EXCLUSIVE DEALING AGREEMENTS AND OTHER EXCLUSIONARY CONDUCT—ARE THERE UNIFYING PRINCIPLES?

A. Douglas Melamed*

Exclusive dealing agreements are agreements in which one party promises to deal exclusively with another and, thus, not to deal with competitors of the other. Such agreements can raise issues under the antitrust laws because, by denying competitors access to the goods or services (inputs) offered by the promisor, they can exclude those competitors from the marketplace or materially handicap their ability to compete.[1] These agreements are, therefore, a form of "exclusionary" conduct in the sense that they can exclude or hinder competitors.

Not all exclusionary conduct violates the antitrust laws. One reason is that exclusionary conduct, including exclusive dealing agreements, often also creates real efficiencies. Determining whether such conduct is lawful under the antitrust laws requires taking account of both the efficiencies and the exclusionary consequences of the conduct.

Some antitrust cases have assessed the lawfulness of exclusive dealing agreements as if they present unique antitrust problems. These cases have suggested the existence of categorical antitrust rules for exclusive dealing agreements, such as a rule that exclusive dealing agreements for a term of one year or less are presumptively lawful[2] or that exclusive dealing agreements will be unlawful only if, among other things, they foreclose a certain percentage of some relevant input market.[3]

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[1] Exclusive dealing agreements and other forms of exclusionary conduct can, of course, restrict rivals in both upstream markets (by, for example, restricting rivals' access to raw materials used in a manufacturing process) and downstream markets (by, for example, restricting rivals' access to distributors or even consumers). All are referred to as "inputs" in this article.

[2] *E.g.*, Roland Mach. Co. v. Dresser Indus., 749 F.2d 380, 395 (7th Cir. 1984).

[3] ABA Section of Antitrust Law, Antitrust Law Developments 222 n.1275 (5th ed. 2002) (listing cases).

Treating exclusive dealing as a unique kind of competitive restraint for which special rules are required is problematic. In the first place, although rules of thumb like a specified percent foreclosure test are not unrelated to the competition issues raised by exclusive dealing agreements, they are often too wooden and inflexible to provide a sound basis for decision. And they often introduce complex elements of proof that might be unnecessary, such as the requirement of defining a market and determining the percentage of it foreclosed by the agreement.

More important, as explained more fully below, special substantive rules applicable to different categories of conduct necessarily divert competition analysis into a formalistic inquiry that often has little to do with the economic substance of the matter at hand. Thus, for example, special rules applicable to exclusive dealing agreements require antitrust decision makers to determine whether the agreement at issue is properly categorized as an exclusive dealing agreement and, as a corollary, encourage parties to tinker with the details of their arrangements in order to change the likelihood that they will be deemed to fall into one category or another. These kinds of formalistic inquiries disserve the purposes of sound competition law by increasing transaction costs and creating incentives that distort marketplace behavior.

These problems could be avoided if exclusive dealing agreements were treated as one subset of a wide range of conduct that can exclude rivals from antitrust markets and if their lawfulness were determined by applying to them basic principles applicable to exclusionary conduct in general, albeit with careful attention to the particular facts. Accordingly, in this article I explore whether there are such unifying principles that might prudently be used to determine the lawfulness of a wide range of exclusionary conduct, including exclusive dealing agreements. As will be seen, this question is ultimately one of legal policy, not one of economic theory.

In this article, I first discuss exclusionary conduct in general and the need to consider both benefits and costs of such conduct in order to assess its desirability and lawfulness under the antitrust laws. I then analyze some alternative approaches and argue that one—sometimes called the "sacrifice test"—might provide a useful, unifying principle. I conclude with a more detailed analysis of exclusive dealing.

I. EXCLUSIONARY CONDUCT IN GENERAL

Antitrust is concerned with private conduct that restrains trade. Such conduct can take one of two forms: (1) collaboration among those that would otherwise be rivals or (2) exclusion of rivals or potential rivals from

the market. Anticompetitive collaboration or collusion among actual and potential rivals includes some mergers, joint ventures, and cartels—all of which are forms of "horizontal" agreements—that can raise the prices or reduce the output of the parties to the agreement. They can injure competition by reducing competition among firms that agree to participate in the collaboration.

By contrast, exclusionary conduct injures competition by reducing the output or increasing the costs of rivals that do not agree to the arrangement. Exclusionary conduct weakens rivals, thus reducing their capacity to exert a competitive restraint on other firms.

The focus of this article is on exclusionary conduct. Exclusionary conduct can include both (1) unilateral, or single-firm practices, which are subject to Section 2 of the Sherman Act, and (2) agreements, including "vertical" agreements, between firms that do not compete with one another or, more precisely, agreements that do not concern the way in which the parties to the agreement will compete against one another. Like all agreements, these agreements are subject to both Sections 1 and 2 of the Sherman Act.[4]

Exclusionary conduct can be unambiguously anticompetitive. For example, if Firm A destroys its rival's factory or pays suppliers of inputs that are needed by the rival but not used by Firm A not to do business with the rival, Firm A can exclude the rival from the marketplace without creating any plausible efficiency benefit. Such conduct is sometimes called "naked exclusion."[5]

Most conduct that excludes rivals, however, provides some efficiency benefits that must be taken into account to determine whether the conduct, on balance, is anticompetitive and, thus, violates the antitrust laws. For example, cutting prices can exclude rivals by making it harder for them to find customers and, thereby, possibly increasing their average variable costs; but cutting prices increases output and consumer welfare and, unless the price is less than the incremental cost, total welfare. Exclusive dealing agreements can deny rivals needed inputs, and tying agreements can impair rivals' access to customers; but both can create numerous efficiencies, such as reducing production, inventory, or sales costs and increasing the loyalty of distributors or other trading partners and, thus, their commitment to their common business venture. Unilateral refusals to deal can also deny rivals needed inputs, but such refusals

[4] 15 U.S.C. §§ 1 & 2.

[5] *See, e.g.,* Thomas Krattenmaker & Steven Salop, *Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power over Price,* 96 YALE L.J. 209, 227–28 (1986).

can nevertheless be procompetitive, both by avoiding inefficient transactions in the short run and by enabling property owners to appropriate the benefits of their investments and thereby creating long-run investment incentives. In some instances, exclusionary conduct of some form might be necessary to bring a product to market; a manufacturer, for example, might need assured purchases from distributors before it will be willing to make a risky investment in a new product. Such assurances could be exclusionary to the extent that they reduce the likely purchases by distributors from rivals of the manufacturer.

II. WEIGHING COSTS AND BENEFITS OF EXCLUSIONARY CONDUCT

Because exclusionary conduct often has efficiency benefits, antitrust has had more difficulty, and been more controversial, when dealing with exclusionary conduct than when dealing with collusion. To be sure, some collusive conduct, such as a joint venture, can have both procompetitive and anticompetitive consequences, and the law has endeavored uneasily to find an optimal method for assessing the pluses and minuses of such conduct. But there appears to be little controversy about the ultimate issue in such cases—whether the agreement is likely to increase or decrease the output of the parties to the agreement.

There is no such consensus about the ultimate issue in cases involving exclusionary conduct. Antitrust has struggled to find a consistent and satisfactory way to determine when conduct that both excludes rivals and creates efficiencies should be regarded as anticompetitive and unlawful. There are numerous ways in which antitrust law might address this question. Some would obviate any effort to balance pluses and minuses:

- At one extreme, for example, antitrust law could condemn any conduct that excludes a rival. Courts have wisely rejected such a construction of the antitrust laws, recognizing that there cannot be economic progress and welfare enhancement without winners, that there cannot be winners in economic competition without losers, and that winners in the marketplace must be permitted to reap the fruits of their success so that future rivals will have ample incentive to strive to be winners.
- A slightly more forgiving variation on the foregoing would be a rule that condemned conduct that excludes rivals if, but only if, the conduct creates market power for the firm that engages in it. While this rule would at least require proof of competitive harm before finding an antitrust violation, it has wisely been rejected by antitrust courts for essentially the same reasons that the more extreme alterna-

tive mentioned above has been rejected—economic welfare is enhanced if successful and innovative firms are permitted to reap the fruits of their success, including market power.

- At the other extreme, the law could provide that conduct is never unlawful if it creates any procompetitive (i.e., output-expanding or welfare-increasing) benefit. Such a rule would be simple to administer but would significantly limit exclusionary conduct as an antitrust offense because, as noted above, much exclusionary conduct provides some kind of benefit. Antitrust courts have wisely rejected this principle, too; for example, low pricing can be unlawful under certain circumstances even though it always increases consumer welfare, and exclusive dealing and tying arrangements can be unlawful even though they almost always have some efficiencies, even if no more than modest transaction cost savings.

By rejecting such approaches, antitrust courts have recognized that sound antitrust law must take both the efficiency benefits and the exclusionary costs into account. The hard question is, how?

A. Market-Wide Balancing

One approach calls for case-by-case balancing of benefits and harms to all the participants in the market. Some cases appear to have suggested such a balancing approach,[6] and Professor Herbert Hovenkamp has prominently articulated in his treatise a definition of exclusionary conduct that is sometimes understood to call for such balancing. As Professor Hovenkamp puts it:

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

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[6] *E.g.*, United States v. Microsoft Corp., 253 F.3d 34, 59 (D.C. Cir. 2001) (per curiam) ("[I]f the monopolist's procompetitive justification stands unrebutted, then the plaintiff must demonstrate that the anticompetitive harm of the conduct outweighs the procompetitive benefit."). The court did not engage in any real analysis of that step, so it is not clear what the court meant by that language. The court found that almost all of the defendant's allegedly anticompetitive conduct had no justification at all and concluded that the conduct was illegal without balancing: it simply asserted without explanation that the one or two aspects of the challenged conduct that it found had some procompetitive effect were for that reason lawful.

[7] 3 Philip Areeda & Herbert Hovenkamp, Antitrust Law ¶ 651a (2d ed. 2002). Professor Hovenkamp uses the term "exclusionary conduct" to describe conduct that he believes should be regarded as anticompetitive. In this article, by contrast, "exclusionary conduct" is used in a broader, purely descriptive sense to describe all conduct that excludes

Part (1) of this definition concerns issues of causation and competitive harm, both of which I assume for the sake of argument can be proven. Parts (2a) and (2b) concern the conceptually easy case of harm without benefit. It is part (2c), which has been called the "disproportionality test," that is relevant to the present discussion of conduct that creates both efficiency benefits and exclusionary harm.

On its face, the disproportionality test seems reasonable because it calls for balancing benefits and harms and would condemn conduct only when the latter outweigh the former. And it seems consistent with the broader fabric of antitrust law and, in particular, with the rule of reason that is used to assess collusive conduct other than that which is deemed to be unlawful per se.

There are, however, serious problems with this test, at least if it is construed literally. In the first place, it is incomplete because it provides no guidance about how to determine whether or when the harms are disproportionate to the benefits. By its terms, it is an invitation to ad hoc balancing with no explicit or commonly understood algorithm. That, of course, would be a recipe for arbitrary judicial decision making and its corollaries, unpredictable antitrust laws and a resulting undermining of the ability of antitrust law to deter anticompetitive conduct while not deterring procompetitive conduct.

