclusions alone should be sufficient to rebut assertions that antitrust law should be indifferent to claims of anticompetitive exclusion by vertical agreement or merger.

C. Efficiency Justifications

As explained above, exclusionary rights agreements may lower the costs of either purchasers or suppliers.²¹³ Indeed, costs savings are likely to be the only competitive effects of vertical restraints adopted and maintained in unconcentrated markets characterized by easy entry. Firms have incentives to seek power over price, but they also have incentives to integrate vertically when transaction costs exceed the benefits of conducting business through organized markets;²¹⁴ a priori, one cannot presume which of these incentives will explain a randomly selected exclusionary rights agreement. How, then, should antitrust policy address these dual incentives, these mirror-image potential results?

One possible response would be to treat all exclusionary rights agreements as lawful because (a) at least some are motivated by, and result only in, efficiencies, and (b) standards for assessing the probability of an-

212. This point is emphasized in the rent-seeking literature. See Posner, *supra* note 73; Tullock, *supra* note 73. An analogy to merger analysis might clarify the point. In markets unfettered by antitrust constraints on horizontal mergers, by merging a firm often could, in effect, buy from enough of its rivals the right to exclude them. This strategy would be profitable because the firm could share with its rivals the gains from the resulting monopoly. Similarly, a firm could acquire market power by purchasing from its rivals' suppliers the right to exclude its rivals. In neither case would the result be tolerable simply because it arose from open market deals. In short, one cannot assume that competition for the right to be the monopolist usually yields the efficient market outcome. Only if firms bid for the monopoly, not by offering a high price for the right to monopolize, but by bidding to supply high quality goods at low prices could efficiency be achieved. See Demsetz, *Why Regulate Utilities?*, 11 J.L. & ECON. 55 (1968); S. BORENSTEIN, ON THE EFFICIENCY OF COMPETITIVE MARKETS FOR OPERATING LICENSES (Mich. Inst. Pub. Pol'y Stud. Discussion Paper No. 226, Sept. 1985); D. SAPINGTON & J. STIGLITZ, INFORMATION AND REGULATION (Princeton Univ. Discussion Paper, 1986).

213. See *supra* text accompanying notes 66-69.

214. See O. WILLIAMSON, *supra* note 152; R. BORK, *supra* note 1, at 135-37.

anticompetitive effects stemming from exclusion are too complicated or unwieldy to produce trustworthy estimates. Identical arguments, however, could be made to abolish all antitrust review of mergers, joint ventures, and claims of price fixing. Such an uncritical acceptance of potentially anticompetitive conduct would be no more supportable than a rule of "inhospitality" that prohibited all potentially exclusionary restraints.²¹⁵ Unless we are to abandon all hope of rational fact-finding and discriminating analysis, both of these extreme approaches are simply too draconian. Two other approaches deserve fuller exploration.

1. *Treating Efficiencies as Irrelevant*

The dominant view of antitrust law always has been that where anticompetitive effects are probable, efficiencies are no defense.²¹⁶ Although the so-called "rule of reason" analysis takes account of efficiency claims, it does so principally by subjecting assertions of anticompetitive effects to close scrutiny when plausible efficiency arguments are offered.²¹⁷ We know of no case in which the Supreme Court concluded that the practice in question probably conferred on a firm power to raise price, but nevertheless upheld the practice on the ground that the harm to consumers was outweighed by cost savings to the firm adopting the practice.²¹⁸

Similar treatment of exclusion claims certainly cannot be described as irrational. Suppose one knows with reasonable certainty in a particular case that an exclusionary rights agreement gave its purchaser significant power over price by raising its rivals' costs. If the agreement also enabled

215. See Easterbrook, *supra* note 49, at 4-9; see also R. BORK, *supra* note 1, at 136-44.

216. See, e.g., *FTC v. Procter & Gamble Co.*, 386 U.S. 568, 580 (1967) ("Possible economies cannot be used as a defense to illegality."); cf. Williamson, *supra* note 126.

217. See, e.g., *Northwest Wholesale Stationers, Inc. v. Pacific Stationery & Printing Co.*, 105 S. Ct. 2613, 2620-21 (1985) (refusing to apply per se rule without considerable inquiry into market conditions); *Continental T.V., Inc. v. GTE Sylvania Inc.*, 433 U.S. 36, 51-58 (1977) (vertical restraints to be governed by rule of reason rather than per se rule because of possible procompetitive effects). Efficiency considerations can also affect choice of remedies. In two important joint venture cases, the Supreme Court chose remedies that regulated, rather than disbanded, combinations that achieved market power, probably because of the efficiencies these combinations generated. See *Associated Press v. United States*, 326 U.S. 1, 21-22 (1945); *United States v. Terminal R.R. Ass'n*, 224 U.S. 383, 409-13 (1912).

218. A case that might have raised this issue was *Broadcast Music, Inc. v. Columbia Broadcasting Sys.*, 441 U.S. 1 (1979). The Court in *Broadcast Music* held the per se rule against price fixing among competitors inapplicable to blanket licensing agreements negotiated with television networks by holders of copyrights in musical compositions. The Court said the agreement among competing copyright holders escaped condemnation because large efficiencies were created (or, as the Court preferred to phrase it, because the blanket license was "a different product" with "unique characteristics"). *Id.* at 21-22. A rule of reason analysis might have required the Court to decide whether the cost-savings features of the blanket license outweighed its price-enhancing features. This issue was avoided, however, when, on remand, the Second Circuit concluded that the blanket license had no anticompetitive price enhancing effect whatsoever. *Broadcast Music, Inc. v. American Soc'y of Composers, Authors & Publishers*, 620 F.2d 930, 935-37 (2d Cir. 1980), *cert. denied*, 450 U.S. 970 (1981).

