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The Raising Rivals' Cost Foreclosure Paradigm, Conditional Pricing Practices, and the Flawed Incremental Price-Cost Test

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THE RAISING RIVALS' COST FORECLOSURE PARADIGM, CONDITIONAL PRICING PRACTICES, AND THE FLAWED INCREMENTAL PRICE-COST TEST

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Myriad types of business conduct can involve exclusionary conduct that can harm consumers. This conduct includes exclusive dealing, tying, predatory pricing, vertical mergers, most favored nations contracts, refusals to deal, and resale price maintenance, among others. There are two overarching law and economics paradigms for analyzing exclusionary conduct in antitrust—predatory pricing and raising rivals' costs (RRC) foreclosure.[1] This raises the question of which paradigm is better suited for addressing various types of allegations of anticompetitive exclusion.

Sometimes the choice of paradigm is obvious. When U.S. Tobacco ripped out the displays of its competitor, that conduct clearly fit the RRC foreclosure paradigm.[2] The RRC foreclosure paradigm similarly would apply if U.S. Tobacco had demanded exclusive dealing instead. When Continental Baking offered very low prices for pies in Salt Lake City, that conduct fit the predatory pricing paradigm.[3] However, other conduct may not be so obvious.

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[1] For earlier discussions of the two paradigms, see Steven C. Salop, *Exclusionary Conduct, Effect on Consumers, and the Flawed Profit-Sacrifice Standard*, 73 ANTITRUST L.J. 311, 315–18 (2006) [hereinafter Salop, *Exclusionary Conduct*]. *See also* Susan A. Creighton et al., *Cheap Exclusion*, 72 ANTITRUST L.J. 975 (2005).

[2] *See* Conwood Co., L.P v. U.S. Tobacco Co., 290 F.3d 768, 776–79 (6th Cir. 2002).

[3] *See* Utah Pie Co. v. Cont'l Baking, 386 U.S. 685, 697 (1967). Any doubts left by *Utah Pie* that the pricing need not be predatory were resolved by *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 221–22 (1993), which clarified that the same predatory pricing threshold applied to both monopoly and price discrimination cases.

Some types of conduct might appear by analogy to fit into both paradigms.[4] In particular, consider conditional pricing practices (CPPs), the focus of this article. CPPs include pricing that is conditioned on exclusivity or some other type of favoritism in a customer's purchases or input supplier's sales. CPPs include payments for exclusivity, loyalty discounts (or premiums in the case of input purchases), and bundle discounts or payments. On the one hand, predatory pricing might seem to apply because the conduct involves lower prices. On the other hand, RRC foreclosure might seem to apply because the conduct is analogous to exclusive dealing and tying and the condition often creates significant foreclosure and near-exclusivity. However, unlike the "explicit coercion" in these contracts, CPPs induce the near-exclusivity with the "promise" of lower prices or payments that are "conditional" on the customer's willingness to forgo some purchases from competitors. (Or, stated equivalently, the CPPs involve "threats" of higher prices if the customer does not satisfy the condition.)

The choice of paradigm has important implications for the legal analysis. While the predatory pricing paradigm would attack the "level" of the prices under the *Brooke Group* standard, the RRC foreclosure paradigm would attack the "condition" placed on the prices under the rule of reason.

This article summarizes the two antitrust paradigms for exclusionary conduct and their properties in order to understand which legal framework is more appropriate for analyzing competitive effects under particular fact situations. The article then applies the analysis to CPPs.[5]

The analysis in this article suggests that CPPs generally are better characterized as belonging to the RRC foreclosure paradigm. They should be analyzed like near-exclusivity contracts, not as predatory pricing.[6] The proper focus should be placed on the magnitude of the foreclosure and possible consumer harm, rather than whether or not the firm is pricing below some measure of costs. Economic analysis also implies that whether there is substantial foreclosure should be gauged by the impact on the competitors, including their costs, output, and ability to enter or expand. The fraction of customers or suppliers foreclosed may be relevant evidence, but it is not determinative.

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[4] Sean P. Gates, *Antitrust by Analogy: Developing Rules for Loyalty Discounts and Bundled Discounts*, 79 ANTITRUST L.J. 99, 122–24, 129–33 (2013).

[5] CPPs may be used to achieve, maintain or enhance market or monopoly power. They may be subject either to Section 1 or Section 2, depending on whether they involve contracts. They also may be subject to Section 5 of the Federal Trade Commission Act. Whichever standard is applied, however, the economic analysis and basic antitrust concerns are the same. Competitive effects analysis is similar under each of these statutes, and a common rule of reason structure can be applied to adjudicate cases involving these restraints.

[6] This was the approach of the Third Circuit in *ZF Meritor, LLC v. Eaton Corp.*, 696 F.3d 254, 281 (3d Cir. 2012).

The main focus of the entire analysis should be placed on the impact on consumers in the output market. Traditional rule of reason and antitrust injury analyses capture anticompetitive, consumer harm from CPPs better and more consistently than a price-cost test.

While the incremental price-cost test might seem appealing as a bright line standard, it actually is fundamentally flawed. First, it is not easy to implement, raising administrability concerns. Second, the test is not reliable, raising error concerns. Passing the test does not rule out anticompetitive exclusion and failing the test does not prove anticompetitive exclusion, either most or all of the time and whether or not the entrant is equally efficient. Nor is it the case that only equally or more efficient entrants have procompetitive effects on the market. The test also fails to provide reliable evidence of antitrust injury. As a result, using the test also would not point towards optimal deterrence. Instead, courts should rely on the RRC foreclosure analysis and the facts relevant to that analysis to evaluate harm to competition and consumers under the rule of reason. At the same time, to show antitrust injury, the plaintiff should be prepared to explain why it failed to obtain sufficient distribution by counterbidding or how its costs were raised by the exclusionary condition rather than by the defendant's lower price.

However, the general appropriateness of the RRC foreclosure paradigm does not mean that the predatory pricing paradigm is never relevant. CPPs can form the basis of a predatory pricing strategy. While the dominant firm's *average* prices (including any discounts) may remain above its costs, the condition may lead to its *incremental* prices falling below its costs in the relevant range of contestable sales.[7] In this situation, the conditional pricing may raise predatory pricing concerns under *Brooke Group*, even if the RRC foreclosure analysis does not indicate harm to competition.

It follows that the plaintiff could choose to allege a CPP strategy as predatory *conditional* pricing. Extending the *Brooke Group* analysis to predatory conditional pricing, the appropriate test would be the incremental price-cost test.[8] While this incremental price-cost test may still lead to false negative or false positive errors, it is the natural price-cost test to use under the reasoning of *Brooke Group*, and it would lead to fewer errors than would the use of average discounted prices.

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[7] Cascade Health Sols. v. PeaceHealth, 515 F.3d 883, 901 (9th Cir. 2008).

[8] *See id.* (distinguishing *Brooke Group*, 509 U.S. at 222, 224 (which did not deal with discounting involving bundling), and following *LePage's Inc. v. 3M,* 324 F.3d 141 (3d Cir. 2003) (reargued en banc)).