At least as a theoretical matter, this shortcoming might be easy to correct. The balancing need not be standardless. The substantive purpose seems clear enough: weigh the increase in consumer (or total) welfare caused by the efficiencies of conduct against the reduction in consumer (or total) welfare caused by the exclusion of rivals. And if one favored a cautious approach to antitrust intervention, one could tip the scales by condemning only exclusionary conduct that creates harm that is, say, twice the benefit to consumers.

Unstated in this formulation of the issue, however, is the time period that is relevant to the analysis or, to be more precise, whether the analysis should be static or dynamic. Consider, for example, the paradigmatic, stylized predatory pricing case. In period 1, oligopolist A reduces its previously supracompetitive price and thereby increases consumer (and probably total) welfare. A's rivals are forced to exit because they cannot match the price cut. As a result, A gains monopoly power and charges in period 2 a monopoly price that is higher than the oligopoly price that prevailed in the status quo ante. Welfare is reduced in period 2, compared not only to period 1 but also to the status quo ante.

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rivals. *See also* Herbert Hovenkamp, *Exclusion and the Sherman Act,* 72 U. CHI. L. REV. 147 (2005).

An antitrust decision maker evaluating this pattern could, in principle, determine the lawfulness of the conduct by weighing the welfare gain in period 1 against the welfare loss in period 2. This type of balancing test, which requires weighing the long-run costs of exclusion and the resulting market power, can be referred to as dynamic market-wide balancing.[8]

Although conceptually clear, there are serious problems with such a balancing test. First, it would be hard to apply and, indeed, would likely be beyond the competence of courts and enforcement agencies. Weighing the benefits to welfare from the conduct against the harm to welfare from the exclusion of rivals would require quantifying both welfare effects by estimating price, cost, and quantity of output under two conditions—before and after exclusion of rivals; dealing with the time dimension (both duration and discounting to present value) of each; and comparing both to a hypothetical but-for world in which the conduct did not take place. Efforts to shortcut the process by substituting intuition or educated guesses for precise calculation would reduce transaction costs but also would move the analysis along a continuum from probably impossible precision toward arbitrary decision.

Second, even if courts or antitrust agencies could do the balancing after the fact with acceptable accuracy, the standard would still fail the requirement of any sound antitrust law that it give sufficient guidance to businesses to enable them to comply with the law without excessively forgoing aggressive competition.[9] The balancing test would require a firm to determine, before it embraces new competitive strategies, not just the impact of the strategies on its business, but also the impact on rivals and to weigh the benefits to its consumers against the long-run harm to consumers if the firm's less-inventive rivals are weakened or driven from the market as a result. Assessing the long-run harm would require, among other things, calculating the duration of the harm in light of responses by competitors, new entry, and future innovation. Firms would rarely, if ever, be able to make such a comparison. A legal rule that depended on such a comparison would, thus, be widely disregarded, would greatly over-deter desirable conduct, and/or would

[8] *See* Steven Salop & R. Craig Romaine, *Preserving Monopoly: Economic Analysis, Legal Standards, and* Microsoft, 7 GEO. MASON L. REV. 617, 650–53, 659–65 (1999) (advocating a dynamic market-wide balancing test that the authors call the "unnecessarily restrictive conduct test").

[9] *See, e.g.,* Note by the United States, Roundtable on Competition on the Merits, OECD, DAF/COMP/WD (2005) 13 at ¶ 15 (May 18, 2005) (choice among competition law standards should take into consideration, not just the risks of error in the particular case, but also "the effect of the articulated standard generally on business conduct in the marketplace").

increase transaction costs by inducing investment in efforts to make the comparison, or at least a paper record, intended to show that the firm tried to do so.

Third, a balancing test of this type flies in the face of a powerful intuition—the notion that firms are entitled to benefit from success achieved by "competition on the merits," even if the success includes monopoly power. It is easy to imagine unambiguously procompetitive conduct that results in monopoly power. Consider, for example, the firm that invents a better mousetrap. Consumers, when given a choice between the new mousetrap and preexisting models, might be willing to pay 5 percent more for the new version. The defendant might sell it for only 3 percent more, and that price might both enable the defendant to defray its variable costs and, at predicted volumes, its fixed costs and drive its rivals from the market. After their exit, the defendant might be able to increase its price by, say, an additional 10 percent; rivals would not reenter because they would know that the defendant would reduce its price and preclude their profiting from entry.[10] As a result, the defendant might obtain an enduring monopoly where welfare costs would exceed the benefits of the invention. But the defendant would not be found to have violated the antitrust laws. Antitrust law has long embraced the principle, even with respect to conduct of this type that creates market power, that "[t]he successful competitor, having been urged to compete, must not be turned upon when he wins."[11]

This principle is more than an expression of respect for winners. It reflects also a presumption that permitting innovators to reap the fruits of their success will enhance incentives for entrepreneurship and will thereby increase economic welfare more than would a legal regime that protected rivals in a way that dampened such incentives.

One might object that the hypothetical mousetrap in the example above, like price cutting, succeeds because it shifts the rivals' demand curves. Maybe conduct that injures competition by shifting rivals' cost curves is different.[12] It is not clear, however, why that difference should matter for this purpose. Suppose, for example, that a local telephone monopoly was able to improve its phone service only by implementing a technical change to its infrastructure and that doing so imposed costs

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[10] This deterrence strategy, of course, requires that entry entail at least some sunk costs.

[11] United States v. Aluminum Co. of Am., 148 F.2d 416, 430 (2d Cir. 1945) (*Alcoa*).

[12] Shifting cost curves is the key to the difference. The better mousetrap, price-cutting, and other demand-shifting strategies can increase rivals' marginal or average costs by reducing demand for and purchases of rivals' products, thereby moving the rivals' output along their cost curves.

on competing telephone providers that were required to change their systems in order to interconnect with the monopoly system. An antitrust requirement that the monopoly must take into account the impact of its improvements on its competitors' costs would not be consistent with the intuition that one is entitled to compete on the merits and to reap the fruits of his success.[13] Nor would such a requirement be able to avoid the first two problems noted above—the likelihood of enforcement errors and the nearly impossible burden placed on firms trying to determine whether their conduct violates the antitrust laws.[14]

B. Legal Policy, Instead of Pure Theory

The foregoing strongly suggests that an antitrust rule that sought to mirror economic theory by condemning all and only welfare-reducing conduct is not practical. If that is correct, the selection of the optimal antitrust rule for identifying anticompetitive exclusionary conduct must reflect a policy judgment about the optimal rule.

The judgment must take into account the effects of alternative rules both ex post—when applied by courts and enforcement agencies—and ex ante—when businesses are deciding how to compete. Broadly speaking, the judgment should not necessarily seek to take into account all of the costs and benefits entailed in each case, but rather to minimize the sum of the costs of enforcement errors and transaction costs overall. The costs of enforcement errors include the costs of condemning and deterring welfare-enhancing conduct and the costs of not condemning and thus not deterring welfare-reducing conduct.[15] The transaction costs include both enforcement costs and compliance costs, i.e., the costs of figuring out what conduct the law permits and what conduct it prohibits and of taking steps to modify the conduct to account for legal risks.[16]

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[13] This hypothetical could, of course, raise very different issues of telecommunications regulation and contractual opportunism.

[14] These concerns could be largely avoided by a rule that the monopoly must actually defray the costs that its improvement imposed on competitors. But that kind of rule would reduce innovation incentives by permitting rivals to benefit from, and to free ride on, the monopoly's innovations.

[15] Taking account of the costs of enforcement errors requires assessing both the likelihood and the cost of such errors in light of, among other factors, the institutional context in which antitrust enforcement takes place. That context includes, among other things, the role of juries in private cases, the multiplicity of potential plaintiffs, availability of treble-damage remedies, and the unavailability of contribution among defendants.

[16] The costs of enforcement errors and enforcement costs are related, but it is unlikely that they always correlate either directly or inversely. As a general matter, an increase in enforcement costs should tend to reduce enforcement errors in the particular case, although there are likely to be diminishing returns to that benefit. But an increase in enforcement costs could be correlated with increased enforcement errors if the enforce-

Basing antitrust principles on legal policy judgments does not preclude principles that attempt to balance benefits and harms. But it requires, among others, a judgment about what benefits and what harms should be taken into account.

1. *The Possibility of Different Rules for Different Types of Conduct*

If antitrust rules are to reflect legal policy judgments, they could, in principle, vary depending on the type of conduct at issue. One could imagine, for example, one rule applicable to price cutting that takes account of the likelihood and costs of false positives and false negatives and other legal policy considerations applicable to such conduct, and a different rule for exclusive dealing agreements that reflects the different balance of legal policy considerations applicable to them. Each rule could be optimized for the particular type of conduct to which it applies.[17]

Such an approach could be defended as a matter of theory, but it would be problematic in practice. In the first place, while one can describe different rules optimized for different posited and precisely defined types of conduct, the real world is usually more ambiguous than such abstractly defined categories. Different rules for different types of conduct would inevitably invite disputes about how the conduct at issue should be categorized. Thus, for example, antitrust decision makers would have to decide whether a price reduction conditioned on a customer's buying all its needs for a product constitutes an exclusive dealing arrangement, price cutting subject to predatory pricing rules, or something else.[18] Indeed, the cases make clear that there are boundless opportunities for such disputes. Cases in just the last few years have raised, in addition to the pricing/exclusive dealing issue, issues including whether nonlinear pricing should be in a different category from simple low or discounted pricing,[19] whether bundled discounts should be in the same category as single product discounts,[20] whether price cuts accompanied by capacity expansion are properly assessed by standards applicable to

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ment costs reflect investigation of, or a need to resolve, issues that (1) do not significantly enhance the likelihood of determining whether the conduct at issue is anticompetitive and (2) are difficult to resolve reliably. Moreover, legal rules that require substantial enforcement costs for their application will lead to an increase in enforcement errors to the extent that the prospect of such costs deters efficient transactions or legal challenges to anticompetitive transactions.

[17] *See generally,* Mark S. Popofsky, *Defining Exclusionary Conduct: Section 2, the Rule of Reason, and the Unifying Principle Underlying Antitrust Rules, infra* this issue, 73 ANTITRUST L.J. 435 (2006).

[18] *See, e.g.,* LePage's Inc. v. 3M, 324 F.3d 141 (3d Cir. 2003) (en banc), *cert. denied*, 124 S. Ct. 2932 (2004).

[19] *See* Concord Boat Corp. v. Brunswick Corp., 207 F.3d 1039, 1062 (8th Cir. 2000).

[20] *See LePage's,* 324 F.3d at 141.

predatory pricing,[21] whether alleged predatory "overbuying" should be in the same category as predatory pricing by sellers,[22] whether software bundles should be in the same category as other types of bundles for tying purposes,[23] whether product design should be in a separate antitrust category,[24] whether exclusive dealing terminable at will and induced by threatened refusals to deal should be in the same category as long-term exclusive dealing agreements,[25] whether a refusal to share trade secrets is properly regarded as a refusal to deal,[26] and whether patent pools should be in the same category as other bundles for tying purposes.[27] A legal regime that invites such disputes would multiply legal proceedings and increase legal process costs.