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the purchaser to reduce its costs, its concomitant acquisition of monopoly power means that consumers cannot expect to realize much, if any, of the benefits of that cost reduction; instead, only the firm's stockholders gain. In any event, efficiencies often can be achieved without exclusionary rights.

2. *Putting Efficiencies in the Balance*

The view that efficiencies are irrelevant, although not irrational, is not necessarily compelling. At least in some extreme cases, the purchaser may achieve such a substantial cost reduction that, even when it subsequently exercises its market power, the purchaser likely would set a price lower than that in effect before the agreement.²¹⁹ If this occurs, and the cost reduction could not have been achieved by any other means, consumer welfare is not harmed by the practice. Alternatively, if power over price is not certain, and in its absence the competitive price would fall, then substantial cost savings might lower the expected value of the price consumers would pay.

Further, as a normative matter, one may not wish to define the consumer welfare that antitrust law protects solely as the prices consumers pay. An increase in price, caused by the exercise of market power, harms consumers in two, arguably disparate, ways. First, there is the unambiguously harmful "deadweight" loss of sales occasioned by the shift from the lower, more competitive price. Second, and more controversial, is the "monopoly transfer," the price premium paid by those still willing to buy.

That monopoly transfer increase (or part of it) may be competed away by the erection of strategic entry barriers or by the entry of inefficient competitors. In this case, it represents an increase in deadweight loss. Alternatively, it may represent only a (possibly temporary) transfer of wealth from some people to others.²²⁰ By treating stockholders as "honorary consumers," a consumer welfare standard could be indifferent to the wealth transfer. That view could justify a real efficiency gain to the purchasing firm or the suppliers that could lower society's costs of producing goods.²²¹ Moreover, the monopoly rent transfer may induce innovation and further cost savings by competitors.

On these premises, some might rationally conclude that efficiencies

219. Fisher, Lande & Vandaele, *Afterword: Could a Merger Lead to Both a Monopoly and a Lower Price?*, 71 CALIF. L. REV. 1697 (1983).

220. See Lande, *Wealth Transfers as the Original and Primary Concern of Antitrust: The Efficiency Interpretation Challenged*, 34 HASTINGS L.J. 65 (1982); Posner, *The Social Costs of Monopoly and Regulation*, 83 J. POL. ECON. 807 (1975).

221. However, production inefficiencies may also be inflicted on the purchaser's rivals. See *supra* Section IV.B.3.

should be part of the calculus. Millions of dollars in cost savings might be more important than fulfilling the desires of a few consumers willing to buy at the pre-restraint price but not at the later one.

If efficiencies are put into the balance, the weight of the evidence in favor of the cost savings must be evaluated. Empirical evidence tending to prove actual cost savings should be preferred over evidence establishing only the logical possibility that such efficiencies will be realized. The empirical basis might consist of before-the-fact data that support the inference that, in the particular situation, the practice probably will generate efficiency benefits; or it might be after-the-fact evidence that the exclusionary rights agreement actually had the claimed effect.²²² Either type of empirical support would improve the reliability of the particular claim.

Balancing also raises the issue of the proper benchmark for evaluating cost-savings claims. What usually causes the anticompetitive effect in exclusionary rights agreements is a single contractual provision giving the supplier the duty to exclude rivals of the purchaser, not the entire purchase agreement for the inputs. Therefore, sometimes the cost savings can be achieved even as the anticompetitive effects are excised; the court can invalidate only the exclusionary provisions, not the entire agreement. In these cases, there would be no need for a court to balance cost savings against price increases. It follows that efficiency claims should be ignored unless the exclusionary right itself, not just the input purchase agreement in which the exclusionary right is embedded, can be shown to reduce costs, both absolutely and relative to the price increases suffered by consumers. Sometimes, however, the agreement and the exclusionary term cannot be separated. For example, Real Foreclosure in the form of Overbuying is a case in which the larger agreement is impossible to separate from the exclusionary right. It is the actual transfer of the input, not some ancillary part of the transfer, that has the exclusionary impact. For this reason, Overbuying is one of the hardest practices to evaluate. The inseparability of purchase agreement and exclusionary right also provides a strong rationale for courts to be most permissive toward this practice.

3. *The Policy Dilemma*

At the heart of this dilemma is the question of how to describe the consumer welfare that antitrust law seeks to protect. If the Sherman Act gives consumers and firms an entitlement to enter transactions that they would have made but for restraints of trade that confer monopoly power on certain other firms, then an exclusionary agreement that confers mo-

222. For examples of evidence that might be introduced, see Salop & Simons, *A Practical Guide to Merger Analysis*, 29 ANTITRUST BULL. 663 (1984).