This article focuses on monopoly and dominant firm markets, where the CPPs raise the greatest concerns.[9] CPPs can allow non-dominant firms that lack market power to achieve that power, particularly where parallel exclusion by multiple firms can lead to anticompetitive coordination. But, in this market structure, competition from non-excluded firms, including substitute products, may prevent the achievement and exercise of market power and consumer harm. Procompetitive efficiency benefits also carry more weight if the excluding firm is not dominant.[10]

The remainder of this article is organized as follows. Part I explains and compares the predatory pricing and RRC foreclosure paradigms for exclusionary conduct. Part II explains the input and customer foreclosure mechanisms that can occur for exclusive dealing, CPPs, and other exclusionary conduct, and provides examples from the case law. Part III applies this analysis to CPPs and explains why the RRC foreclosure paradigm generally provides a better analytic fit than the predatory pricing paradigm. Part IV explains why the use of an incremental price-cost test should not be used as a threshold test for either the plaintiff or the defendant under the RRC foreclosure paradigm. Part V analyzes predatory conditional pricing and briefly applies that analysis to the recent *Eisai* case.[11] Part VI concludes and briefly discusses counseling concerns.

I. ANALYZING THE TWO EXCLUSIONARY CONDUCT PARADIGMS

The two general paradigms of exclusionary conduct—predatory pricing and RRC foreclosure[12]—focus on different aspects of exclusionary conduct and take very different views of the relevant antitrust risks. In order to understand the law and economics of exclusionary conduct, and CPPs in particular, it is necessary to distinguish between these two paradigms.

A. THE PREDATORY PRICING PARADIGM

Predatory pricing is one paradigmatic type of exclusionary conduct. In the simplest rendition, predatory pricing involves an across-the-board reduction in prices intended to permit a deep-pocket defendant to win a war of attrition

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[9] Because the issues are very similar in monopoly and dominant firm markets, the two terms will be used more or less interchangeably in this article.

[10] This analysis comes with the usual caveat that even where the conduct by a competitive firm is determined to be procompetitive, that showing alone does not imply that the same conduct by a dominant firm would be procompetitive.

[11] Eisai, Inc. v. Sanofi Aventis U.S., LLC, 821 F.3d 394 (3d Cir. 2016).

[12] For a general analysis, see Thomas G. Krattenmaker & Steven C. Salop, *Anticompetitive Exclusion: Raising Rivals' Costs to Gain Power over Price*, 96 YALE L.J. 209 (1986); *see also* Salop, *Exclusionary Conduct*, *supra* note 1.

against a less well-financed entrant or small competitor.[13] The reduction in prices during the predatory phase of a predatory pricing strategy involves short-term profit-sacrifice or actual losses by the predator. These losses then might be recovered by supracompetitive prices during the recoupment period after the entrant exits from the market or is disciplined to raise price. Predatory pricing is a risky investment in exclusion because the predator sacrifices profits in the short-run but may be unable to recoup them in the long run. The predator may blink first in light of the fact that its profit-sacrifice (relative to more accommodative pricing) exceeds the losses borne by the entrant, as a result of the predator's higher market share. The entrant may merely reduce its output to conserve resources and wait out the attack. The entrant also may obtain the necessary financing to withstand the attack for a significant period of time and eliminate the credibility of further predatory pricing threats. Either way, the entrant may not exit. And, even if the entrant does exit, subsequent re-entry by either the entrant or competition from others may prevent the predator from recouping its profit sacrifice or losses.[14] This reasoning led the Court in *Matsushita* to conclude that "predatory pricing schemes are rarely tried and even more rarely successful."[15]

The impact on consumer welfare from such "deep-pocket" predatory pricing also is unclear, according to the paradigm.[16] Consumers benefit from the lower prices during the predatory phase. These benefits potentially could exceed the harms suffered by consumers during the recoupment phase, particularly if the predatory pricing period continues for a long time.[17] Moreover, there may never be a recoupment phase. Failed predatory pricing is a gift to consumers.[18]

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[13] In addition to this "war of attrition" theory, predatory pricing may be motivated by a desire of the predator to gain a reputation for predation that will deter future entrants, in addition to any benefits from driving the targeted entrant out of the market. Christopher R. Leslie, *Predatory Pricing and Recoupment*, 113 COLUM. L. REV. 1695, 1728–32 (2013).

[14] However, the new competitors might be deterred by the fear of a predatory attack by a firm that has established a reputation for predation, which would increase the likelihood of recoupment. *See, e.g.*, Patrick Bolton, Joseph F. Brodley & Michael H. Riordan, *Predatory Pricing: Strategic Theory and Legal Policy*, 88 GEO. L.J. 2239 (2000).

[15] Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 589 (1986).

[16] *See, e.g.*, John McGee, *Predatory Pricing: The* Standard Oil (N.J.) *Case*, 1 J.L. & ECON. 137 (1958). Some recent economics literature has argued that Standard Oil actually did engage in predatory pricing, contrary to McGee's claims. *See* James A. Dalton & Louis Esposito, *Standard Oil And Predatory Pricing: Myth Paralleling Fact*, 38 REV. INDUS. ORG. 245 (2011); James A. Dalton & Louis Esposito, *Predatory Price Cutting and* Standard Oil*: A Re-Examination of the Trial Record*, 22 RES. L. & ECON. 155 (2007). For other examples of successful predatory pricing, see Jonathan Baker, *Exclusion as a Core Competition Concern*, 78 ANTITRUST L.J. 527, 542–43 & n.76 (2013), and the references cited therein.

[17] *See, e.g.*, *Matsushita*, 475 U.S. at 592–93.

[18] Frank H. Easterbrook, *The Limits of Antitrust*, 63 TEX. L. REV. 1, 26 (1984).

Based on this reasoning, the Supreme Court has taken a very light-handed approach to allegations of predatory pricing. Price cuts are considered presumptively procompetitive. Despite the fact that information about the defendant's prices and costs are in the hands of the defendant, the burden of production is placed on the plaintiff to show that there is below-cost pricing.[19] The plaintiff also must show a high likelihood of recoupment, including whether the expected profits during the recoupment period likely would exceed the losses during the predatory period, taking into account the time value of money.[20] The recoupment analysis also may serve as a basis for evaluating whether or not there is consumer welfare harm, or as a proxy for that analysis. While not discussed in *Brooke Group*, the defendant can attempt to justify prices that are below standard measures of cost as legitimate introductory discounts, experience curve pricing, procompetitive pricing of demand complements, sales into a two-sided market, or excess capacity. In these ways, the predatory pricing paradigm is very defendant-friendly.

B. THE RRC FORECLOSURE PARADIGM

The modern approach to foreclosure embodied in the RRC foreclosure paradigm is very different. The RRC foreclosure paradigm generally describes exclusionary conduct that totally or partially "forecloses" competitors from access either to critical inputs or customers, with the effect of causing them to raise their prices or reduce their output, thereby allowing the excluding firm to profit by setting a supracompetitive output price, with the effect of harming consumers. A rule of reason analysis, which is commonly applied to exclusivity arrangements and other exclusionary conduct with its burden-shifting test, is entirely consistent with the RRC foreclosure paradigm.[21]

As explained in this article, RRC foreclosure conduct is more likely to be attempted and more likely to harm consumers than is predatory pricing. These differences imply a greater policy concern with false negatives than for preda-

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[19] Brooke Grp. Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209, 222 (1993).