Courts would be sorely tempted to resolve disputes about how to categorize new or complex forms of conduct by using the kind of analogical reasoning to which they are accustomed in more ordinary legal contexts. To the extent that they do so, the result would likely be a collection of legal rulings based on formal attributes of conduct that often disserve the substantive, economic objectives of antitrust law. Moreover, even if courts avoided that pitfall, disagreements about how to categorize conduct would necessarily reduce predictability and increase uncertainty in antitrust disputes. If categories turned on matters of degree, such as the duration of an agreement, the outcome would necessarily be arbitrary. Inconsistency and lack of predictability would be compounded to the extent that litigants were able successfully, in a legal regime that was hospitable to the idea of different rules for different types of conduct, to persuade decision makers that the conduct at issue in their case required the creation of a new category and a new antitrust rule. And the more categories and rules courts were called upon to create, each requiring a sophisticated analysis of the economic and legal process considerations applicable to the conduct at issue, the more mistakes courts would make.

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[21] *See* United States v. AMR Corp., 335 F.3d 1109, 1115 n.6 (10th Cir. 2003).

[22] *See* Confederated Tribes of Siletz Indians of Or. v. Weyerhaeuser Co., 411 F.3d 1030 (9th Cir. 2005), *petition for cert. filed* (U.S. Sept. 23, 2005) (No. 05-381).

[23] *See* United States v. Microsoft Corp., 253 F.3d 34, 89–95 (D.C. Cir. 2001).

[24] *See id.* at 65.

[25] *See* United States v. Dentsply Int'l, Inc., 399 F.3d 181 (3d Cir. 2005).

[26] *See* Rambus Inc., FTC Docket No. 9302, 2004 WL 390647 (initial decision Feb. 23, 2004), *available at* http://www.ftc.gov/os/adjpro/d9302/040223initialdecision.pdf, *appeal pending;* Brief of Appellee and Cross-Appellant Rambus Inc. at 113–14 (June 2, 2004) (on file with author).

[27] *See* U.S. Philips Corp. v. ITC, 424 F.3d 1179 (Fed. Cir. 2005) (patent misuse case relying heavily on antitrust principles).

In addition, even apart from the difficulty that a legal regime with multiple rules would have reaching sound and predictable results ex post, such a regime would create perverse incentives ex ante. To the extent that antitrust outcomes depend on categorical or formalistic inquiries, antitrust law would encourage parties to alter the details of their arrangements in order to change the likelihood that those arrangements would be deemed to fall into one category or another. That, in turn, would distort marketplace behavior in ways that, because they reflect a departure from the firms' otherwise preferred course of conduct, would be likely in many, if not most, cases to reduce efficiency; and it would result in different legal treatment for different types of conduct that have the same economic effect. In these ways, too, categorical or formalistic distinctions can disserve the purposes of sound antitrust law.

Finally, a legal regime with different rules for different types of conduct would inevitably increase transaction costs. It would do so ex post by inviting parties to litigate the threshold categorization issue, and it would do so ex ante by increasing uncertainty and by creating incentives for carefully crafted transactions in an effort to navigate the legal thicket. Thus, there is much to be gained by continuing the search for unifying principles that could both sensibly take account of applicable legal process considerations and avoid the many costs that would be created by an antitrust regime of different rules for different types of exclusionary conduct.

2. *Static Balancing*

One possible unifying principle would be similar to, but less ambitious than, the kind of dynamic market-wide balancing discussed above. Instead of weighing the benefits of the conduct against the long-run welfare costs of the resulting increase in market power, the test might weigh the welfare benefits to the defendant against the static welfare costs caused by the harmful impact of the defendant's conduct on its rivals. One could, for example, compare the amount by which the conduct at issue increased the defendant's output with the amount by which it reduced its rivals' output; or one could compare the benefits from the conduct for the welfare of consumers of the defendant's product with the effects of the defendant's conduct on the welfare of its rivals' consumers.[28] Such a test, which would require balancing of harms and benefits but would not require calculation and balancing of long-run or dynamic welfare effects, can be thought of as a static market-wide balanc-

[28] The latter approach is likely to be useful only if the rivals' products are differentiated such that the rivals' customers are unable to avoid the harm by switching to the defendant's products.

ing test.[29] To reduce the risk of deliberate slacking by would-be competitor plaintiffs, any such test would probably have to be complicated by inclusion of some sort of mitigation requirement that would often, among other things, require the decision maker to construct a hypothetical world in which the defendant's rivals did all the required mitigation, and then to compare the costs and benefits of the conduct in that world.

A static market-wide balancing test would be easier to apply than a test that required calculation of the long-run costs of the resulting market power. But, as explained more fully below, it would still pose a daunting challenge to any decision maker and would place a costly and often impossible burden on the defendant when deciding in real time how to conduct its business. The predictable result of that burden would be to undermine the deterrent function of the antitrust laws, either by deterring desirable conduct or by causing firms not to try to conform to the law in the belief that the law's uncertainty reduces the likelihood of legal sanction or increases the costs of compliance, or both.

Static market-wide balancing has other problems as well. In the first place, at least with respect to some types of conduct, such as refusals to deal, it does not take account of the dynamic costs of antitrust intervention—reduced incentives for investment and innovation. It is, thus, likely to lead to false positives in enforcement.

In a very different way, static balancing is either systematically underinclusive or a tool applicable to only some types of exclusionary conduct. The only costs or harms taken into account in static balancing are the static costs of defendant's conduct to rivals or their customers. Thus, while a static balancing test might provide a means for assessing conduct that increased rivals' costs, it would provide no basis for condemning conduct, like predatory pricing, that does not raise rivals' costs.[30]

Moreover, any market-wide balancing test, whether dynamic or static, is in tension with the notion that antitrust law should not condemn, and indeed should promote, aggressive competition on the merits—competition that meets some notion of fair play—even if rivals are harmed by it. That notion is not just an intuition. It has repeatedly been expressed in the cases, which have held that even a monopolist is entitled to reap the fruits of its "skill, foresight and industry"[31] or its "superior

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[29] Professor Salop proposes such a test, which he calls a "consumer welfare effects test." *See* Steven C. Salop, *Exclusionary Conduct, Effect on Consumers, and the Flawed Profit-Sacrifice Standard, supra* this issue, 73 ANTITRUST L. J. 311, 329–33 (2006) [hereinafter *Consumer Welfare Effect*].

[30] *See supra* note 12.

[31] United States v. Aluminum Co. of Am., 148 F.2d 416, 430 (2d Cir. 1945).

product [or] business acumen . . . ."[32] These cases do not suggest that competition on the merits is lawful unless it imposes disproportionate harms on the defendant's rivals or their customers. The cases direct attention, instead, simply to the nature of the defendant's conduct, to whether the conduct is competition on the merits from the perspective of *the firm.*

3. *Excluding Equally Efficient Rivals*

Competition on the merits is sometimes associated with the idea that antitrust law should condemn only conduct that would exclude an equally efficient rival, and some have suggested that the legal test should be whether the conduct would exclude such a rival.[33] On its face, this is an attractive objective because it seems desirable that the most-efficient firm should win the competition and because rules aimed at that objective would create incentives for efficiency.[34]

This is not, however, likely to be useful as an antitrust rule in itself. For one thing, it is not clear what it means to exclude only a less-efficient rival, especially when firms and products are heterogeneous. For example, a rival that is less efficient today might become equally or more efficient if permitted time to develop learning-by-doing economies or if its sales grew and enabled it to gain scale economies. Should that rival be regarded as less efficient, or should the court be expected to compare its long-run cost curve to that of the defendant? And, for another example, what if the defendant firm has certain economies of scope but its rivals have or might obtain different but equally valuable economies of scope? How should these be compared? Should the court determine which economies the rival can be expected to obtain in the future? Or, what if the firms use different production technologies with different combinations of fixed and variable costs?

Moreover, even apart from these ambiguities, it would often be impossible for firms to apply any version of the equally efficient rival test when attempting to conform their conduct to the requirements of the law in the real world. Doing so would require firms to know a great deal about their rivals and the ability of the rivals to respond in the marketplace. Firms would predictably respond to such a rule by making inadequately informed guesses and papering their files with self-serving analyses.

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

[33] *See, e.g.,* RICHARD A. POSNER, ANTITRUST LAW 194–95 (2d ed. 2001).

[34] While a rule that achieved this objective might ensure that marketplace winners were efficient, it would not necessarily maximize welfare. Even a less-efficient firm can enhance welfare if it serves a part of the market and increases output and lowers prices, as compared to a monopoly or oligopoly outcome in a market from which it was excluded.

The objective of not excluding equally efficient rivals is best regarded as a useful criterion for evaluating antitrust rules. It provides, for example, a rationale (subject to the qualifications noted above) for condemning below-cost pricing but not price cuts to above-cost levels.[35] But the objective of excluding an equally efficient competitor is neither sufficiently precise nor sufficiently administrable to be a desirable antitrust rule in itself.

4. *The Sacrifice Test*

A better approach would be an antitrust rule that directed firms to focus entirely on their own conduct. Focusing on the defendant's conduct does not require returning to the idea, rejected above, that any benefit will suffice to protect the defendant's conduct from antitrust challenge. It directs attention, instead, to a different test that attempts to deal with both the costs and the benefits of exclusionary conduct. Under this test, the decision maker weighs the costs and benefits of the conduct *to the defendant*. In particular, under this test, conduct is anticompetitive if, but only if, it makes no business sense or is unprofitable for the defendant but for the exclusion of rivals and resulting supracompetitive recoupment. The test calls for two basic inquiries.

(1) The first asks whether the conduct is profitable to the defendant in light of its (incremental) costs and (incremental) benefits.[36] For this purpose, the costs are the avoidable costs incurred by the defendant as a result of the conduct, including opportunity costs. The benefits are the variable cost savings realized by the defendant as a result of the conduct, revenues from additional units of goods or services sold by the defendant as a result of the conduct, and increased revenues attributable to quality improvements and the resulting increase in demand for the defendant's goods or services. Benefits do not include the ability to charge higher prices, or a downward shift in the variable cost curve, as a result of the exclusion of rivals.[37]

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[35] *See, e.g.,* William J. Baumol, *Predation and the Logic of the Average Variable Cost Test,* 9 J.L. & ECON. 49 (1996).

[36] In order to avoid condemning a defendant because of unanticipated marketplace developments, the inquiry focuses on whether the conduct was reasonably expected to be profitable when it was entered into. The inquiry focuses not on subjective intent, but rather on objective market factors reasonably knowable by the defendant at the time of the conduct.