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monopoly power on its purchaser by raising its rivals' costs should not be saved by efficiency claims unless these savings are so substantial that price will fall in spite of the increase in monopoly power.²²³ On the other hand, if the Sherman Act places little value on the division of wealth between consumers and stockholders and instead seeks to promote a net value of efficient transactions and low production costs, and if one doubts the ability of firms to erect entry barriers or their propensity to engage in rent-seeking behavior, then the likelihood and magnitude of any cost reductions should be part of the calculus employed in judging exclusion claims.²²⁴

This Article is not the place to attempt to resolve that dilemma, but we can describe its contours. We would take account of very large efficiencies where the process costs of discovering and credibly measuring them are not prohibitive. Pending further refinement of methods for estimating efficiencies, the weight of precedent rather clearly lies with those who would refuse to recognize efficiencies as a justification, while, if necessary, erring in the direction of leniency in devising methods or standards for estimating the likelihood of anticompetitive effects.²²⁵ Thus, the burden currently rests on proponents of change to describe how the magnitude of efficiencies should be measured and where the balance(s) should be struck. Both of these tasks are enormously complex and difficult. To our knowledge, no one has undertaken them. Until they are accomplished, the chances of persuading decisionmakers openly to alter the status quo seem dim.

In constructing their argument, those who would employ efficiencies as an offsetting defense in exclusionary rights cases should be prepared to accomplish the following. First, they should develop standards for estimating the magnitude of those efficiencies.²²⁶ Second, they should develop methods to assess whether efficiencies could be obtained by less restrictive or less anticompetitive techniques. Third, they should distinguish in practice between pecuniary economies and real efficiencies, and count only the latter.²²⁷ Fourth, they should establish standards for distinguishing among effective exclusion resulting in price increases that (a) only transfer wealth from consumers to stockholders, (b) generate activities by purchasers, such as rent-seeking and strategic entry deterrence, that siphon wealth from

223. See Fisher & Lande, *Efficiency Considerations in Merger Enforcement*, 71 CALIF. L. REV. 1580, 1631-32 (1983).

224. This would imply that any production inefficiencies inflicted on rivals should also be taken into account. See *supra* Section IV.B.3.

225. For example, this is precisely what the Court did in *Continental T.V., Inc. v. GTE Sylvania Inc.*, 433 U.S. 36 (1977).

226. For example, measure the dollar benefits of reduction in free rider effects.

227. If antitrust law should be indifferent to the distribution of wealth between producers and consumers, then it should be indifferent to the wealth distribution between producers and input suppliers as well.

consumers to non-productive entities, and (c) provide incentives for wealth-increasing innovation. Only after explaining how these kinds of calculations can be made or why they should be ignored can one assert, except in extreme cases, that a cost savings necessarily should be balanced against quantitative proof of likely anticompetitive effects.

Two kinds of exclusionary rights agreements nevertheless are easy to address. At one extreme, where all that is involved is the sale of a good, service, or other commodity, all of which is consumed efficiently by the purchaser (i.e., the net foreclosure rate is zero), with no additional exclusivity provisions, the arrangement might best be treated as lawful *per se*. Where the purchaser obtains neither a promise by the supplier not to deal with others nor more of the good than the purchaser presently can consume profitably, the odds are quite high that the arrangement will have no anticompetitive effects.²²⁸

At the opposite pole, where the purchaser obtains only a naked exclusionary right and the purchaser does not itself acquire inputs from the supplier, that arrangement should be presumptively suspect. Claims of efficiency in such cases are almost certain to be implausible, and there are no efficiencies stemming from input purchases to protect. Consequently, purchasers could fairly be assigned the burden of proving the absence of a reasonable likelihood of anticompetitive effect.

Remaining are cases in which some exchange of goods or services occurs, but an express exclusionary right also is conveyed. Partly because of the weight of precedent and partly because the exclusionary right itself often should not confer distinctive cost-savings, we think it would not be unreasonable to leave defendants with the burden of proving measurable, specific, countervailing efficiency justifications in specific exclusionary rights cases in which plaintiffs have proved actual or probable competitive injury.

VIII. ALTERNATIVE COMPREHENSIVE STANDARDS

As noted at the outset, courts have not treated exclusion claims as a unitary antitrust issue. Rather, they have classified exclusion cases according to the type of commercial arrangement challenged, promulgating different standards for different arrangements. Naturally, this has led most

228. Similarly, we think a strong case can be made for placing a large burden on plaintiffs in Overbuying cases. They should be required to show that the Overbuying was significantly in excess of what the defendant reasonably needed or, perhaps, that the input purchases were so large that significantly inefficient resource use would occur. This latter approach would require proof that, as a result of the inefficient resource use from Overbuying, the purchasing firm's marginal cost is, in effect, driven up to a level above the price it receives for its output. This burden would generally be very difficult for the plaintiff to carry; it is equivalent to the Areeda-Turner test for predatory pricing, as applied to input purchases. See S. SALOP & D. SCHEFFMAN, *supra* note 73.

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commentators to take similarly narrow views of the issues. We are not the first, however, to suggest a more unified antitrust exclusion theory. The most complete approaches, other than ours, appear to be (a) the "output" test advocated by both Easterbrook and Posner, (b) the guidelines for vertical mergers issued in June 1984 by the Department of Justice (DOJ), and (c) the DOJ's Vertical Restraints Guidelines (VRGs) issued on January 23, 1985.

A. The "Output" Test

Then Professors, now Judges, Richard Posner and Frank Easterbrook have separately proposed that the legality of vertical restraints be evaluated on the basis of their effect on output.²²⁹ The restraints would be illegal only if output declined. The test follows from the argument that consumers are injured if industry output falls and prices rise, and they are benefitted if industry output rises and prices fall. There are three main problems with this test.