[20] *Id.* at 224–25.

[21] For example, this was the basic approach set out by Justice O'Connor in her *Jefferson Parish* concurrence. Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2, 44–46 (1984) (O'Connor, J., concurring). Some commentators have suggested that the consumer welfare harm standard be replaced or supplemented with a requirement that the defendant's conduct involves "profit-sacrifice" or makes "no economic sense" absent anticompetitive effects. *See, e.g.*, Gregory J. Werden, *Identifying Exclusionary Conduct Under Section 2: The "No Economic Sense" Test*, 73 ANTITRUST L.J. 413 (2006); A. Douglas Melamed, *Exclusive Dealing Agreements and Other Exclusionary Conduct—Are There Unifying Principles?*, 73 ANTITRUST L.J. 435 (2006). For an explication of the flaws in this standard, see Salop, *Exclusionary Conduct*, *supra* note 1. For one recent version of the burden-shifting rule of reason test, see Agnew v. NCAA, 683 F.3d 328, 335–36 (7th Cir. 2012). For a decision-theoretic approach to the role of presumptions and evidentiary standards in the rule of reason, see Steven C. Salop, *The Evolution and Vitality of Merger Presumptions: A Decision-Theoretic Approach*, 80 ANTITRUST L.J. 269 (2015).

tory pricing. As a matter of standard decision theory, these differences imply that antitrust law should take the stronger approach towards conduct that fits within the RRC foreclosure paradigm.

There are several reasons for these heightened concerns. First, unlike the paradigmatic view of predatory pricing, successful RRC foreclosure does not require a risky investment or losses during an initial period that may only be recouped with some probability at some later point in the future. Instead, recoupment often occurs simultaneously with RRC conduct. Thus, it is more likely to succeed, which also means that it is more likely to be attempted.

Second, unlike predatory pricing, successful RRC conduct does not require the exit of rivals, or even the permanent reduction in competitors' production capacity. If the marginal costs of established competitors are raised, those competitors will have the incentive to raise their prices and reduce their output, even if they remain viable. This also means that RRC conduct is more likely to succeed, and therefore, is more likely to be attempted.

Third, unlike paradigmatic predatory pricing, RRC foreclosure conduct is not necessarily more costly to the monopolist than it is to the excluded rivals. Some types of foreclosure would qualify as "cheap exclusion."[22] In the case of competing for the attention of distributors, the rival may have to pay more. A lower cost of foreclosure incurred by the excluding firm means that the conduct is more likely to succeed and, therefore, more likely to be attempted.

Fourth, while RRC exclusionary conduct can entail procompetitive efficiency benefits, those benefits are not inherent, in contrast to the short-term benefits of lower (albeit) predatory prices. There can be "naked" RRC conduct that lacks any valid and cognizable efficiency benefits.[23] This characterization of naked exclusionary conduct was present in a number of cases, including *Lorain Journal*,[24] *JTC Petroleum*,[25] *Conwood*,[26] and *Dentsply*.[27]

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[22] *See* Creighton et al., *supra* note 1.

[23] *Id.*

[24] *Lorain Journal* suggests no cognizable procompetitive rationale for the newspaper's decision to offer only all-or-nothing exclusive contracts to advertisers. Lorain J. Co. v. United States, 342 U.S. 143, 153–55 (1951) (adoption of exclusive advertising policy that deprived competing radio station of advertising revenue).

[25] Judge Richard Posner suggests that the sole purpose of the defendant's denying asphalt to JTC was to prevent it from acting like a maverick competitor and disrupting an alleged price-fixing cartel of the other applicators who also bought asphalt from the suppliers. JTC Petroleum Co. v. Piasa Motor Fuels, Inc., 190 F.3d 775, 778–79 (7th Cir. 1999).

[26] Conwood Co. v. U.S. Tobacco Co., 290 F.3d 768, 788 (6th Cir. 2002) (destroying competitors' display racks).

[27] The *Dentsply* exclusive arrangements, in principle, could have prevented free riding. But the court rejected the procompetitive justifications for the exclusivity. United States v. Dentsply Int'l Inc., 399 F.3d 181, 196–97 (3d Cir. 2005).

Fifth, even if the exclusionary conduct is not a naked restraint, successful RRC foreclosure conduct does not always involve large short-term consumer benefits, unlike paradigmatic predatory pricing. As a result, "net" consumer harm is more likely on balance, even after taking the benefits into account. Thus, there also are greater risks to competition and consumer welfare from RRC foreclosure than from predatory pricing.

At the same time, however, harm to competition and consumers from RRC foreclosure conduct is not inevitable. It should not be subject to a standard of per se illegality. Competitors may not be significantly disadvantaged. In the case of input foreclosure, they may be able to substitute to alternative cost-effective inputs. In the case of customer foreclosure, they may have a sufficient number of alternative customers or distributors to remain a strong competitive constraint. In addition, even if certain targeted rivals are disadvantaged, there may be sufficient competition from other non-excluded competitors or substitute products to prevent the defendant from raising prices in the output market. Thus, in a RRC foreclosure case, the plaintiff must prove "power over price" (i.e., probable harm to competition as well as "raising rivals' costs" (i.e., harm to competitors)).[28]

Moreover, RRC foreclosure conduct may not be naked. Some exclusionary conduct leads to cost savings, product improvements, or creation of procompetitive incentives (e.g., by eliminating free riding). However, the existence of such benefits to the excluding firm does not necessarily mean that consumers gain an overall (i.e., "net") competitive benefit from the conduct. The efficiencies may not be passed on to consumers if the conduct simultaneously raises the costs of competitors or barriers to entry or expansion. Evaluating the likely net impact on consumers involves comparing the likely magnitudes of the opposing forces leading to higher versus lower prices to see which effect on consumers is likely to dominate. This type of balancing of probabilities is carried out in the rule of reason analysis.

C. The Role of Price-Cost Tests in the Two Paradigms

Predatory pricing and RRC foreclosure have very different mechanisms for causing anticompetitive effects. Because of these differences, there is no reason to think that they should be evaluated using the same evidentiary factors or governed by the same liability standards.

The general irrelevance of a price-cost test to RRC conduct can be illustrated and explained with a simple example of a monopolist facing emerging entry by an equally efficient entrant.[29] Assume that the monopolist is initially

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[28] Krattenmaker & Salop, *supra* note 12.

[29] This analysis also can be applied to conditional pricing practices. *See infra* Part IV.

charging a price of $100 and selling 400 units. Assume that the monopolist has marginal costs of $50, so that its profit margin is $50 per unit, and it earns total operating profits of $20,000. Assume that the entrant also has marginal costs of $50 and its entry would cause the market price to fall to $60. Suppose that at a price of $60, the monopolist and the entrant each would sell 300 units, earning a profit margin of $10 per unit (i.e., $60–$50) and total profits of $3,000 each.