[37] For example, if the conduct is price cutting, the decision maker would disregard the benefit that the defendant might enjoy by being able to raise prices after its rivals have exited; if the conduct is building a better mousetrap, the decision maker focuses on the mousetrap and the terms on which it is sold and ignores the prospect that the defendant might in the future be able to raise price or lower quality. Similarly, the decision maker would ignore cost savings attributable to reduced customer service as a result of diminished

(2) The second inquiry asks whether the conduct enabled the defendant to gain additional market power or a dangerous probability thereof.[38] Taken together, the two inquiries seek to determine whether the conduct would have made sense for the defendant regardless of resulting market power (because its incremental revenues exceeded its incremental costs)—in which event the conduct is lawful—or whether it made sense for the defendant only because of the resulting market power (because it was otherwise unprofitable)—in which event it is deemed to be anticompetitive. As a logical matter, one could dispense with the second test on the ground that, if the conduct is unprofitable without regard to resulting market power, the likelihood of that payoff can be presumed.[39] The law does not do so, however, presumably because it fears false positives in the application of the first inquiry and does not, in any event, want to condemn simple mistakes by firms that undertake unprofitable strategies but have little prospect of harming competition.

This test appears to have been explicitly embraced by the Supreme Court in *Aspen Skiing*[40] and was suggested by the Supreme Court in its recent *Trinko* decision.[41] It has been relied upon in numerous courts of appeal decisions involving a wide variety of exclusionary conduct[42] and

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competition (a shift in the cost curve), but would not ignore reduced average costs for customer service as a result of increased output (a movement along the cost curve).

[38] This article does not address the questions whether there is a difference for this purpose between monopoly power and market power and, if so, whether cases under Section 2 of the Sherman Act require the former while the latter will suffice for cases under Section 1 of the Sherman Act.

[39] If, as the Justice Department argued in the *Microsoft* case, an alleged tie-in satisfies the two-product requirement only if refusing to offer the two items separately is inefficient and unprofitable for the defendant, then the quasi-per se rule applicable to tie-ins could be said simply to reflect such a presumption. *See* Brief for Appellees United States and the State Plaintiffs at 99–100, United States v. Microsoft Corp., 253 F.3d 34 (D.C. Cir. 2001) (Nos. 00-5210, 00-5513 99-100). There is, however, little if any reason to expect that market power consequences are more likely from tie-ins than from other types of allegedly exclusionary conduct and, thus, little if any reason to rely on such a presumption only in the case of tie-ins. *See generally* Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 466 U.S. 1, 33–42 (1984) (O'Connor, J., concurring).

[40] Aspen Skiing Co. v. Aspen Highlands Skiing Corp., 472 U.S. 585, 608, 610–11 (1985).

[41] Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 409 (2004).

[42] *See, e.g.*, Concord Boat Corp. v. Brunswick Corp., 207 F.3d 1039, 1062 (8th Cir. 2000) (nonlinear pricing); Stearns Airport Equip. v. FMC Corp., 170 F.3d 518, 522, 524 (5th Cir. 1999) (claim that competitor attempted improperly to influence municipality bidding processes); M&M Medical Supplies and Serv., Inc. v. Pleasant Valley Hosp., Inc., 981 F.2d 160, 167–68 (4th Cir. 1992) (en banc) (claim that hospital, which also owned a medical equipment company, had illegally excluded a competing medical equipment company from serving the hospital's patients); Advanced Health-Care Servs. Inc. v. Radford Cmty. Hosp., 910 F.2d 139, 148 (4th Cir. 1990) (exclusive dealing agreement); General Indus. Corp. v. Hartz Mountain Corp., 810 F.2d 795, 803 (8th Cir. 1987) (revocation of credit to competing customer); Neumann v. Reinforced Earth Co., 786 F.2d 424, 427 (D.C. Cir.

has repeatedly been supported by the antitrust agencies in their enforcement actions[43] and amicus briefs.[44]

The test is sometimes referred to as the "sacrifice test" because it implies that even conduct that excludes rivals is lawful if it is profitable on its own terms, without regard to any market power it might create, and, as a corollary, that conduct that excludes rivals is anticompetitive only if the defendant is sacrificing profits as part of a strategy to obtain market power. This locution, however, can be misleading. It might be thought to suggest that, under the test, conduct is anticompetitive only if it entails losses in the short run followed by monopoly recoupment in some later period. With this interpretation in mind, for example, Professor Einer Elhauge asserts that "[t]he fundamental problem with the profit-sacrifice test is that it focuses on the timeline of efforts to increase profits rather than on whether the means of increasing profits are desirable."[45]

That is incorrect, or at least it does not describe the kind of test contemplated by this article. As the Justice Department has long recognized, the test depends, not on the timeline, but rather on the nature of the conduct—on whether it would make no business or economic sense but for its likelihood of harming competition.[46] The Justice Department relied on this test in its monopoly maintenance case against Microsoft, in which the anticompetitive rewards, raising entry barriers to and, thus, reducing the competitive risks facing Microsoft's desktop operating system monopoly, were at least partly realized immediately by Microsoft.

It might make sense, therefore, to use a more accurate shorthand by which to refer to the test—perhaps something like "the business sense"

1986) (predatory litigation); *see also* High Tech. Careers v. San Jose Mercury News, 966 F.2d 987, 990 (9th Cir. 1993) ("[I]f there is a valid business justification for [defendant's] conduct, there is no antitrust liability"); Trace X Chem. Inc. v. Canadian Indus., Ltd., 738 F.2d 261, 266 (8th Cir. 1984) ("[C]onduct without legitimate business purpose [is] conduct [that] makes sense only because it eliminates competition").

[43] *See, e.g.,* Brief of the United States at 18, 26–27, United States v. Dentsply Int'l, Inc., 399 F.3d 181 (3d Cir. 2005) (No. 03-4097); Brief for Appellees United States and the State Plaintiffs at 48, United States v. Microsoft Corp., 253 F.3d 34 (D.C. Cir. 2001) (Nos. 00-5212, 00-5213).

[44] *See, e.g.,* Brief for the United States and the Federal Trade Commission at 14–17, Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP, 124 S. Ct. 872 (2004) (No. 02-682); Brief of Amicus Curiae United States, Consolidated Rail Corp. v. Delaware & Hudson Ry. Co., 500 U.S. 928 (1991).

[45] Einer Elhauge, *Defining Better Monopolization Standards,* 56 STAN. L. REV. 253, 292–93 (2003). Elsewhere, Elhauge acknowledges that "one can read some versions of the profit-sacrifice test" to be more like the test proposed here. *Id.* at 293; *see also id.* at 271–72.

[46] *See supra* note 43. *See also* Gregory J. Werden, *Identifying Exclusionary Conduct Under Section 2: The "No Economic Sense" Test, infra* this issue, 73 ANTITRUST L. J. 413, 422–25 (2006).

test or, as Greg Werden puts it, the "no economic sense" test.[47] But, because the term "sacrifice test" is already widely used, that term will be used in this article.

As a general principle for assessing exclusionary conduct, the sacrifice test has the following benefits:

(1) Under the sacrifice test, the antitrust laws do not condemn—and thus will not deter—competition on the merits, i.e., conduct that makes business sense because, for example, it reduces the defendant's costs or improves the defendant's products or otherwise makes them more attractive to consumers. Indeed, conduct that provides some efficiency or benefit on a going-forward basis—by reducing costs or prices or improving product quality—will pass the sacrifice test if, but only if, it generates incremental revenues (or cost savings) for the defendant that exceed the incremental costs of the conduct and, thus, enhances the defendant's efficiency.[48] From the perspective of the firm and its customers, such conduct will increase welfare in a static sense, i.e., at least until rivals are excluded and the resulting market power is exercised.[49] Put

[47] Werden, *supra* note 46.

[48] The sacrifice test is intended to deal with conduct that both has efficiency benefits and creates market power by excluding rivals. Conduct that creates market power and has no efficiency benefit can be condemned as naked exclusion without reaching the sacrifice test. Thus, for example, there is no conflict between the sacrifice test and cases like *Walker Process Equipment v. Food Machinery & Chemical Corp.*, 382 U.S. 172 (1966), which involved fraud on the Patent Office, and *Conwood Co. v. U.S. Tobacco Co.*, 290 F.2d 768 (6th Cir. 2002), which involved removing and damaging rivals' display racks and providing false information to retailers, because the conduct involved in those cases had no efficiency benefits. (Moreover, such conduct also imposes costs on the defendants, including the costs of contriving, implementing, and concealing the schemes, and the risks of sanctions if the schemes were detected, and can, in principle, be analyzed under the sacrifice test. *See* Werden, *supra* note 46, at 425; A. Douglas Melamed, *Exclusionary Conduct Under the Antitrust Laws: Balancing, Sacrifice and Refusals To Deal,* 20 BERKELEY TECH. L.J. 1247, 1260–61 (2005) [hereinafter *Refusals to Deal*].)

[49] Refusal to deal cases are more complicated for two related reasons. First, refusals to deal are decisions not to share one's property with a rival. A refusal can avoid both static costs—transaction costs and other inefficiencies from dealing—and dynamic costs when dealing reduces the net returns from the defendant's property and, thus, incentives for investment in such property. Second, rules restricting refusals to deal must confront difficult questions concerning the terms on which dealing might be required. These questions are both practical and theoretical; the practical questions can often be solved by asking whether the defendant is discriminating by refusing to deal with competitors on terms on which it has dealt or is dealing with others.

The sacrifice test can be applied without theoretical complexity in two situations, which might cover most cases. In the first, the defendant refuses to deal at a price that exceeds the opportunity cost of not dealing, e.g., the price at which the defendant sells to others similarly situated. In this situation, which is exemplified by the Supreme Court's decision in *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585 (1985), and the Justice Department's case against AT&T, *United States v. AT&T Co.,* Civ. Action No. 74-1698 (D.D.C.), the refusal to deal plainly entails a sacrifice. In the second situation, the rival

differently, *the sacrifice test condemns only conduct that reduces welfare in a static sense.*[50]

(2) By condemning only conduct that makes no sense apart from exclusion and resulting market power, the sacrifice test ensures that the antitrust laws condemn only conduct from which an anticompetitive intent (as opposed to the laudatory intent to triumph by competition on the merits) can unambiguously be inferred.

(3)The sacrifice test ensures that the most-efficient firms can enjoy the fruits of their "skill, foresight and industry" and that successful firms, including monopolists, will not be punished simply for their success. Conduct that would be deemed to be anticompetitive under the sacrifice test could exclude an equally efficient competitor.

(4) Perhaps most important, the sacrifice test provides simple, effective, and meaningful guidance to firms so that they will know how to avoid antitrust liability without steering clear of procompetitive conduct. Firms will have to ask only whether their conduct makes good business sense regardless of increases in their market power. That question is not always easy to answer, but it is likely to be far more tractable than the questions asked by market-wide balancing tests.

In other words, the sacrifice test reflects widely shared normative intuitions and furthers important policy interests in having administrable legal rules that do not condemn efficient conduct.

The sacrifice test has, however, been criticized by various commentators. Broadly speaking, there have been four types of criticisms.

a. Too Conservative

The most basic criticism is that the test would deem to be lawful some conduct that is on balance welfare-reducing and that would, in theory,

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offers to deal only at a zero price or some other price that is less than the incremental static costs to the defendant of dealing. In this situation, which is the situation involved in *Trinko*, 124 S. Ct. 872 (2004), the refusal to deal plainly entails no sacrifice.