First, applying the output test to exclusionary restraints easily and frequently leads to its misuse. The output test should involve changes in total industry output and was designed to evaluate only industry-wide restraints that allegedly facilitated collusion. When the test has been applied to restraints adopted by only one or a few firms, even its advocates have erroneously evaluated only the output of the firm adopting the restraint, not the entire market. For example, as Easterbrook puts it:

The economists therefore might look at output changes in the short run. Does the firm using the challenged practice increase sales or reduce them? An increase suggests procompetitive effects, a lower effective price per unit of quality delivered. Does the firm increase its market share or lose it? Again an increase suggests procompetitive effects.²³⁰

He is clearly incorrect. Under this test, a firm that demolished all its rivals' plants would escape liability because its market share increased to 100 percent.²³¹

229. Easterbrook, *Vertical Arrangements and the Rule of Reason*, 53 ANTITRUST L.J. 135 (1984) [hereinafter Easterbrook, *Vertical Arrangements*]; Easterbrook, *supra* note 49; Posner, *The Next Step in the Antitrust Treatment of Restricted Distribution: Per Se Legality*, 48 U. CHI. L. REV. 6 (1981).

230. Easterbrook, *Vertical Arrangements*, *supra* note 229, at 154.

231. It appears that Easterbrook has confused the expected effects of horizontal price collusion (in which the colluders' joint output would be expected to fall) with those of exclusionary practices that raise the costs of rivals (in which the perpetrator's output could rise). This error is so obvious that it probably should be forgiven as the fault of careless drafting. However, the error succeeded in fooling the Assistant Attorney General for Antitrust. In explaining why the purchase of exclusive (and allegedly exclusionary) rights to beer sports advertising by Miller and Anheuser-Busch could not have

Second, even if aggregate *industry* output were used, the test generally still would be inconclusive. When products are differentiated, industry output is not a good proxy for aggregate consumer welfare. Welfare can fall when output rises and vice versa,²³² because the restraint can give a small benefit to a limited number of consumers at the margin while decreasing the benefits received by a large number of consumers who nonetheless find that the restrained product still is the best buy in the marketplace.²³³

Third, output is difficult to measure. If the market is growing, analysts would have to measure the output increase "but for" the restraint. Similar problems arise if costs change. In addition, for differentiated products, the proper measure of output is not clear. If "revenues" are used, price increases would show up as increases in output. Measurements of physical quantities may not capture quality differences correctly.

B. *The Justice Department's Vertical Merger Guidelines*

The DOJ's guidelines for vertical mergers²³⁴ are broadly consistent with our approach. However, only a restricted set of anticompetitive theories is covered by the guidelines, and the thresholds are set at apparently arbitrary levels.

The guidelines ask whether the vertical merger is likely to raise entry barriers into one of the markets (the "primary" market) and thereby enhance the likelihood of tacit or express collusion in that market by requiring potential entrants simultaneously to enter the other ("secondary") market.²³⁵ In our terminology, this concern corresponds to the possibility that a vertical merger might raise rivals' costs of obtaining needed inputs

been anticompetitive, Assistant Attorney General Ginsburg focused on the resulting increase in the market shares of Miller and Anheuser-Busch. He stated, "[i]f the practice restrained competition in the market, one would have seen the two firms' market shares falling rather than rising." Letter from Douglas H. Ginsburg to Honorable Howard M. Metzenbaum (Nov. 1, 1985) (citing Easterbrook, *supra* note 49). The authors were consultants to a firm that had sought to have the Antitrust Division challenge these practices.

232. See Comanor, *Vertical Price-Fixing, Vertical Market Restrictions, and the New Antitrust Policy*, 98 HARV. L. REV. 999-1000 (1985); Katz, *Non-Uniform Pricing, Output and Welfare Under Monopoly*, 50 REV. ECON. STUD. 37 (1983); Scherer, *The Economics of Vertical Restraints*, 52 ANTITRUST L.J. 687, 706 (1983); Spence, *Monopoly, Quality and Regulation*, 6 BELL J. ECON. 417 (1975). Easterbrook responds to these arguments by stating, without any claimed economic basis, that while the test may be misleading under certain conditions, the required conditions are "rare." Easterbrook, *Vertical Arrangements*, *supra* note 229, at 154 n.34.

233. This would be implausible in a highly competitive market where there are very close substitutes for the product of the firm adopting the restraint. But a focus on these competitive conditions involves moving to a test other than the output test, a change in focus that is consistent with our analysis.

234. 1984 DOJ Merger Guidelines, *supra* note 144, § 4.2.

235. *Id.* § 4.21.

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(DOJ's secondary market), leading to power over price in the output market (DOJ's primary market).

According to the guidelines, barriers can only increase if, after the merger, three conditions are satisfied. First, conditions must be such that to enter the output market a firm also must enter simultaneously the input market.²³⁶ In determining whether this two-tier entry is necessary, the guidelines consider whether the integrated firms might engage in "supply squeezes" against unintegrated rivals.²³⁷ Second, this simultaneous two-tier entry must be more expensive.²³⁸ In our terminology, the supply squeeze corresponds to the exclusionary act, and these two conditions would imply that the costs of (potential) rivals were raised. Third, the structure and characteristics of the output market must be conducive to non-competitive performance, so that the increase in entry barriers is likely to affect its performance.²³⁹ This inquiry corresponds to the question of whether the merger will enhance the firm's power to raise price in the output market. The Justice Department's basic approach, as well as the variables it employs as objective measures, is fundamentally consistent with our analysis, but it differs from our proposals in two major ways.