In fear of this loss of profits, suppose that the monopolist pays the only suppliers of an essential input not to sell to the entrant. In this case, the entry will fail, the monopoly price will be maintained, and consumers will be harmed, even though the monopolist is charging a price well above its costs. Even taking into account the monopolist's costs of exclusion, it is often likely that the purchase of these exclusionary rights will be profitable.

If the monopolist engages in a bidding war with the entrant over the input suppliers, the monopolist typically has significant bidding advantages. This is because the monopolist is paying to maintain its market power, whereas the entrant is only paying to achieve viability and the lower level of more competitive duopoly profits. This market power effect can fund a higher bid. In addition, an entrant that requires broad distribution or multiple input suppliers could face significant coordination impediments, as discussed in more detail below.[30] Thus, while the distributors would retain the nominal choice of whether to accept the exclusive, the effectiveness of its choice is impeded by the power that the dominant firm has in the bidding process. For these reasons, the law cannot rely on "competition for the contract" to maintain competitive markets.

In the example, the entrant would be willing to bid a fixed payment up to its $3,000 profits to prevent its exclusion. In contrast, the monopolist would be willing to bid to exclude an amount up to $17,000 (i.e., its $20,000 monopoly profits minus its $3,000 duopoly profits if the entrant succeeds). Thus, the monopolist would prevail with a bid of (say) $3,001 and end up with profits of $16,999. This implies that its revenue net of these payments would still remain well above its costs, even after taking the exclusion payment into account. Given its monopoly output of 400 units, the payment amounts to slightly more than $7.50 per unit (i.e., $3,001/400), the monopolist's per unit costs would be slightly more than $57.50 (i.e., $50 + $7.50), while its monopoly price is $100.[31] These examples are extended to more complex situations below.

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[30] *See id.*

[31] If the monopolist is making a payment per unit of its output, then the payments themselves would lead the monopolist to raise its prices.

D. THE CHOICE OF PARADIGM

Certain exclusionary conduct clearly fits into one or the other paradigm. For some conduct, the appropriate paradigm may depend on the exact allegations being made by the plaintiff in its complaint. For example, consider the *Weyerhaeuser* Section 2 case.[32] The plaintiff's complaint involved allegations that the defendant bid up the price of timber input used to produce lumber output.[33] The allegations were analogous to predatory pricing, but applied to a buyer in the input market. The plaintiff claimed that the defendant would cause its sawmill competitors to exit from the market and thereby gain monopsony power in the input market for timber.[34] The Court characterized the conduct as "predatory bidding" for the timber input.[35]

The "predatory bidding" alleged by the plaintiff was designed to gain buy-side market power in the input market for timber.[36] By contrast, the plaintiff did *not* allege that the overbidding was an attempt to raise its competitors' input costs of timber and thereby gain market power in the output market for lumber. This allegation might be called "RRC overbidding." Whereas "predatory bidding" is designed to gain buy-side market power in the input market, "RRC overbidding" is designed to gain sell-side market power in the output market.[37]

The *Weyerhaeuser* Court appeared to accept this key distinction between the two paradigms:

> If the predatory firm's competitors in the input market and the output market are the same, then predatory bidding can also lead to the bidder's acquisition of monopoly power in the output market. In that case, *which does not appear to be present here*, the monopsonist could, under certain market conditions, also recoup its losses by raising output prices to monopolistic levels.[38]

The *Weyerhaeuser* Court applied a price-cost test to predatory bidding on the buy-side. It reversed the lower court decision because there was no showing of short-term losses from below-cost pricing. However, had the plaintiff alleged RRC overbuying instead, the price-cost test would not have been appropriate. The fact that the defendant would be able to achieve or maintain a high, monopoly price for lumber would make it highly unlikely that it would need to bid up to the point where its costs exceed that price. Indeed, the higher

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[32] Weyerhaeuser Co. v. Ross-Simmons Hardwood Lumber Co., 549 U.S. 312 (2007).

[33] *Id.* at 316.

[34] *Id.*

[35] *Id.*

[36] *Id.* at 316–17.

[37] *See* Steven C. Salop, *Anticompetitive Overbuying by Power Buyers*, 72 ANTITRUST L.J. 669 (2005).

[38] *Weyerhaeuser*, 549 U.S. at 321 n.2 (emphasis added).

price of lumber would make it less likely that it would be necessary to bid for timber up to level where its revenue falls short of its costs.

When both types of conduct are present, it would make sense to apply whichever paradigm is appropriate for each type of conduct. The paradigms apply to particular categories of conduct, not to particular defendants. This was the approach in *Microsoft*, where there were allegations of predatory pricing as well as allegations of several types of RRC foreclosure conduct.[39] It would thus be erroneous to artificially limit the antitrust analysis in a case to a single paradigm when the conduct is multifaceted.[40]

For other types of conduct, there may be more controversy about the proper paradigm to apply. This has been the case for CPPs. For example, in *ZF Meritor*, the court applied the RRC foreclosure paradigm. However, the court suggested that it would have applied the predatory pricing paradigm if price was the "clearly predominant mechanism" for exclusion.[41]

In *Eisai*, the Third Circuit reiterated that view.[42] It went on to affirm the district court's decision to grant summary judgment to Sanofi under a rule of reason analysis because Eisai had failed to introduce sufficient evidence of foreclosure and anticompetitive effects.[43] Finally, having rejected Eisai's evidence of foreclosure, the court of appeals concluded that, although the district court had rested its decision to grant summary judgment on application of a

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[39] United States v. Microsoft Corp., 87 F. Supp. 2d 30, 35 (D.D.C. 2000). The district court did not find liability for predatory pricing and the government did not pursue this issue on appeal. United States v. Microsoft Corp., 253 F.3d 34, 58 (D.C. Cir. 2001).

[40] The scholarly analysis of *Standard Oil* case reflects this diversity of allegations. The case has been analyzed as predatory pricing, and controversy reigns over the correctness of that view today. IDA TARBELL, THE HISTORY OF THE STANDARD OIL COMPANY (1904); McGee, *supra* note 16; Dalton & Esposito, *supra* note 16. Benjamin Klein and Elizabeth Granitz subsequently argued that the case actually involved collusive RRC behavior. Benjamin Klein & Elizabeth Granitz, *Monopolization by 'Raising Rivals' Costs': The* Standard Oil *Case,* 39 J.L. ECON. 1 (1996). Klein and Granitz argue that Standard Oil and the railroads cooperated to raise the costs of Standard Oil's rivals and then essentially shared the monopoly profits through rail transport prices. For a related but somewhat different view of the case, see George L. Priest, *Rethinking the Economic Basis of the Standard Oil Refining Monopoly: Dominance Against Competing Cartels*, 85 S. CAL. L. REV. 499 (2012), and the follow-up essay, Benjamin Klein, *The "Hub and Spoke" Conspiracy that Created the Standard Oil Monopoly*, 85 S. CAL. L. REV. 459 (2012). Daniel Crane also argues that there appears to be a RRC element in the case. Daniel A. Crane, *Were Standard Oil's Rebates and Drawbacks Cost Justified*, 85 S. CAL. L. REV. 559 (2012).