But what if a defendant monopoly refuses to deal with a rival at a remunerative, above-cost price because dealing would preclude or reduce its sales at supracompetitive prices? In that case, the opportunity cost to the defendant from the sale would exceed the net revenues from the refused sale, but the refusal to deal would reduce static efficiency. The law could deem the refusal to be anticompetitive whenever the price would be above-cost (i.e., not unprofitable), or it could permit the defendant to hold out for the supracompetitive price on the ground that that is a legitimate reward for the monopolist's success—that is, that the refusal is efficient in a dynamic sense. I have elsewhere argued that the latter is the appropriate standard. *See* Melamed, *Refusals to Deal, supra* note 48, at 1262–66.

[50] In this respect, the sacrifice test appears to be similar to the test proposed by Professor Elhauge, which would condemn only conduct that excludes rivals "whether or not it enhances monopolist efficiency." Elhauge, *supra* note 45, at 315.

be condemned by some type of market-wide balancing test. As the mousetrap example mentioned above makes clear, this criticism is factually correct.[51] The sacrifice test is underinclusive in this respect.

There are, however, several reasons why the sacrifice test is nevertheless preferable to market-wide balancing tests.

(1) Market-wide balancing tests are much more difficult for courts and agencies to apply ex post and for firms to apply ex ante. Balancing tests would, thus, result in more enforcement errors and increased transaction costs and would, therefore, be more likely to deter desirable conduct.

(2) The theoretical difference between the tests is that the sacrifice test condemns only conduct that is inefficient for the defendant. By contrast, market-wide balancing can condemn efficient conduct on the ground that, in the case of dynamic balancing, it might create market power and, thereby, reduce welfare in the long run or, in the case of static balancing, it might increase rivals' costs. The sacrifice test better reflects the widely shared, somewhat Schumpeterian, normative intuition that firms ought to be permitted to reap the fruits of competition on the merits, even if less skillful or less lucky rivals are disadvantaged.

(3) Market-wide balancing tests reduce the net return to, and thus incentives for, market (rather than legal) responses to aggressive conduct by rivals. They do so both as a general matter, because they imply increased availability of antitrust remedies, and in particular, because they make the determination of whether conduct is anticompetitive turn, in part, on the extent of the harm suffered by rivals (and, as a consequence, by their customers), thereby creating perverse incentives for rivals not to take corrective action in the marketplace. In effect, market-wide balancing tests increase the costs to (or decrease the potential net benefits for) rivals of marketplace responses to aggressive competition. At least as a theoretical matter, therefore, market-wide balancing tests are more likely than the sacrifice test to dampen incentives for dynamic competition.[52]

Ultimately, whether the sacrifice test is too conservative turns largely on an empirical question: whether, considered both ex ante and ex post,

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[51] *See supra* text accompanying note 10.

[52] This problem could be addressed by incorporating a mitigation requirement into the balancing test. Such a requirement would call for the court to determine whether rivals had done all that they should have done to adapt to the defendant's exclusionary conduct and, if not, to calculate the welfare impact assuming they had done so. That, of course, would make balancing tests even more difficult to administer.

the prospect of false negatives from the sacrifice test is more harmful to welfare than the prospect of false positives from, and increased transaction costs and uncertainty associated with, a market-wide balancing test. Absent a more rigorous basis for answering that question, the answer necessarily must turn on judgments based on legal and business experience.

b. Ignores Dynamic Efficiency

A very different criticism, expressed most recently by Professor Elhauge, suggests that the sacrifice test might be too interventionist. According to Elhauge, the sacrifice test can be too interventionist because it might, for example, condemn building a better mousetrap if that entailed incurring costs (such as research and development costs) whose recoupment requires (1) commercial success for the mousetrap sufficient to imply the demise of the firm's rivals and, thus, (2) market power for the firm. In effect, the argument is that the sacrifice test ignores dynamic efficiency.[53]

This criticism overlooks the fact that only conduct that excludes rivals is subject to the sacrifice test. A new mousetrap can exclude rivals only if it is commercialized (or at least expected to be commercialized).[54] The sacrifice test, thus, requires evaluating the terms on which the mousetrap is commercialized. The test asks whether development and commercialization of the mousetrap, at the price and other terms that cause the exit of the rivals, are profitable for the firm.[55] If so, they are regarded as competition on the merits and are not anticompetitive. They are anticompetitive only if the new mousetrap (1) excludes rivals because

[53] *See* Elhauge, *supra* note 45, at 274.

[54] Some kinds of non-market or non-commercial conduct can exclude rivals. Some tortious conduct, such as destroying a rival's property, could be described this way. So, too, could applying for and obtaining patents. In principle, all such conduct can be assessed by the sacrifice test. *See supra* note 48.

[55] It might be more precise to say that the question is whether development and commercialization of the mousetrap *are or would be profitable* for the firm. For example, suppose Firm A builds a better mousetrap and brings it to market at price X, which is well in excess of its variable costs. Suppose further that, at price X, the market prefers the new mousetrap to the alternatives offered by A's rivals, all of whom soon exit the market. Under these circumstances, proper application of the sacrifice test would ask whether development and marketing of the mousetrap would have been profitable *if the price had remained at X*—that is, would the revenues at that price have been sufficient to defray all the fixed and variable costs of the mousetrap. The conduct does not become anticompetitive simply because the mousetrap was so successful that Firm A was able to and did raise the price to 2X before it actually recouped all its fixed costs. (The analysis is the same in principle, but more complicated as a factual matter, if the mousetrap is first offered at temporary, low promotional prices or if network effects cause its value to increase over time and, thus, enable nominal price increases that do not constitute increases in quality-adjusted prices).

it is sold at a low price or on other attractive terms that are not themselves profitable and (2) becomes profitable only when the firm is able to switch to more favorable terms of trade after its rivals have exited.[56]

c. Sacrifice and Predation

Another criticism of the sacrifice test can be summarized as follows: Although the test appears to build upon or generalize from the paradigm of predatory pricing, it in fact does not even explain predatory pricing law.[57] A monopolist, for example, might deliberately set a price (call it X) below the short-run profit-maximizing price (or even below the long-run duopoly profit-maximizing price) in order to drive a new entrant (or long-time rival) out of the market, with the expectation of recouping its profit sacrifice by being able to increase price to even higher levels after the demise of the entrant. Yet, even though the conduct involved deliberate sacrifice in order to gain additional market power, the conduct will be unlawful only if price X is below some measure of actual, avoidable costs.

This criticism reflects an issue that arises only in predatory pricing cases—how to treat forgone revenues from inframarginal purchases. In other words, when Firm A lowers its price from, say, $10 to $8, it gains $8 in revenues from each additional unit sold as a result of the price cut, but it loses $2 in revenues for each unit that it would have sold even if it had kept the price at $10. The issue is sometimes expressed as a choice between requiring that prices be below cost in order to be deemed anticompetitive and requiring only that prices not be profit maximizing (i.e., that they involve a profit sacrifice). For the most part, courts have chosen the below-cost test; that is, they have neither deducted forgone revenues from inframarginal purchases when calculating the defendant's revenues, nor added such forgone revenues to the defendant's costs, in determining the profitability of the defendant's price cuts. The courts

[56] Elhauge recognizes that one could avoid his criticism by combining the sacrifice test with "the exception to *Grinnell*" (Elhauge, *supra* note 45, at 275), by which he presumably means the notion that antitrust does not condemn monopoly power that is a consequence of "a superior product, business acumen or historic accident." United States v. Grinnell Corp., 384 U.S. 563, 570–71 (1966). But, Elhauge argues, that would not solve the problem because the better mousetrap would still give rise to antitrust liability whenever the rival asks to share the mousetrap and offers to pay more than the static costs of the sharing. *See Elhauge, supra,* at 275–76. Contrary to Elhauge's argument, however, the type of sacrifice test advocated here can take account of dynamic efficiency considerations implicated by refusal to deal claims. *See supra* note 49; Melamed, *Refusals to Deal, supra* note 48, at 1262–66.

[57] *See, e.g.*, Aaron S. Edlin & Joseph Farrell, *The* American Airlines *Case: A Chance to Clarify Predation Policy, in* THE ANTITRUST REVOLUTION: ECONOMICS, COMPETITION, AND POLICY (John E. Kwoka, Jr. & Lawrence J. White eds., 4th ed. 2004).

have, in effect, compared the revenues from the defendant's incremental sales, rather than the defendant's incremental revenues, to the incremental or avoidable costs incurred by the defendant to obtain those sales.

On their face, these cases appear inconsistent with the verbal formulations of the sacrifice test, which commonly refer to conduct that entails a profit "sacrifice" or "makes no business sense" and, thus, appear to encompass a deliberate decision to sell at prices below profit-maximizing levels. These predatory pricing cases, however, reflect three important considerations that are unique to predatory pricing. First, as numerous cases have noted,[58] reductions of supracompetitive prices increase output and consumer welfare; and, as long as the resulting prices are not below cost, they reduce deadweight loss and increase total welfare. All other kinds of conduct that violate the sacrifice test reduce welfare, even in a static sense.[59] Second, a rule that condemned pricing for not being profit maximizing would not be administrable. To make any sense at all, the rule would have to compare prices to some anticipated profit-maximizing equilibrium. Only in a case in which an oligopolist had decided to disrupt a stable oligopoly equilibrium to pursue a new course of predation would there be any practical basis for the court after-the-fact or the firm ex ante to know what the profit-maximizing price is. Third, rapacious, above-cost price cuts do not necessarily reduce long-run welfare, even if they succeed in driving rivals from the market. A firm, might, for example, correctly calculate that it can more than recoup its profits sacrificed by a temporary price-cutting campaign; but the fact that the scheme results in a long-run increase in the firm's profits, or its producer surplus, does not necessarily mean that it will result in a net reduction in consumer surplus or total welfare, taking into account both the welfare benefits of the price war and the welfare costs of the resulting increase in market power.[60] In other words, a profit-maximization test can be over-inclusive.

[58] *See, e.g.,* Brooke Group Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209, 223–24 (1993); Barry Wright Corp. v. ITT Grinnell Corp., 724 F.2d 227, 234 (1st Cir. 1983) (Breyer, J.).

[59] Other kinds of potentially predatory or anticompetitive conduct, such as brand proliferation and product enhancements, could entail a cannibalization of revenues from other or preexisting products. To the extent that the conduct entails a diversion of resources from other products, the lost profits on the other products ought to be treated as a cognizable opportunity cost of the strategy. This is what the Justice Department argued but was unable to prove in its monopolization case against American Airlines. *See* United States v. AMR Corp., 335 F.3d 1109 (10th Cir. 2003). Forgone revenues from inframarginal purchases of the same product, however, constitute simply a transfer from producers to consumers and are not ordinarily regarded as an opportunity cost.

[60] The intuition behind this might best be seen by imagining a stable duopoly with supracompetitive prices, a price war, and then a surviving monopolist with slightly higher or even the same prices and a much larger market share.