First, the DOJ guidelines restrict their attention to vertical mergers that could create barriers to entry. They do not encompass the case in which established rivals' costs are raised significantly, although barriers to entry do not increase. This oversight is insignificant in the case where low barriers to entry imply that rivals could avoid the cost increase by integration into production of the input themselves. However, it is significant in those cases where entry barriers are already high so that rivals are dependent on established firms for their supplies of the input.

Second, the guidelines adopt an enforcement threshold that seems arbitrary. In particular, the Department concludes that supply squeezes are not sufficiently likely to necessitate two-tier entry as long as, after the merger, sufficient capacity is available in the input market to serve *two* plants of minimum efficient scale in the output market.²⁴⁰ This threshold is not connected to the HHI levels used elsewhere in the guidelines.²⁴¹ Nor is it justified on other grounds.

236. This may not occur if there is sufficient unintegrated input capacity still available to supply entrants (in our terminology, that is, if the capacity share of unrestrained firms is large). *Id.* § 4.211. In this case, rivals' costs would not rise.

237. *Id.* § 4.211 n.31. However, they do not discuss how this evaluation would be made.

238. *Id.* § 4.212.

239. *Id.* § 4.213.

240. *Id.* § 4.211.

241. For example, the Department uses an HHI equal to 1800 as a second threshold in the input market. *Id.* § 4.213. The guidelines concerning potential entry ask, *inter alia*, whether at least three firms are on the verge of entering. *Id.* § 4.133; *see also* MERGERS IN THE NEW ANTITRUST ERA, *supra* note 144, at 54 n.35, 55 n.37.

C. *The Justice Department's Vertical Restraints Guidelines*²⁴²

In many important respects, our approach dovetails with that of the VRGs. Both systems of analysis flow from dissatisfaction with the dominant doctrinal themes of prevailing case law. Both would explicitly focus attention on whether competition (as well as competitors) is harmed and would define those terms in light of microeconomic price theory. As a matter of substantive antitrust policy, both systems would require that a party asserting an exclusion claim prove, at a minimum, that entry barriers in well defined input markets permit a vertically integrated firm to raise its rivals' costs materially. Both ask whether assertedly vertical exclusionary restraints have horizontal effects. As a matter of antitrust enforcement policy, both systems borrow from the merger guidelines in applying objective measures (largely reflecting market structure) to estimate the likelihood of certain untoward economic effects (principally, output restrictions and price increases). Both systems of analysis recognize that exclusionary rights contracts often may generate efficiencies, but put the burden of proving specific efficiency justifications on challenged firms.

Notwithstanding these large and important areas of congruence, our system of analyzing exclusionary rights claims differs from that of the VRGs in several significant ways. The VRGs are concerned with collusion as well as exclusion; they also include "territorial and customer restraints" that entail no exclusion of rivals, but are troublesome only to the extent that they facilitate collusion directly among firms subject to the restraint by altering the structure of their markets.²⁴³

The DOJ analysis centers explicitly on whether the exclusionary rights agreement subjects rivals to an unavoidable cost increase²⁴⁴ and implicitly

242. U.S. Dept. of Justice, Vertical Distributions Restraints Guidelines, 50 Fed. Reg. 6263 (1985) [hereinafter VRGs]. We acted as consultants on the VRGs and, in that capacity, shared an early draft of this article with the Department.

243. *Id.* § 1. We take an analogous approach in the case of Cartel Ringmaster. In the case of allegations of collusion, as we discussed earlier with regard to Cartel Ringmaster, it may be unnecessary to prove power over price. See *supra* note 136.

We bring within our analytic framework restraints that the VRGs designate as "Exclusive Dealing Arrangements." VRGs, *supra* note 242, § 1. The VRGs describe these arrangements as "requirements that a buyer deal only with a particular seller or that a seller deal only with a particular buyer or group of buyers." This definition may be read to cover not only the VRGs' limited, specific illustrations of "exclusive distributorships, sole outlet provisions, and requirements contracts," but also such otherwise unmentioned case law phenomena as refusals to deal, boycotts, and denials of essential facilities. *Id.* Exclusive dealing arrangements do not, however, include vertical mergers, which are left to the DOJ's very differently structured Vertical Merger Guidelines (even though, as shown above, they present analytically identical issues). Further, the VRGs present a completely different set of standards for analyzing the legality of tying arrangements, notwithstanding that such arrangements would appear to fit the broad definition of "exclusive dealing arrangements" and can easily be analyzed within the two-step analysis set out above. See *supra* Section IV. Compare VRGs, *supra* note 242, § 5 with DOJ Merger Guidelines, *supra* note 144, § 4.

244. VRGs, *supra* note 242, § 3.22.

on whether the rivals' competitor(s) thereby gain power over price. The VRGs also seek to employ objective measures of the likelihood of these effects with a "market structure screen,"²⁴⁵ a first analytical step designed "to eliminate from further consideration those restraints that, in all likelihood, have no anticompetitive effects."²⁴⁶

To apply the market structure screen, the VRGs employ two new measures, the "Vertical Restraints Index" (VRI) and the "Coverage Ratio" (CR). The VRI is calculated by squaring the market share of each firm subject to the exclusive dealing arrangement and summing the resulting values.²⁴⁷ The CR is the percentage of the market employing the exclusionary arrangement.²⁴⁸ Employing these measures, the VRGs consider an exclusive dealing arrangement to be a candidate for antitrust proscription only if all of the following three conditions are met: (a) "the firm employing the restraint"²⁴⁹ has a market share greater than ten percent; (b) the VRI in one market is at least 1200; and (c) the CR in the other market is at least sixty percent.²⁵⁰ If any one of these conditions is not satisfied, the restraint is to receive no "further consideration" because it will, "in all likelihood, have no anticompetitive effects."²⁵¹

This "market structure screen" is incomplete in at least four respects. First, the test fails to take account of the proportion of the buyer's costs accounted for by the seller's good. This screen does not differentiate between denying paintbrush makers bristles and denying them paper clips. Second, the screen overlooks the possibility that rivals' costs may be raised via price coordination by unrestrained suppliers, what we have dubbed the Frankenstein Monster technique.²⁵² Nor do the VRGs deter a purchaser from buying much more of an input than it needs to satisfy its

245. *Id.* § 4.