[41] ZF Meritor, LLC v. Eaton Corp., 696 F.3d 254, 274 (3d Cir. 2012) ("[W]hen price is the clearly predominant mechanism of exclusion, the price-cost test tells us that, so long as the price is above-cost, the procompetitive justifications for, and the benefits of, lowering prices far outweigh any potential anticompetitive effects."). Part V *infra* discusses fact situations where the conduct can be analyzed as predatory *conditional* pricing under an extended-*Brooke Group* analysis.

[42] Eisai, Inc. v. Sanofi Aventis U.S., LLC, 821 F.3d 394, 409 (3d Cir. 2016).

[43] *Id.* at 407–08.

price-cost test, it was unnecessary to decide whether the price-cost test would apply to Sanofi's conduct.[44]

II. INPUT AND CUSTOMER FORECLOSURE IN THE RRC FORECLOSURE PARADIGM

In applying the RRC foreclosure paradigm to exclusive dealing, CPPs, or other exclusionary conduct under the rule of reason, it is useful to distinguish two foreclosure mechanisms by which exclusionary conduct can harm competition: "input foreclosure" and "customer foreclosure."[45] Proper analysis of CPPs requires an understanding of this distinction, and failure to recognize the distinction can lead to error. For example, sometimes the analysis of CPPs erroneously assumes that only customer foreclosure issues are raised by the conduct. However, in fact, both types of foreclosure are relevant for a rule of reason analysis of conditional pricing practices, as well as for exclusive dealing and tying. The two types of foreclosure can occur separately. But they also can and do occur simultaneously and reinforce one another.

The concurring opinion in *Jefferson Parish* raises both types of concerns: "Exclusive dealing can have adverse economic consequences by allowing one supplier of goods or services unreasonably to deprive other suppliers of a market for their goods, or by allowing one buyer of goods unreasonably to deprive other buyers of a needed source of supply."[46]

Conduct to "deprive other suppliers of a market for their goods" implicates customer foreclosure, whereas conduct to "deprive other buyers of a needed source of supply" corresponds to input foreclosure.[47] The input foreclosure theory explains how exclusives or other conduct can literally raise rivals' costs of a critical input by restricting in some way one or more rivals' access to one or more input suppliers. The customer foreclosure theory explains how exclusives or other exclusionary conduct can reduce rivals' access to some or all of the entire customer base, thereby reducing their output and their ability to expand.

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[44] *Id.* at 409.

[45] For the basic distinction between input and customer foreclosure in the context of vertical mergers, see Michael H. Riordan & Steven C. Salop, *Evaluating Vertical Mergers: A Post-Chicago Approach*, 63 ANTITRUST L.J. 513 (1995). *See also* Eur. Comm'n, *Guidelines on the Assessment of Non-horizontal Mergers Under the Council Regulation on the Control of Concentrations Between Undertakings*, 2008 O.J. (C 265) 6. This article provides a deeper analysis and applies the distinction more broadly than just to vertical mergers.

[46] Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2, 45 (1985).

[47] These two types of foreclosure can occur separately. They can also occur in tandem, for example, when the foreclosure involves distributors. Distributors can be characterized both as customers and as suppliers of distribution services as an input.

Distributors can be viewed as providing a distribution services input rather than as being customers. Foreclosing competitors from a distribution input can force those competitors to use higher cost or less efficient distributors or direct distribution, which can lead the firm in turn to reduce its output.[48] Customer foreclosure can reduce the rivals' capacity to serve a wide customer base, which can lead to output reductions. Customer foreclosure also can cause the foreclosed competitors to suffer higher costs, with attendant effects on output. As a result of these higher costs and reduced outputs, both input and customer foreclosure may cause one or more rivals to fail to expand, exit, or shrink. They also may lead to reduced incentives to invest. Foreclosure conduct also can harm competition by facilitating a "dampening" of competition.[49]

While consumers can still choose to purchase from the disadvantaged rivals, their choice is impeded because of the disadvantages suffered by the rivals from the foreclosure.[50] As a result, the excluding firm may achieve, enhance, or maintain market power in the input or output market.[51] The market power may be unilateral or may involve coordination among downstream firms.[52] In the RRC foreclosure paradigm, the ultimate antitrust concern is not the harm to the rivals, but rather the possible harm to consumers and competitive process from the resulting market power. These anticompetitive effects are not inevitable because there may be continued competition from unexcluded rivals or substitute products. The paradigm also recognizes that there may be consumer benefits that accompany the foreclosure.

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[48] For the recognition of distributors providing a distributional services input for which they charge a "cost of distribution," see Continental T.V., Inc. v. Sylvania Inc., 433 U.S. 36, 57 n.24 (1977).

[49] *See, e.g.*, Y. Joseph Lin, *The Dampening-of-Competition Effect of Exclusive Dealing*, 39 J. INDUS. ECON. 209 (1990); Daniel O'Brien & Greg Shaffer, *On the Dampening-of-Competition Effect of Exclusive Dealing*, 42 J. INDUS. ECON. 215 (1993).

[50] In *Eisai*, the Third Circuit did not view the choice as sufficiently impeded by the large price penalty for violating the no-steering provision of the formulary access agreement. *See* Eisai, Inc. v. Sanofi Aventis U.S., LLC, 821 F.3d 394, 406–07 (3d Cir. 2016). However, the issue is not whether the entrant's product would not be chosen *under any circumstances* in light of the monopolist's conduct, but rather whether the monopolist is able to maintain a higher degree of monopoly power as a result of its conduct.

[51] For the basic economic analysis, see Steven C. Salop & David Scheffman, *Raising Rivals' Costs*, 73 AM. ECON. REV. 267 (1983); Krattenmaker &. Salop, *supra* note 12. For an application of the theory to exclusive dealing, see Jonathan M. Jacobson, *Exclusive Dealing, "Foreclosure," and Consumer Harm*, 70 ANTITRUST L.J. 311, 347–64 (2002).

[52] There may also be multiple excluding firms, where competition among them is not sufficient to prevent consumer harm. *See, e.g.*, Scott Hemphill & Tim Wu, *Parallel Exclusion*, 122 YALE L.J. 1182 (2013).

A. Input Foreclosure

Exclusive dealing, conditional pricing practices, and other exclusionary conduct can raise entrants' or existing rivals' costs by "input foreclosure," that is, by materially raising their costs or eliminating their efficient access to critical inputs.[53] These inputs can involve manufacturing inputs, such as raw materials, intellectual property, or distribution. Distribution can be understood as an input, and raising rivals' costs of distribution can weaken their ability to serve the entire customer base and their ability and incentives to expand.[54] For example, by excluding its rivals' access to an efficient distribution system or other input, a monopolist can reduce the rivals' ability to induce downward pricing pressure and so can permit the monopolist to maintain its monopoly power in the face of entry.