The upshot is this: The substantive purposes of the sacrifice test are entirely consistent with predatory pricing law. Both strive for administrable tests and condemn only conduct that reduces welfare in both a static and a dynamic sense. They are in tension only in the semantic sense that some verbal formulations of the sacrifice test imply a profit-maximization test for predatory pricing. That tension can be resolved by rephrasing the sacrifice test to require conduct that is literally *unprofitable* for the defendant.[61]

d. Raising Rivals' Costs

The three criticisms of the sacrifice test discussed above focus on the substantive standard that it implies. The fourth criticism, by contrast, challenges the proposition—on which the argument for the sacrifice test largely rests—that it is easier than a market-wide balancing test for courts and firms to apply. Specifically, this criticism is embodied in an argument that the sacrifice test is actually harder to administer in raising rivals' cost cases than is a static market-wide balancing test.[62]

The argument concerns situations—which could arise from exclusive dealing, tying, and more exotic arrangements—in which the defendant's conduct increases its rivals' costs, thereby weakens their competitive vitality, and more or less simultaneously creates additional market power for the defendant and, thus, higher prices. Under the sacrifice test, the court (and the defendant ex ante) must determine what the price would have been if rivals had not been weakened (i.e., without regard to supra-competitive recoupment) to determine whether the conduct would have been profitable but for that recoupment. That difficult, counterfactual inquiry, the argument goes, can be avoided by a static market-wide balancing test that asks only whether the conduct enhanced static welfare and, thus, requires comparison only of actual prices before and after the conduct at issue.

To the extent the argument is that the sacrifice test can be difficult to apply in some circumstances, it is correct. But the claimed comparative

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[61] In their influential article on predation, Professors Ordover and Willig reach essentially this conclusion, although by somewhat different reasoning. Janusz Ordover & Robert Willig, *An Economic Definition of Predation: Pricing and Product Innovation,* 91 YALE L.J. 8, 15–19 (1981).

[62] *See* Salop, *Consumer Welfare Effect, supra* note 29, at 363–67. Salop emphasizes that his version of static market-wide balancing (like the sacrifice test) focuses on effects viewed ex ante, on the basis of the information that was available to the defendant when the exclusionary conduct was undertaken. *Id.* at 348, 352, 365. He argues that his test therefore avoids much of the uncertainty of other types of balancing tests. But the ex ante focus does not avoid the complexity of market-wide balancing. Nor does it even avoid the risk that things will look very different in hindsight because the firm ex ante will have to

advantage of static market-wide balancing, even in those circumstances, proves upon analysis to be illusory except in perhaps what are likely to be very unusual situations. This can be seen by considering three types of simultaneous raising rivals' cost stories.

In the first, defendant's conduct has no efficiency properties and serves only to harm rivals.[63] In this case, the conduct can be readily condemned without application of either a balancing test or a sacrifice test. Naked exclusion does not raise the issue at which these tests are directed: what to do about conduct that both has efficiency benefits and excludes rivals.

In the second type of raising rivals' cost story, the conduct increases rivals' costs and benefits the defendant by enhancing the value of its product. Exclusive dealing, technological tying, and countless other forms of exclusionary conduct often have these properties. This kind of conduct could exclude rivals, both by benefiting consumers and therefore shifting demand away from the rivals and by raising the rivals' costs.

In these cases, the sacrifice test requires determination of what the price would have been if rivals' costs had not been increased in order to determine whether the conduct would have made sense even if it had not raised rivals' costs. But even more difficult determinations are required under the static market-wide balancing test. One cannot simply compare the pre- and post-conduct prices in these cases because, in order to determine whether the conduct increased or reduced welfare, it is necessary to compare *quality-adjusted prices*.[64] It is not enough to compare nominal prices because, if consumers are getting BMWs instead of Toyotas, they might be better off even at a higher price.

One way for a static market-wide balancing test to deal with this problem would be to determine what the prices would have been if the rivals had not exited or suffered cost increases as a result of the defendant's conduct (i.e., without regard to any additional market power). This, of course, is the same determination as that required by the sacrifice test. If that hypothetical price is lower than the actual post-conduct price,

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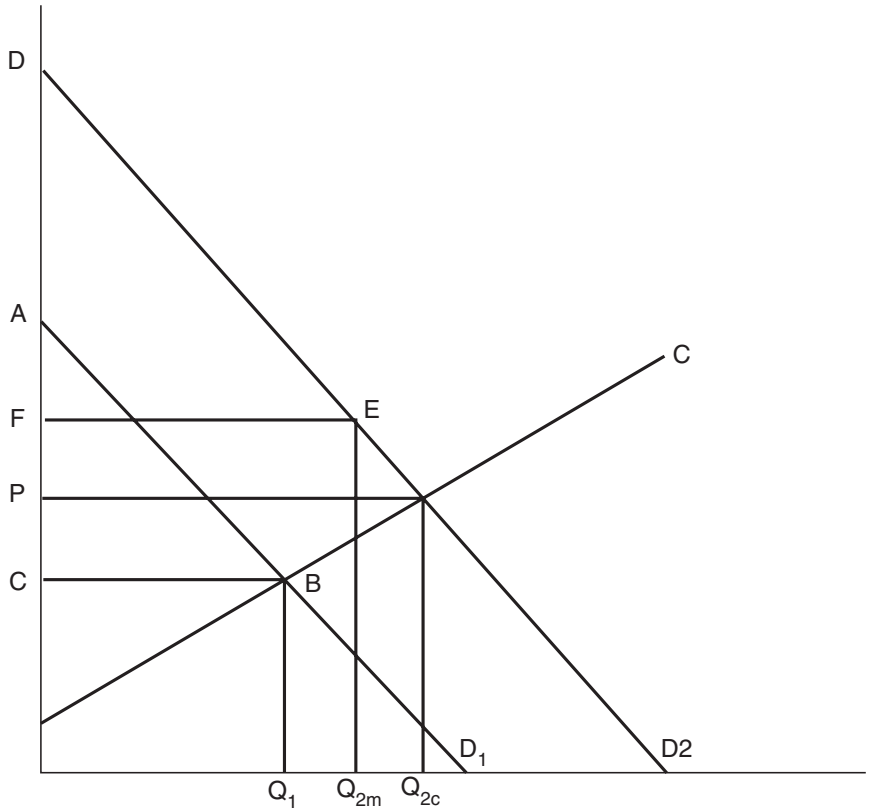
predict what antitrust decision makers in the future will think it should have known when it undertook the conduct at issue.

[63] This case includes both patently naked exclusion (e.g., fraud on the Patent Office) and exclusionary conduct for which there is a less-restrictive alternative (e.g., a tying agreement intended to ensure quality control that could as readily be achieved by quality specifications). *See supra* note 48.

[64] *See, e.g.*, Franklin Fisher, *Antitrust and Innovative Industries*, 68 ANTITRUST L.J. 529, 562 (2000) ("Output reduction is but a deceptively simple way to think about anticompetitive effects. Where products differ as to quality, output has both a quantity and a quality dimension, and defining output reduction, at best, requires a sophisticated and often difficult combination of both.").

one can conclude that quality improvements do not account for the entire price increase.

The inquiry in a static market-wide balancing test does not, however, end here. Even if the quality improvements do not account for the entire price increase, the conduct might still increase welfare. The reason is depicted in the following simplified diagram:



C is the industry's marginal cost curve, which in order to simplify the illustration is assumed to be unchanged by the conduct at issue. D_1 is industry demand before the conduct, and D_2 is demand after the conduct, reflecting the product quality improvement.[65] Before the conduct, the

[65] The diagram in the text abstracts from what might be a more complex story with differentiated products and different costs. The graph literally depicts only the situation in which, prior to the conduct in question, there were several rivals with uniform products and costs and, after the conduct, the defendant's costs were unchanged, its product

equilibrium output was Q_1; price was C; and consumer surplus was shown by the area ABC. If the conduct had not created market power, the post-conduct output would have been Q_{2C}, with price P; but because the conduct did create market power, the actual equilibrium output is Q_{2M}, with price F. Actual post-conduct consumer surplus is the area DEF, which in this diagram is larger than ABC. In other words, in this example, the conduct both created market power and increased consumer welfare. Unless the law is willing to ignore this possibility—which probably describes many of the important innovations in the industrial age—and condemn welfare-enhancing product improvements simply because they create market power, a market-wide balancing test will have to compare, not just prices and costs, but also consumer surplus. Therefore, the balancing test requires a much more difficult calculation than the sacrifice test.

It is only in the third raising rivals' cost story that static market-wide balancing might be easier to apply than the sacrifice test. In this story, the conduct has efficiency benefits only in the sense that it reduces the defendant's costs. It does not increase the quality of, and does not shift the demand curve for, the defendant's products. In these cases, a court could apply a static market-wide balancing test simply by comparing pre- and post-conduct prices. But there are two important caveats: First, that would be the right comparison only if the law were concerned with consumer welfare, rather than total welfare, because the test applied that way gives no weight to the efficiency benefits except to the extent that they are passed on to consumers. Second, in almost all real-world cases, there would be other intervening changes affecting the cost of and demand for the defendant's products, so a simple comparison of before and after prices is unlikely to suffice. Instead, the proper comparison would require determining what the prices and costs would have been but for the defendant's conduct. That counter-factual determination is likely to be at least as difficult for the court as the inquiry required by the sacrifice test.[66]

The analysis thus far has focused only on application of the tests after-the-fact, by a court or agency. When the inquiry turns to whether the tests are administrable by firms in real time—to whether the tests provide

improved, and the rivals exited because their costs were increased. The principle depicted in the diagram can, however, be generalized to more complex situations.

[66] A simple comparison of pre- and post-conduct prices would also be insufficient in cases in which the conduct had the effect, not of increasing prices compared to the status quo ante, but rather of preventing new entry or other conduct by rivals that would have led to lower prices. There, too, the static balancing test would require the court to construct a counter-factual world to determine what would have happened but for the defendant's conduct.

meaningful guidance to firms and, thus, are likely to deter anticompetitive conduct without also deterring aggressive, procompetitive conduct—the sacrifice test appears far superior to static market-wide balancing in all three raising rivals' cost stories. Naked exclusion is easy: The firm knows that there are no efficiency benefits and, in most cases, that the only likely payoff is market power. In the quality enhancement case, the price inquiry is the same under both tests, but the static market-wide balancing tests require the firm to estimate the effect of its conduct on consumer welfare—undoubtedly a much harder task than comparing the quality-adjusted price to the firm's own costs, which is all that the sacrifice test requires.

That leaves the cost-reducing case. If total welfare is the standard, a market-wide balancing test is plainly intractable for the firm. If consumer welfare is the standard, the firm is supposed to calculate before and after prices, assuming no intervening changes; that calculation would require a rather sophisticated estimation of the status of other firms, market demand, and the like. By contrast, under the sacrifice test, the firm need ask only whether the cost savings from the conduct would enable it to recoup any fixed costs attributable to the conduct in question at pre-existing prices. That is likely to be a far more manageable inquiry for the firm.