246. *Id.* § 4.1. Restraints identified by this screening are not necessarily illegal. Such restraints are merely subjected to another series of tests. *Id.* § 4.2.

247. *Id.* § 4.1 n.25.

248. *Id.* § 4.1 n.26. To illustrate, assume that bristles for paint brushes constitute a relevant product market, that only manufacturers of paint brushes buy these bristles, on a non-exclusive basis, and that the relevant market is nationwide. Further, assume that ten firms manufacture and sell bristles, each accounting for 10% of sales; five unrelated firms manufacture and sell brushes, each accounting for 20% of all brush sales and hence 20% of bristle purchases. If two brush makers then each enter separate exclusive dealing arrangements with two bristle manufacturers, so that four bristle makers are restrained, then the bristle VRI is 400 (i.e., $10^2 + 10^2 + 10^2 + 10^2$); the bristle CR is 40% (i.e., $10 + 10 + 10 + 10$); the brush VRI is 800 (i.e., $20^2 + 20^2$); and the brush CR is 40% (i.e., $20 + 20$).

249. As used in this Article, the phrase "firm employing the restraint" denotes the firm that purchases an exclusionary right.

250. VRGs, *supra* note 242, § 4.1. The DOJ Guidelines state these conditions somewhat differently, but on comparison our description can be seen as equivalent.

251. *Id.*

252. See *supra* Section IV.A.3.b. In the hypothetical example, *supra* note 248, if there are barriers to entry, the exclusive dealing arrangements may enable the six remaining bristle suppliers to collude against the three brush makers who remain outside the exclusive dealing arrangements.

current market share, what we have called the Overbuying method of Real Foreclosure.²⁵³ Finally, agreements that are not deemed harmless by this screen are then subjected to another series of tests that are not set in any rational structure.

These omissions appear to be symptoms of a deeper fault. The VRGs use threshold standards that lack firm theoretical or empirical support. Moreover, they appear divorced from other DOJ antitrust enforcement policies. The merger guidelines, whatever their flaws, rest upon systematic theories linking the HHI to the likelihood of price coordination and on extensive empirical work testing the theories. If we are told that a merger between competitors that raises the HHI in their market from 1700 to 2700 should be suspect, we do not have to agree with that statement to understand what it means and the policy views upon which it rests. By comparison, the VRGs are an ipse dixit. They tell us that an exclusive dealing arrangement warrants careful antitrust analysis only if the purchasing firm accounts for ten percent of sales in its market, and either the purchaser's or the supplier's market exhibits a VRI of 1200 or more while the coverage ratio in the other market is at least sixty percent. Yet the VRGs do not explain why the numbers 10, 1200, and 60—or any others remotely resembling them—should be relevant, or why the CR and VRI are evaluated in only one market instead of both.²⁵⁴ Although the indices employed—purchaser's market share, VRI, and CR—all might have theoretical claims to legitimacy,²⁵⁵ those very theories suggest that the screens erected upon these indices are quite incomplete.²⁵⁶

253. See *supra* Section IV.A.2.b. Employing the hypothetical markets described in note 248, *supra*, suppose instead that one brush maker entered exclusive dealing arrangements with five bristle producers. Because the coverage ratio is under 60% in both markets, the arrangements fall into a VRGs safe harbor. But the net foreclosure rate is 37.5% and, unless bristles represent a very insignificant portion of the costs of making paint brushes, or there are no barriers to expansion or entry, this Overbuying may generate very large cost increases for rival brush manufacturers.

254. For example, in most cases the "leading firm proviso" of the merger guidelines would proscribe any merger of a firm whose market share is 35% with any of its competitors. 1984 DOJ Merger Guidelines, *supra* note 144, § 3.12. Yet, the VRGs permit a firm to purchase exclusionary rights from one firm with 35% of the supply market and another with 24%, despite the apparent threat of unilateral output restraints or collusion. VRGs, *supra* note 242, § 4.1.

255. See *supra* Sections IV.A., VI.A.

256. See *supra* text accompanying notes 252–53. We have tried to show that two preferable alternatives exist to the VRGs. First, one could attempt to describe systematically the necessary elements of a rigorous claim of anticompetitive exclusion and leave courts and enforcement authorities, working within this structured framework, to analyze claims in light of the particular characteristics of the markets at issue. See *supra* Section IV. If that approach leaves judges and agencies too free to introduce irrelevant factors or to reach idiosyncratic results, objective measures of the likelihood of anticompetitive effects can be adopted as threshold tests. These tests would be more firmly rooted in price theory and empirical observation and would have a stronger claim to consistency with overall antitrust policy. See *supra* Section VI.