Input foreclosure has arisen in various cases. For example, in *JTC Petroleum*,[55] Judge Richard Posner described a cartel of highway contractors who applied asphalt to roads and conspired with asphalt suppliers to raise the costs of a maverick competitor, apparently by offering them a higher price in exchange for not selling to the rival. In *Microsoft*,[56] the D.C. Circuit condemned Microsoft's exclusive arrangements with computer manufacturers and Internet Access Providers that distributed the Internet Explorer web browser over the competing Netscape web browser. In doing so, the court found it sufficient that Microsoft's practice forced Netscape to adopt more costly and less effective distribution methods, even though Microsoft had not "completely excluded Netscape" from the market.[57]

The substantiality of input foreclosure is demonstrated most accurately by the resulting impact on the competitors' costs and output, not by the simple fraction of input suppliers that are affected. Input foreclosure can be so severe

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[53] Riordan & Salop, *supra* note 45, at 528–50; Janusz Ordover et al., *Equilibrium Vertical Foreclosure*, 80 AM. ECON. REV. 127 (1990). In this analytic framework, it is often useful and valid to characterize distributors as suppliers of a distribution services input, rather than simply as customers. *See* Krattenmaker & Salop, *supra* note 12, at 226.

[54] As famously summarized by Robert Bork, "In any business, patterns of distribution develop over time; these may reasonably be thought to be more efficient than alternative patterns of distribution that do not develop. The patterns that do develop and persist we may call the optimal patterns. By disturbing optimal distribution patterns one rival can impose costs upon another, that is, force the other to accept higher costs." ROBERT H. BORK, THE ANTITRUST PARADOX 156 (1978); *see also* Aspen Skiing Co. v. Aspen Highlands Skiing Corp., 472 U.S. 585, 604 n.31 (1985) (quoting Bork); United States v. Dentsply Int'l, Inc., 399 F.3d 181, 191 (3d Cir. 2005); United States v. Microsoft Corp., 253 F.3d 34, 70 (D.C. Cir. 2001).

[55] JTC Petroleum Co. v. Piasa Motor Fuels, Inc., 190 F.3d 775, 777 (7th Cir. 1999).

[56] *Microsoft Corp.*, 253 F.3d at 70 (affirming the district court's finding that "Microsoft had substantially excluded Netscape from 'the most efficient channels for Navigator to achieve browser usage share,' and had relegated it to more costly and less effective methods.") (internal citations omitted).

[57] *Id.* at 69–71.

that the foreclosed rivals will exit from the market or be deterred from attempting entry.[58] But even if a rival can cover its costs and remain viable, it will be a weaker and less efficient competitor if its distribution or other input costs are higher. A competitor will have the incentive to raise its prices and/or restrict its output when its marginal costs are increased, even if it earns enough revenue to cover its costs or even to reach minimum efficient scale.[59] Thus, input foreclosure is substantial if it substantially increases rivals' costs or constrains their output or ability to expand. Similar results occur if the foreclosure reduces rivals' product quality.

Some commentators inappropriately focus solely on whether the foreclosure will prevent entrants or small competitors from reaching "minimum efficient scale" (MES), the output level where a firm's average costs bottom out.[60] Others inappropriately limit their concerns solely to whether the foreclosure will prevent rivals from reaching "minimum viable scale" (MVS), the output level where a firm can turn a profit at current prices and thus survive.[61] This narrowing of concerns is artificial and leads to false negatives and underdeterrence. The conditions under which foreclosure can reduce competition are not limited to a failure to achieve MES or MVS.

Even if a viable rival is able to reach the MES output level, its costs may be significantly raised by exclusionary conduct if it has to pay more for distribution or other inputs or if it has to use a more costly input or distribution method.[62] In that sense, its costs also will not be truly minimized, regardless

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[58] *See* Krattenmaker & Salop, *supra* note 12, at 246–47 ("Raising Barriers to Entry").

[59] This reasoning also explains why a "total foreclosure" standard would lead to false negatives. It is not necessary to cause a rival to exit for exclusive dealing to have anticompetitive effects. Raising rivals' costs or restricting their output to a lower level can permit a dominant firm or monopolist profitably to raise or maintain supracompetitive prices.

[60] Joshua D. Wright, *Moving Beyond Naïve Foreclosure Analysis*, 19 GEO. MASON L. REV. 1163, 1163–64 (2012) [hereinafter Wright, *Naïve Foreclosure*]; *see also* Benjamin Klein, *Exclusive Dealing as Competition for Distribution "On the Merits,"* 12 GEO. MASON. L. REV. 119, 122–28 (2003). This analysis could be applied to customer foreclosure as well as input foreclosure. In *Naïve Foreclosure*, Professor Wright mistakenly suggests that there is a "consensus" on the key role of MES and erroneously quotes Krattenmaker and Salop, *supra* note 12, as offering support. Wright, *Naïve Foreclosure*, *supra*, at 1166. For further discussion, see *infra* note 62.

[61] Daniel A. Crane & Graciela Miralles, *Toward a Unified Theory of Exclusionary Vertical Restraints*, 84 S. CAL. L. REV. 605, 646 (2011). The concepts of MES and MVS are different. The 1992 Horizontal Merger Guidelines explained the difference between minimum viable scale and minimum efficient scale in the context of merger analysis. "The concept of minimum viable scale ("MVS") differs from the concept of minimum efficient scale ("MES"). While MES is the smallest scale at which average costs are minimized, MVS is the smallest scale at which average costs equal the premerger price." U.S. Dep't of Justice & Fed. Trade Comm'n, Horizontal Merger Guidelines § 3.3, at 28 n.29 (1992) [hereinafter 1992 Horizontal Merger Guidelines]. In the context of exclusivity by a monopolist, the relevant price might be either the monopolist's pre-entry or post-entry price, depending on the exact question being analyzed.

[62] In his *McWane* dissent, Commissioner Wright erroneously relies on Krattenmaker & Salop as support for his claim that "[t]he concept of 'raising rivals' costs' . . . generally requires input

of scale. For example, even if direct distribution is feasible or substitute distributors exist, higher costs from the foreclosure will reduce efficiency and the rival's competitive impact. Similarly, even if a rival's output exceeds MVS and the competitor remains viable, bearing higher costs from the foreclosure will reduce its efficiency and the competitive constraint it provides. It is in this sense that consumer choice is impeded, even if consumers retain a literal choice among the firms. In both cases, the excluding firm may gain the power to raise or maintain supracompetitive prices as a result.

An antitrust rule that would limit antitrust liability only if foreclosure leads to one or more rivals being unable to reach the MES or MVS output level would create substantial false negatives. As discussed later on, false negatives would be further increased if antitrust protection applied only to hypothetical equally efficient competitors, rather than focusing on whether the entry and competition by actual, real-world competitors would benefit consumers and competition.