The raising rivals' cost criticism does make clear that one can imagine difficult factual issues under the sacrifice test. They could be avoided by crude, intuition-based decisions only at the cost of arbitrariness and undermining of the law's deterrence function. They could be avoided by simpler rules only at the expense of even greater over- or under-deterrence. They cannot be avoided by static market-wide balancing in general or even for any identifiable class of cases that is large enough to warrant a special rule. To the contrary, as a general matter, static market-wide balancing requires the resolution of more difficult factual issues.[67]

On balance, therefore, if one accepts the premise that defining anticompetitive exclusionary conduct is a matter of legal policy, not just

[67] Professor Salop argues that merger analysis often entails market-wide balancing and that the burdens of such balancing are not insurmountable. *See* Salop, *Consumer Welfare Effect, supra* note 29, at 365–66. The premise is not correct as a general matter because mergers usually do not involve issues of exclusion. Moreover, the conclusion does not follow in any event. Mergers are extraordinary events for which, Congress decided in the Hart-Scott-Rodino Antitrust Improvements Act, 15 U.S.C. § 18a, substantial prior investigation is warranted. Sections 1 and 2 of the Sherman Act, which are the subject of this article, govern the everyday conduct of businesses. Minimizing transaction and compliance costs is important to furthering the objectives of the Sherman Act.

economic theory, the arguments for the sacrifice test seem compelling. The sacrifice test provides a sound, workable, and generally applicable normative framework for determining the lawfulness of exclusionary conduct.

III. EXCLUSIVE DEALING IN PARTICULAR

As noted above, the salient attribute of an exclusive dealing agreement is that one firm (e.g., a distributor) agrees not to deal with competitors of its exclusive trading partner (e.g., a manufacturer). The agreement could injure competition if it denies competing manufacturers needed distribution inputs. In itself, not dealing with the excluded manufacturers is likely to be costly to the distributor because it means fewer sales for the distributor.[68] That is presumably always true when the distributor has entered into an exclusive dealing agreement with the favored manufacturer, and it could be true even when it makes a unilateral decision not to deal with the competing manufacturers.[69] The analysis is largely the same in either case, but for simplicity I will address only the case of an actual exclusive dealing agreement in which the distributor promises the manufacturer that it will not deal with the manufacturer's competitors.

A. Basic Principles

The analysis starts with the fact that the distributor's agreement not to deal with competing manufacturers imposes a cost on the distributor. The distributor will willingly bear that cost only if it will, as a result, receive some compensating benefit. The critical question is, where does the benefit come from?

The promise of dealing exclusively with the manufacturer might, of course, be more efficient than the alternatives available to the distributor. For example, an exclusive dealing requirement can ensure the distributor's loyalty and prevent free riding and, thus, might expand output. If the exclusive dealing promise is more efficient than the alternatives, the

[68] To be more precise, if the distributor would have dealt with other manufacturers but for the exclusive dealing agreement, it can be presumed that not dealing with those manufacturers imposed at least an opportunity cost on the distributor. If the distributor would not have dealt with the excluded manufacturers anyway, then the exclusive dealing agreement would not injure competition.

[69] The term "unilateral" is used here in the antitrust sense to connote conduct that is not taken pursuant to an agreement. Unilateral exclusivity that is induced by a manufacturer that, for example, announces that it will not deal with any distributor that deals with its competitors is likely to be costly to the distributor. *See generally* Lorain Journal v. United States, 342 U.S. 1 (1951).

transaction makes sense and is easy to explain. The distributor, in effect, conducts an auction. If the exclusive dealing arrangement is the most efficient of the alternatives available to the distributor, he can be induced to enter into the agreement by being permitted to share in the value created by the efficient transaction.

But what if the promise is not efficiency-enhancing? What if, for example, the efficiency-enhancing benefits from the prevention of free riding are less than the benefits that the distributor could realize from distributing products manufactured by others, either in addition to or instead of those of the favored manufacturer? If the value created by transactions with other manufacturers would exceed the value generated by the efficiency-enhancing benefits of the exclusive dealing agreement, one would expect the market (and the distributor) to reject the exclusionary promise and to choose the other, more efficient transactions instead.

The efficiency of an exclusive dealing agreement might, of course, depend on the number of such agreements. It might be very important to the manufacturer to have one or a few exclusive distributors in an area motivated to promote its products. After a point, however, the incremental sales induced by additional exclusive distributors might not justify the compensation needed to induce such distributors not to deal with rival manufacturers. In other words, some but not all of a manufacturer's exclusive dealing arrangements might be efficient.

Unfortunately, the market does not always choose the most efficient arrangement. Exclusionary agreements that are less efficient than the alternatives can happen in either of two circumstances. The first is a mistake, which the market presumably will correct.

The second, and more important, circumstance is this: If the manufacturer expects to gain or preserve market power by excluding its rivals, it could induce the distributors to go along with the exclusionary scheme by sharing with them a portion of the anticipated supracompetitive profits. The sharing of supracompetitive profits could take the form simply of a high price paid for distribution services, or it could be part of the consideration paid to the distributors in more subtle or complex commercial arrangements.

If the supracompetitive profits available to the distributor are large enough, the distributor might agree to the restraint, even if it is inefficient. In other words, even if the manufacturer cannot induce the distributor to make the exclusionary promise by sharing efficient fruits of the transaction, it can do so by sharing a portion of the supracompetitive profits created or preserved by the restraint. The additional market

power enables the manufacturer to recoup its investment in the otherwise inefficient restraint, including the consideration it must pay to the distributor.

Some courts have suggested that exclusionary contracts of short duration cannot be unlawful because the excluded rival(s) are able to bid frequently for the patronage of the input supplier and can, thus, prevent anticompetitive harm.[70] But if one manufacturer is uniquely able to use the exclusive agreement to gain or maintain market power (because, for example, it already has a large market share), it would be uniquely able to share supracompetitive profits with the distributor. In that event, it would be able to retain the exclusive arrangement regardless of the duration of its contract with the distributor or, indeed, without entering into any cognizable agreement at all.[71]

It should be apparent that this discussion has, in substance, entailed application of the sacrifice principle to exclusive dealing agreements. The analysis asks, first, whether the agreement makes sense because (without regard to resulting market power) it creates efficiency benefits in excess of its costs (including the opportunity cost to the distributor of not dealing with others, which the manufacturer has to defray); if so, it is lawful. If not, the analysis asks whether the agreement has created or is likely to create market power for the manufacturer; if so (and assuming there is some mechanism for the manufacturer to share the fruits of that market power with the distributor), it concludes that the agreement was not profitable but for the exclusion of rivals and the resulting market power. In that event, it is anticompetitive.

One attribute of the sacrifice test in this context warrants mention: When applied to exclusive dealing and other vertical agreements, the sacrifice test is similar to a static market-wide balancing test. Because the distributor, in effect, conducts an auction, it internalizes (as an opportunity cost) the cost to the excluded manufacturers of not being able to deal with the distributor because the excluded manufacturers are presumably willing to pay up to that much to deal with the distributor. In order to induce the distributor not to deal with its rivals, the successful manufacturer has to outbid the rivals and, therefore, will itself internalize the cost to the rivals of the exclusivity.[72] If the exclusivity is profitable

[70] *E.g.*, Paddock Publ'ns Co. v. Chicago Tribune Co., 103 F.3d 42, 47 (7th Cir. 1996); Roland Mach. Co. v. Dresser Indus., 749 F.2d 380, 394–95 (7th Cir. 1984).

[71] *See Lorain Journal*, 342 U.S. at 143; United States v. Dentsply Int'l, Inc., 399 F.3d 181 (3d Cir. 2005).

[72] It is in this context that the duration of the exclusive dealing agreement might matter. Long-term agreements could interfere with the internalization of the costs imposed on rival manufacturers if (1) the exclusive dealing agreement was entered into before the

to the manufacturer without regard to subsequent recoupment (in other words, if it passes the sacrifice test), it would mean that the efficiencies generated by the exclusive dealing exceeded the reduction in producer surplus of the competing manufacturers caused by the exclusive dealing. To the extent that the sacrifice test in this way indirectly takes into account the impact of the conduct on the manufacturer's rivals, it has some of the properties of a market-wide balancing test.[73] It is not, however, identical to any such test.[74]

B. The Basic Principles Applied

The analysis could stop here. But, because the argument in favor of the sacrifice test is largely a policy argument rooted in its relative ease of application, it is worth inquiring whether the test is sufficiently easy to administer when applied to exclusive dealing agreements.

The answer is not obvious. The problem is that it is often difficult to measure efficiency benefits and market power effects from exclusive dealing agreements. It is, therefore, worthwhile to consider possible shortcuts to facilitate practical application of these general principles. The enforcement agencies and courts might ask the following analytically distinct questions when assessing exclusive dealing agreements:

(1) *Are the exclusive dealing provisions in the agreements exclusionary—that is, do those provisions exclude rivals from the market or materially diminish their competitive efficacy by raising their costs or denying them needed inputs?* If not, they are harmless and should be lawful.

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rival manufacturers existed or were aware of its implications for them and (2) rivals are for some reason unable to attempt to induce the distributor to buy its way out of the exclusive dealing agreement. Thus, under some circumstances in the presence of long-term agreements, an exclusive dealing arrangement that is actually inefficient might be deemed not to be anticompetitive under the sacrifice test because the manufacturer will be able to utilize the existing contracts to keep its costs low. This is, however, largely a matter of contractual opportunism.

[73] In theory, of course, the manufacturer might also internalize the costs to distributors of any market power it might ultimately gain from the exclusive dealing, and the sacrifice test might, thus, be similar to even a dynamic market-wide balancing test. That would be true if the distributors took into account the long-run costs of monopoly recoupment in determining the consideration they would require before agreeing to the exclusive dealing arrangement. In practice, however, this will often not be the case because of (1) temporal cognitive limitations, (2) other incentives for distributors to ignore long-run costs (e.g., agency problem), and (3) collective action or large-number coordination problems that might cause each individual distributor to go for the short-term gain of exclusive dealing on the ground that, if it does not, other distributors will and it will suffer the long-term loss anyhow.

[74] That is because the sacrifice test in this context takes into account diminished profits of the manufacturer's rivals, not the impact of the conduct on consumer welfare.

This should be a meaningful hurdle for any complainant.[75] The requirement would seem in general to have three components: (1) the distributor or other input supplier would have dealt with the manufacturer's rivals but for the exclusive dealing provision; (2) competitively meaningful rivals cannot readily avoid the cost increase resulting from the exclusive dealing provisions by turning to other input suppliers or alternatives to the foreclosed input; and (3) the input foreclosure or cost increase has a material impact on the ability of those rivals to do business in the market in which they compete with the manufacturer.[76]

The exclusionary effect might depend, not just on the characteristics of the individual agreements, but on the aggregate impact of all such agreements used by the manufacturer. A set of exclusive agreements with numerous distributors, for example, might be exclusionary even though no one of the agreements by itself would have a material impact on the manufacturer's rivals.[77]

(2) *If the agreements are exclusionary, are there plausible efficiencies?* If not, it might be appropriate simply to find the agreements to be unlawful without further inquiry.[78]

This suggestion entails risks. A legal regime that would require a firm to justify its conduct whenever rivals are harmed could subject all types of business conduct to antitrust second guessing. If transaction costs are substantial or if courts cannot be counted on to get the determination of plausible efficiencies right, such a regime would invite meritless law-

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[75] Much of the case law dealing with exclusionary vertical agreements has concerned the issue of exclusionary effects, but the cases often deal with the issue only indirectly. For example, tie-in cases often turn on whether the defendant has market power in the tying product, and exclusive dealing cases often turn on the percentage of input suppliers that are subject to the exclusive dealing restrictions. Tying product market power and percentage foreclosure of input suppliers are, to be sure, factors relevant to predicting exclusionary effects, but they do not measure those effects directly. It would be preferable for the enforcement agencies to focus explicitly on the exclusion of rivals, both to keep in mind the purpose of the kinds of proxies that are often addressed in the cases and so that direct evidence of exclusion will not be overlooked. *Cf.* Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2, 16, 21 n.34 (1984) (O'Connor, J., concurring).