IX. CONCLUSIONS

A. A Summary Illustration

We have argued, throughout this Article, that courts and antitrust enforcers should adopt a unified approach to claims of anticompetitive exclusion. We have proposed a progressively more detailed approach that focuses on a narrow range of factual issues, and argued that such refinements would enhance predictability and ease of administration. We can illustrate these various conclusions about the proper antitrust response to exclusion claims by considering the classic *Klor's* case.²⁵⁷

Assume plaintiff Klor's complained of a series of agreements between Broadway-Hale and brand name appliance manufacturers from which Broadway-Hale purchased exclusionary rights, i.e., a promise that the manufacturers would not sell to Klor's. To establish an antitrust violation, Klor's should have to prove, as a threshold matter, that the agreements significantly raised its costs.²⁵⁸ Regardless of the mechanism of cost-raising alleged, this involves showing both that the cost of an input increased significantly, and that this input represented such a significant fraction of costs that the net effect of the exclusion on Klor's costs was great.²⁵⁹

Turning to the next level of detail, Klor's would be required to prove that one or more of the four mechanisms firms might employ to raise rivals' costs generated its cost increase. Its costs must have been raised because (a) remaining appliance manufacturers were significantly less efficient or more expensive than those foreclosed ("Bottleneck"); or (b) remaining manufacturers had limited low-cost capacity ("Real Foreclosure"); or (c) Broadway-Hale had induced enough firms to refuse to deal with, or to practice effective substantial price discrimination against, Klor's ("Cartel Ringmaster"); or (d) remaining manufacturers were so concentrated that Klor's would incur significantly greater costs in acquiring appliances ("Frankenstein Monster").²⁶⁰

Even greater specificity can be attained, if desired, by borrowing numbers directly from the Department of Justice's merger guidelines. The four asserted theories of harm can be subjected to a threshold numerical standard, measured by objective factors, to gauge their credibility.²⁶¹ If antitrust policy should be more over-inclusive or under-inclusive in upset-

257. *Klor's, Inc. v. Broadway-Hale Stores*, 359 U.S. 207 (1959); see *supra* text accompanying notes 27-30.

258. Normally, analysis would focus on Klor's marginal costs, especially because appliances are a variable cost. For an explanation of, and some qualifications on, this statement, see *supra* note 129.

259. See *supra* Sections III, V.

260. See *supra* Section IV.A.

261. See *supra* Section VI.A.

ting exclusionary rights contracts than in striking down horizontal mergers, the DOJ's numerical thresholds can be adjusted accordingly.

Even if Klor's satisfied the appropriate test for proving that the exclusionary rights agreements actually or probably materially increased its costs, Klor's should also be required to prove that Broadway-Hale thereby gained power to raise price.²⁶² This means Klor's should be required to prove that its (and possibly other rivals') costs have been raised significantly and either (a) that those firms (actually or potentially) in Broadway-Hale's market whose costs were not increased significantly by the vertical restraint were substantially better able to coordinate prices than were all the firms (including Klor's) prior to the exclusionary agreement(s), or (b) that those remaining (actual or potential) competitors likely would not make up for the shortfall in supply of Klor's and other excluded rivals so that Broadway-Hale and others could raise their prices unilaterally.²⁶³

A relatively simple, objective method for testing such an allegation would be to ask whether the Justice Department merger guidelines would have permitted Broadway-Hale to merge with Klor's (and with any other firms subjected to similar refusals to deal). Another, superior method would consider the concentration and barriers to entry for the market comprising all firms that purchased exclusionary rights and all unexcluded firms. In addition to the wide range of factors specified in the merger guidelines, one could also ask (a) whether Klor's and other excluded rivals accounted for a significant fraction of output in the market; (b) whether barriers to entry (and expansion) into the market are high, including whether barriers are created by the exclusionary right itself; and (c) whether the elasticity of demand for Broadway-Hale's product is low.²⁶⁴

To take account of the possibility that Klor's could have protected itself without resort to antitrust litigation, Klor's would also have to show that Broadway-Hale has a large market share and, if relevant, that Klor's production cost increase was substantially greater than any incurred by Broadway-Hale.²⁶⁵ If Klor's met the applicable standards, Broadway-Hale would have the burden of proving specific countervailing efficiencies.²⁶⁶

Absent a showing that Klor's costs were raised and that Broadway-Hale thereby gained power to increase price, Klor's would not have a

262. See *supra* Sections III, V.

263. See *supra* Section IV.B.

264. See *supra* Section VI.B.

265. See *supra* Sections VII.A., B.

266. See *supra* Section VII.C.

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credible claim that Broadway-Hale's exclusionary rights agreements had any anticompetitive effects. Klor's might be harmed in the sense that it could not purchase every appliance it desired, and some consumers might be "irate" that they need to shop elsewhere, but consumers as an economic entity have lost little. After the exclusionary rights agreements, the presence of Klor's or other dealers restrains Broadway-Hale's ability to raise price just as much as before the agreements.

This approach provides greater protection against plaintiffs' filing ill-founded claims than present "foreclosure" doctrines. Judges could require complainants to state, at the outset, specifically how the exclusionary rights agreement increased rivals' costs and conferred on their competitors the power to raise price, and to explain what objective criteria lend credibility to the claim. Further, judges ought to be able to narrow the issues—and, hence, the scope of pre-trial discovery and the length of trials—by confining the parties to the theories of injury asserted by the party contesting the exclusionary rights agreement. In this fashion, the inquiry is both structured and narrowed.