B. CUSTOMER FORECLOSURE

Customer foreclosure focuses on the impact of losing efficient access to customers, including distributor customers. Customer foreclosure by a monopolist can injure competitors and harm competition in several distinct ways. First, in the most extreme scenario, the customer base of an entrant or small rival may be limited to such a degree that it is unable to earn sufficient revenue to cover its costs and remain viable in the market. If anticipated sales likely would fall below this "minimum viable scale (MVS)," an entrant would lack an incentive to enter and an existing competitor would have the incentive to exit.[63] Second, the entrant or competitor may remain viable, but customer

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foreclosure sufficient to deprive a rival from achieving minimum efficient scale." Dissenting Statement of Comm'r Joshua D. Wright 11 n.15, McWane, Inc., FTC Docket No. 9351 (Feb. 6, 2014), www.ftc.gov/system/files/documents/public_statements/202211/140206mcwanestatement.pdf. Wright quotes Krattenmaker and Salop, *supra* note 12, at 247, to the effect that "'[E]xcluded rivals no longer produce at minimum cost if the exclusionary rights agreement compels them to substitute less efficient inputs.'" Wright, *Naïve Foreclosure*, *supra* note 60, at 1166 n.20. However, this quotation from the efficiency section of the Krattenmaker and Salop article does not refer to MES. Instead, the quotation and the thrust of the entire article refers to *any* variable cost increase. If rivals are deprived access to the most cost-efficient inputs or have to pay more for them, the rivals' costs will be higher, even if the rival achieves MES. These rivals will provide less of a competitive constraint, which can permit the monopolist to gain power over price to maintain its monopoly prices. *See also* Riordan & Salop, *supra* note 45. These conditions are much more general than whether the restraint prevents the rival from reaching a particular scale of output such as the MES. Nor would these cost disadvantages necessarily force the rivals to fall below MVS and exit.

[63] As explained in the 1992 Horizontal Merger Guidelines: "Minimum viable scale is the smallest average annual level of sales that the committed entrant must persistently achieve for profitability at premerger prices." 1992 Horizontal Merger Guidelines, *supra* note 61, § 3.3, at 28. This is different from whether the entrant or competitor is able to achieve the MVS.

foreclosure may limit its output to a low level and constrain its ability and incentive to expand profitably, by reducing its capacity or by raising its effective costs of expansion. This impact can occur even if the rival can achieve the MVS or MES output level.[64] Third, such customer foreclosure may permit the rival to remain in the market, but may relegate it to a niche position at a low output level, where it will provide less of a constraint on the pricing of the excluding firm(s), again, even if it reaches MES.[65] For example, a monopolist may have the incentive to maintain monopoly prices while ceding a small market share to the entrant.[66] Or, the monopolist may reduce prices, but only to a limited extent because the constrained competitor will not pose a significant threat, or will pose less of a threat. Consumers clearly are harmed by this foreclosure that maintains higher prices. Fourth, by reducing the competitor's likely potential customer base, customer foreclosure may reduce the rival's

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[64] If its output is restricted to a low level, the rival will not provide less of a competitive constraint, even if that low output level exceeds MVS and MES. Professor Klein's article artificially narrowed the focus to MES. He states: "Anticompetitive exclusive dealing requires foreclosure of a sufficient share of distribution so that a manufacturer's rivals are forced to operate at a significant cost disadvantage for a significant period of time. In particular, if exclusive contracts foreclose a sufficient share of distribution to rivals for a significant time so that what remains to serve competitors cannot support a manufacturer of minimum efficient scale, the exclusive will force existing competitors and potential new entrants to operate at a cost disadvantage." Klein, *supra* note 60, at 122–28. While the first sentence states the general point about the rival suffering any significant cost disadvantage, the second sentence ("In particular") discusses only one particular way in which costs are raised, but then never returns to the more general case. In the case of MVS, Professors Crane and Miralles simply *define* "substantial foreclosure" as the amount of foreclosure that would eliminate the "reasonable survival opportunity" of an equally efficient rival to reach MVS. Crane & Miralles, *supra* note 61, at 29. The test is made generally more permissive, of course, by applying it to an equally efficient rival, not to the actual competitor foreclosed.

[65] For a sample of technical economic theory articles related to customer foreclosure and the potential for harms from exclusive dealing, see Michael D. Whinston, *Tying, Foreclosure, and Exclusion*, 80 AM. ECON. REV. 837, 839 (1990); Eric B. Rasmusen et al., *Naked Exclusion*, 81 AM. ECON. REV. 1137, 1140–43 & n.4 (1991); Ilya R. Segal & Michael D. Whinston, *Naked Exclusion: Comment*, 90 AM. ECON. REV. 296, 297 (2000); Michael D. Whinston & B. Douglas Bernheim, *Exclusive Dealing*, 70 J. POL. ECON. 64 (1998); Dennis W. Carlton & Michael Waldman, *The Strategic Use of Tying to Preserve and Create Market Power in Evolving Industries*, 33 RAND J. ECON. 194, 196 (2002).

[66] If the entrant faces capacity constraints, the monopolist might do better by accommodating small scale entry while maintaining a high price. An entrant can exploit this accommodation incentive by limiting its capacity or ability to expand in other ways. For the standard economic analysis of the incentives to accommodate the entry of an entrant constrained to remain small, see Drew Fudenberg & Jean Tirole, *The Fat-Cat Effect, the Puppy-Dog Ploy, and the Lean and Hungry Look*, 74 AM. ECON. REV. (PAPERS & PROC.) 361 (1984); Judith R. Gelman & Steven C. Salop, *Judo Economics: Capacity Limitation and Coupon Competition*, 14 BELL J. ECON. 315 (1983); Avner Shaked & John Sutton, *Relaxing Price Competition Through Product Differentiation*, 49 REV. ECON. STUD. 3 (1982); Louis A. Thomas, *Incumbent Firms' Response to Entry: Price, Advertising, and New Product Introduction,* 4 INT'L J. INDUS. ORG. 527 (1999). For application to competitive effects analysis of mergers, see Steven C. Salop, *Measuring Ease of Entry,* 331 ANTITRUST BULL. 551, 559 n.10 (1986).

incentives to invest and innovate over time. This can harm consumers directly.[67] It also can weaken the monopolist's own incentives to innovate.

Thus, the degree of foreclosure is not gauged primarily by the fraction of distributors or customers that are affected, but rather by the impact on the competitors and competition in the downstream market. In order to avoid false negatives, the proper standard also cannot be restricted solely to whether there is total foreclosure.[68] Nor would the proper standard be limited only to when the competitor suffering the effects of the foreclosure is unable to survive in the market.

The condemned conduct in *Lorain Journal Co. v. United States*[69] provides a classic example of customer foreclosure. The *Journal* enjoyed a "complete daily newspaper monopoly of local advertising" in Lorain, Ohio, distributing its paper to 99 percent of families in the area.[70] The *Journal* adopted a policy of refusing to accept local advertising from any Lorain County advertiser who also advertised with WEOL, a local radio station that recently entered the market.[71] The policy deterred many local merchants from advertising with the radio station, creating a dangerous probability of the radio station going out of business had the *Journal*'s conduct not been enjoined by the lower court.[72] The Supreme Court affirmed the lower court's holding that the exclusive dealing constituted an attempted monopolization in violation of Section 2 of the Sherman Act by depriving the radio station of a market for its advertising air time.[73]

Meritor[74] also involved customer foreclosure by Eaton, allegedly to raise the barriers to competition by Meritor, its only competitor. Eaton's CPPs allegedly provided discounts to the four truck manufacturers that purchased almost all of their transmissions from Eaton under long-term contracts (about 90 percent for three of the companies and 70 percent for the other, which

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[67] *See* Robert Dorfman & Peter O. Steiner, *Optimal Advertising and Optimal Quality*, 44 AM. ECON. REV. 826 (1954). The "advertising" variable in their model can be reinterpreted as investment. If the maximum customer base is lowered from foreclosure, profit maximization would tend to lead to less investment.