[76] The issue here is exclusion of rivals, regardless whether the manufacturer itself has or is likely to gain market power. The two are likely to coincide in most cases, but there are differences. First, the exclusion test is less rigorous, and easier to apply, than the market power test because it focuses on rivals (competitors) rather than competition in the market as a whole. Second, the beneficiary of an exclusionary agreement might not have market power in the same market, especially if it uses the inputs in multiple markets.

[77] *See generally* Cont'l Ore Co. v. Union Carbide & Carbon Co., 370 U.S. 690 (1962).

[78] This is similar to part (2a) of Professor Hovenkamp's definition of exclusionary conduct. *See supra* text accompanying note 7.

suits by strike-suiters and by ineffective competitors seeking to insulate themselves from competition by more-efficient or innovative rivals.[79]

But there are countervailing factors that make such a "quick look" approach worth considering. In the first place, the inquiry proposed would apply only to agreements that actually exclude rivals. Such agreements impose real costs on rivals and their customers. If that is all that they do, they are harmful to the economy.

Moreover, the suggested efficiency screen is very modest. While it would require more than just lawyers' arguments—presumably, some factual demonstration that efficiencies are reasonably to be expected under the circumstances—it would not require proof of those efficiencies or of their magnitude. In most cases, the defendant should be able to meet its initial burden by articulating and beginning to document a coherent story of plausible efficiencies that appears consistent with the readily available facts.

Those who would prefer a market power screen observe that exclusive dealing agreements often have efficiencies and, indeed, that exclusion and efficiency are often two sides of the same coin. To the extent that exclusionary agreements in one form or another give the manufacturer exclusive or preferential access to input suppliers, they are, for example, likely to generate efficiencies from supplier loyalty, elimination of free riding, or economies of scale. But it is precisely because efficiencies are so common and easy to identify that it might be appropriate to condemn naked exclusionary agreements for which no plausible efficiency can be demonstrated.

The alternative would be to jump immediately to an examination of market power. While a market power requirement would make theoretical sense, it might not make practical sense.[80] A market power screen not only would impose litigation costs and uncertainty but also would create a powerful default rule. Difficulties of proof mean that at least some instances of market power would go unproven and, thus, that anticompetitive agreements would escape antitrust condemnation. There might be no need to bear the cost of such false negatives with

[79] *See* Krattenmaker & Salop, *supra* note 5, at 247–48 (imposing antitrust liability without proof of market power "would permit rivals routinely to complain of efficient exclusionary practices"); Frank Easterbrook, *The Limits of Antitrust*, 63 TEX. L. REV. 1, 21 (1984) ("When there is no market power, the market is better than the judicial process in discriminating the beneficial [conduct] from the detrimental.").

[80] *See generally* Timothy Muris, *A Response to Professor Goldberg: An Anticompetitive Restraint by Any Other Name*, 1 REV. L. & ECON. 65 (2005) (arguing in the context of a horizontal restraint that, because of "the transactions cost issues of legal rulemaking," it is "unnecessary and unwise" to have a market power screen in all cases).

respect to exclusionary agreements for which there is no plausible efficiency justification. There appears to be room in the cases for such an approach.[81]

(3) *Are the exclusive dealing provisions in the agreements likely to create or preserve market power for the manufacturer?*[82] If "quick look" condemnation is permitted, this question would be reached only if plausible efficiencies are found. Otherwise, it would be the second step in the analysis.

If market power is not likely, the agreements should be lawful because, absent such market power, the compensation needed to induce the distributors to agree obviously would not consist of a share of supracompetitive profits created by the agreements. The distributor's participation, and the existence of the agreement, could, thus, be presumed to be the result of the efficiencies created by the agreement. In that event, the law is willing to tolerate the exclusionary effects because it has long been clear that antitrust "protects competition, not competitors."[83]

The focus here is not on whether the manufacturer has market power, but rather on whether the exclusionary agreement is likely to create or preserve market power for the manufacturer. It is only such additional or incremental market power that could explain the willingness of the manufacturer and the distributors to enter into an inefficient agreement.[84]

Market power effects would, of course, be most likely if rival manufacturers were forced to exit the market. But exit is not a necessary condition. Market power could be created even if the exclusive dealing agreements

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[81] *See generally* California Dental Ass'n v. FTC, 526 U.S. 756, 781 (1999) (conduct should be assessed by an "enquiry meet for the case"); FTC v. Indiana Fed'n of Dentists, 476 U.S. 447, 457 (1986) ("[a]s a matter of law, the absence of proof of market power does not justify a naked restriction on price or output" and such a restriction "requires some competitive justifications") (quoting NCAA v. Bd. of Regents of the Univ. of Okla., 468 U.S. 85, 109–10 (1984)); PolyGram Holdings, Inc. v. FTC, 416 F.3d 29 (D.C. Cir. 2005). While the cited cases concerned horizontal restraints, the language and analysis could encompass exclusionary vertical agreements as well. *See generally* 7 PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW § 1512 (2d ed. 2003).

[82] This is in substance part (1) of Professor Hovenkamp's definition of exclusionary conduct. *See supra* text accompanying note 7.

[83] *See* Brooke Group Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209, 224 (1993) ("It is axiomatic that the antitrust laws were passed for 'the protection of competition, not competitors.'") (quoting Brown Shoe Co. v. United States, 370 U.S. 294, 320 (1962)).

[84] The simple term "market power" glosses over a number of issues that are not addressed in this article. These include the distinction between the traditional notion of market power as the power to raise price above marginal cost and notions of exclusionary market power as the power to exclude rivals and, thereby, prevent cost and price reductions, and the circumstances in which a firm may be unable to increase its profits by excluding rival suppliers of complements to a product over which it already has a monopoly.

do no more than increase rivals' costs and thereby materially impair their ability to constrain or prevent the exercise of market power by the favored manufacturer. And, as in all such inquiries, the comparison is with the hypothetical but-for world (i.e., the world assuming no exclusive dealing agreement), not the status quo ante.

(4) *If market power is implicated, are some or all of the exclusionary aspects of the agreements not reasonably necessary to achieve the efficiencies?*[85] For example, has the monopoly manufacturer obtained broader exclusivity agreements, or entered into exclusive agreements with more distributors, than necessary to realize the efficiencies? If so, the unnecessary agreements (or the unnecessary part of the agreements) should be illegal.[86]

C. The Hardest Case

These four questions do not resolve all cases. What is left is the hardest case—exclusive dealing agreements that simultaneously (1) exclude or significantly harm rivals, (2) are likely to create or preserve market power for the manufacturer, and (3) create genuine efficiencies.[87]

Market power, while a necessary condition of illegality, should not be sufficient to condemn such exclusionary agreements because they might be the most efficient form of distribution, even if used by a monopolist. In that event, the market power gained by the manufacturer can be said to be the result of its "superior skill, foresight and industry" and would not provide a sufficient basis for condemning the agreement.

By the same token, the arrangements should not be deemed to be lawful simply because they have some efficiency properties. To see why this is so, consider again the metaphor of the distributor conducting an auction. The distributor chooses between the exclusionary agreement and all the other alternatives available from the manufacturer or its competitors. One cannot, however, infer from the facts that the exclusionary arrangement has some efficiency benefits and that it won the auction that the distributor agreed to the arrangement because it was more efficient than the alternatives. Other arrangements may, on bal-

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[85] This inquiry is, in substance, the same as part (2b) of Professor Hovenkamp's definition of exclusionary conduct. *See supra* text accompanying note 7.

[86] This is simply the overbreadth or more-restrictive-than-necessary principle that has been a fundamental part of antitrust law since Justice Taft's opinion in *United States v. Addyston Pipe & Steel Co.*, 85 F. 271 (6th Cir. 1898), *aff'd*, 175 U.S. 211 (1899). *See also* Rothery Storage & Van Co. v. Atlas Van Lines, Inc., 792 F.2d 210, 224 (D.C. Cir. 1986) (Bork, J.) ("If it is so broad that part of the restraint suppresses competition without creating efficiency, the restraint is, to that extent, not ancillary.").

[87] This appears to be the case contemplated by part (2c) of Professor Hovenkamp's definition of exclusionary conduct. *See supra* text accompanying note 7.

ance, have been even more efficient and might have won the auction but for the inducements offered by the prospect of sharing the manufacturer's supracompetitive profits.[88]

Unfortunately, the antitrust decision maker usually cannot directly observe the payment of supracompetitive profits to distributors. Sometimes, the payments are disguised in complicated arrangements; in other instances, the distributors might receive a simple form of consideration, such as a high price, that could reflect either efficiency or market power.

Because the decision maker ordinarily will be unable to infer from the payments to the distributor whether the agreement is anticompetitive, he will have to apply the sacrifice test directly. To do so, he should try to determine whether the efficiency benefits created by the exclusive dealing agreement exceed either (1) the additional consideration the manufacturer had to pay the distributor to induce him to agree to exclusivity or (2) the costs to the distributor of not dealing with rival manufacturers, whichever can be more easily determined. In making this determination, the decision maker should ignore any prospect for supracompetitive recoupment after rivals have been weakened or exited. If the efficiency benefits exceed the costs, the exclusive dealing agreement entails no sacrifice for the manufacturer or the distributor and is, therefore, lawful. If not, and if the agreement appears to have created (additional) market power for the manufacturer or a dangerous probability thereof, it is anticompetitive.

IV. CONCLUSION

Exclusionary conduct poses a difficult challenge for the antitrust laws. The problem arises principally because such conduct often provides both benefits and harms and assessing them in comprehensive case-by-case balancing is not practical. More arbitrary or intuitive decision rules would save transaction costs, but only at the price of bad outcomes and undermining the deterrence function of the law. A set of rules that

[88] Professor Elhauge would condemn conduct that furthers "monopoly power . . . by impairing rival efficiency whether or not it enhances monopolist efficiency," but not conduct that creates monopoly power "only if the monopolist has improved its own efficiency." Elhauge, *supra* note 45, at 253. It is not entirely clear what that test means. It might be identical in substance to the test proposed here because, like the sacrifice test, it would not condemn conduct that harms rivals and creates market power as a necessary ("only if") byproduct of an improvement in the defendant's efficiency. But, for the reasons explained in text, the Elhauge test would be more prone than the sacrifice test to false negatives if it would treat conduct as improving the monopolist's "efficiency" whenever it had any efficiency benefits, regardless whether those benefits were worth the costs to the defendant (i.e., would be profitable or would make business sense) but for the exclusion of rivals and the resulting market power.

treated different types of exclusionary conduct differently would increase transaction costs and distort market behavior. The sacrifice principle might, thus, be the best of the alternatives—a workable principle that comports with widely held norms about "competition on the merits" and is likely to achieve sound results in most cases.