B. *Looking Ahead*

Our analysis should affect prevailing antitrust law and scholarship in three ways. First, basic competition theory can demonstrate that virtually all antitrust issues spring from one of two fears: (a) that the challenged practice will enable firms engaging in it to collude (or to collude more effectively) with competitors; or (b) that the practice will permit the firm employing it to exclude actual or potential competitors who, if not excluded, could restrain the firm from raising price above the competitive level. Cases stemming from the latter fear and challenging contractual arrangements or mergers between suppliers and purchasers, or tie-in sales, should be analyzed according to the two-step inquiry we have proposed: (a) does the practice significantly raise rivals' costs; and, if so, (b) does it substantially increase the firm's power over price? The Supreme Court's opinions in *Hyde*²⁶⁷ and *Northwest Stationers*²⁶⁸ suggest that the Justices know or sense that antitrust needs a viable, coherent theory for evaluating exclusion claims. We believe our proposal would meet that need and satisfy the conditions implicitly established in *Sylvania*,²⁶⁹ *Aspen Ski*,²⁷⁰ and

267. *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2 (1984); see *supra* text accompanying notes 5-7.

268. *Northwest Wholesale Stationers, Inc. v. Pacific Stationery and Printing Co.*, 105 S. Ct. 2613 (1985); see *supra* notes 8, 10-11 and accompanying text.

269. *Continental T.V., Inc. v. GTE Sylvania Inc.*, 433 U.S. 36, 47-59 (1977).

270. *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 105 S. Ct. 2847 (1985); see *supra* notes 9-11 and accompanying text.

*Zenith*²⁷¹ that the theory be rooted in an economic analysis of the consumer welfare goals of the antitrust statutes.

Second, applications of the two-step inquiry can be refined further. Although we believe our analysis is correct, we know questions remain. Can, and should, the calculation of the magnitude of rivals' cost increases be further refined?²⁷² If antitrust enforcers and judges should adopt a comprehensive set of objective factors to test exclusion claims, what specific adjustments, if any, should be made to account for the probability that efforts to exclude would fail of their own accord because rivals would undermine them or because they would prove unprofitable?²⁷³ Can, and should, efficiency defenses be subjected to objective tests of the likelihood and magnitude of cost savings?²⁷⁴ These are only some of the applied research problems that arise if one accepts this Article's theoretical premises and principal conclusions.

Third, the fundamental economic concept advanced in this Article—that raising rivals' costs sometimes can be an effective means of acquiring power over price—has potential applications outside the context of vertical agreements under Section One of the Sherman Act and Section Three of the Clayton Act, on which we have focused. We identify some of these applications to indicate how the principles developed here may have wider utility. The analysis we advance for multi-firm cases appears equally applicable to cases challenging monopolization by a single firm.²⁷⁵ Indeed, the very concept of monopoly power is perhaps best expressed as the ability to engage in practices that meet our two-step test.²⁷⁶ Refusals to deal—whether implemented by contract or by refusal to contract, whether the product of single-firm or multi-firm behavior—should all be brought uniformly within the umbrella of the two-step analysis of potential for anticompetitive effects, as should cases alleging that defendants obtained market power by misusing government processes.²⁷⁷ The concept also can explain why, in some cases, a firm should have standing to con-

271. *Matsushita Electric Indus. Co. v. Zenith Radio Corp.*, 106 S. Ct. 1348 (1986).

272. See *supra* Sections VI.A.1., 2.

273. See *supra* Sections VII.A., VII.B.

274. See *supra* Section VII.C.

275. In these cases, the methods of raising rivals' costs would be expanded beyond the four theories set out here, but the basic two-step analysis of injury to competitors and injury to competition would be the same.

276. As Sullivan states the classic test: "A firm has monopolized in violation of Section 2 if it has deliberately followed a course of market conduct through which it has obtained or maintained power to control price or exclude competition . . ." L. SULLIVAN, *supra* note 2, at 29. We believe that our two-step test—asking whether a competitor has excluded its rivals by raising their costs and, if so, whether that competitor thereby gained power over price—would structure the inquiry in many single-firm monopoly cases in a fashion that would preserve the central values of the classic test and elucidate its proper meaning.

277. See R. BORK, *supra* note 1, at 347-64.

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test a merger between two of its competitors.²⁷⁸ The proper measure of damages in private antitrust actions brought by competitors also may be affected by the concept we have advanced.²⁷⁹

Today, the knottiest substantive issue confronting antitrust law is the proper response to claims of exclusion. The best way out of our present state of confusion is to follow the basic roadmap described in this Article, testing such claims by analyzing critically whether the challenged practices have given firms power to raise their rivals' costs and thereby conferred on those firms power to raise prices.

278. A firm challenging a merger between two of its competitors is likely to be faced with a double-edged argument. If the merger will harm competition, it will help the challenger; if it will harm the challenger, it will help competition. *See* MERGERS IN THE NEW ANTITRUST ERA, *supra* note 144, at 218–19. Whatever the other flaws in that argument, the challenger sometimes can plausibly explain how the destruction of competition between its competitors also would harm the challenger by giving the merged firm the ability to engage in anticompetitive exclusionary practices or purchase exclusionary rights. *See, e.g.,* Christian Schmidt Brewing Co. v. G. Heileman Brewing Co., 753 F.2d 1354, 1357 (6th Cir.), *cert. dismissed*, 105 S. Ct. 1155 (1985).

279. *See* Salop & White, *Treble Damages Reform: Implications of The Georgetown Project*, 55 ANTITRUST L.J. 73, 88 (1986) and references cited therein.