[68] ZF Meritor LLC v. Eaton Corp., 696 F.3d 254, 283 (3d Cir. 2012) ("'[T]otal foreclosure' is not required for an exclusive dealing arrangement to be unlawful . . . .") (citation omitted); United States v Dentsply Int'l Inc., 399 F.3d 181, 191 (3d Cir. 2005) ("The test is not total foreclosure, but whether the challenged practices bar a substantial number of rivals or severely restrict the market's ambit.") (citation omitted); United States v. Microsoft Corp., 253 F.3d 34, 69–71 (D.C. Cir. 2001).

[69] 342 U.S. 143 (1951).

[70] *Id.* at 149–50.

[71] *Id.* at 148.

[72] *Id.* at 150.

[73] *Id.* at 154.

[74] *ZF Meritor*, 696 F.3d at 264, 266–67.

produced some of its own transmissions). In addition to the CPPs, Eaton also required the manufacturers to "preferential price Eaton transmissions against competitors' equivalent transmissions."[75]

Input and customer foreclosure also can occur simultaneously, for example, if a rival's costs are raised through input foreclosure and its customer base is reduced through customer foreclosure.[76] This is commonly the case when the exclusives or other exclusionary conduct involve distributors. Distributors are properly characterized as supplying the manufacturer with a distribution services input, as well as being customers of the manufacturer. When input and customer foreclosure occur simultaneously, their impacts can be mutually reinforcing. The higher costs from input foreclosure can prevent the rival from serving certain customers at low cost, which then can cause it to exit or be neutralized, or reduce its incentives to invest. If marginal (variable) costs are higher when output is lower, customer foreclosure can lead to a rival having such higher costs as a result of having a lower scale of production.[77] Or, if a rival's sales are restricted by customer foreclosure, the rival may be unable to negotiate low input prices with certain suppliers. Or the rival may find it uneconomical to adopt a more efficient technology that requires a high scale of production to cover its investment and other fixed costs.[78] If a rival has higher costs or is limited to a low effective capacity, a monopolist or dominant firm will have the ability and incentive to charge higher prices to consumers.

Dentsply[79] is a case that focused on customer foreclosure but where input foreclosure also appears to be involved. The defendant, Dentsply, a manufacturer of artificial teeth, with a 75–80 percent share of the relevant market, adopted a policy (known as "Dealer Criterion 6") of refusing to sell to any dealer that added a competing artificial tooth line to its product offering. Although competing manufacturers could, and did, sell directly to customers, the court found that distributing artificial teeth through dealers had lower transactions costs[80] and other advantages over direct distribution and acted as the

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[75] *Id.* at 266.

[76] One example of this is a situation where a new entrant needs to obtain one or more "lead customers" to sponsor its entry into the market or attest to the reliability of its product, and thereby reduce its costs, including marketing costs in selling to others. A related type of claim was made by AMD in its complaint against Intel. Advanced Micro Devices, Inc. v. Intel Corp., No. 05-441, ¶ 129 (D. Del. filed June 27, 2005), download.intel.com/pressroom/legal/amd/1-1_Complaint,%20Main%20Doc_AMD.pdf. Professor Salop served as an economic consultant to Intel in the European Commission proceeding.

[77] This particular point also would be relevant to a situation where the competitor is unable to expand to an output level closer to MES.

[78] McWane Inc. v. FTC, 783 F.3d 814, 840 (11th Cir. 2015).

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

[80] *Id.* at 192–93.

"gateway[ ]" to dental laboratory customers.[81] The Third Circuit thus concluded that Dealer Criterion 6 was "a solid pillar of harm to competition" because "[i]t help[ed] keep sales of competing teeth below the critical level necessary for any rival to pose a real threat to Dentsply's market share."[82]

The case law, however, does not condemn every instance of exclusivity that somehow interferes with a rival's ability to get its product to market. For example, the Ninth Circuit, in *Omega Environmental, Inc. v. Gilbarco, Inc.*,[83] held that the record evidence was insufficient to support a jury's finding that Gilbarco's exclusive dealing violated Section 3 of the Clayton Act. In that case, Gilbarco instituted a policy of dealing only with distributors who sold its line of retail gasoline dispensers exclusively. Unlike the situation in *Microsoft* and *Dentsply*, the court found that selling through distributors was not the only efficient route to market. Rather, the court found that there was "undisputed evidence that direct sales to end-users [was] an alternative channel of distribution," with the number two manufacturer, Dresser, making 73 percent of its sales without the aid of a distributor.[84] In addition, the majority concluded that Schlumberger was able to enter the gasoline dispenser market and successfully expand its sales, notwithstanding Gilbarco's exclusive dealing.[85] Given its findings, the court did not condemn the challenged arrangement.

In *Eisai*, the district court and the Third Circuit also rejected the plaintiff's customer foreclosure claims.[86] In that matter, the CPPs applied to the final hospital customers, not distributors. The court concluded that Sanofi's unique medical indication and the alleged deception did not create a significant disadvantage facing Eisai in the form of significant non-contestable sales. Eisai apparently was not in danger of exiting or reducing its investments. Therefore, the court concluded that Eisai could have competed with Sanofi on an equal footing for each customer with its own price cuts, unencumbered by Sanofi's "condition." Moreover, Eisai offered its own CPPs.[87] Thus, the court concluded that Sanofi's CPPs simply did not foreclose competition substantially.

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[81] *Id.* at 193.

[82] *Id.* at 191.

[83] 127 F.3d 1157 (9th Cir. 1997).

[84] *Id.* at 1163.

[85] *Id.* at 1164.

[86] *See* Eisai, Inc. v. Sanofi Aventis U.S., LLC, 821 F.3d 394 (3d Cir. 2016), *aff'g* Eisai Inc. v. Sanofi-Aventis U.S., LLC, No. 08-4168, 2014 WL 1343254, at *36 (D.N.J. Mar. 28, 2014).

[87] Sanofi's CPPs appeared to involve below-cost incremental prices over a wide range. However, Eisai apparently did not allege—and the court did not analyze the conduct as—predatory conditional pricing, as discussed in more detail, *infra* Part V.

C. IMPACT ON MARKET OR MONOPOLY POWER

The fact that one or more competitors are injured by input or customer foreclosure does not necessarily mean that market or monopoly power will be achieved or consumers will be harmed. Consumer harm may be prevented by the existence of and continued competition from a sufficient number of non-excluded competitors, as found in *Gilbarco*.[88] These other competitors might prevent the excluding firm or firms from achieving, enhancing or maintaining market (or monopoly) power. This outcome can occur if sufficient other rivals are not foreclosed from the critical input, the remaining rivals are not at a cost disadvantage, and the remaining competitors do not coordinate prices.[89] As summarized by Krattenmaker and Salop, consumer harm requires "power over price," that is, the power to raise or maintain supra-competitive prices, as well as "rais[ing] rivals' costs."[90]

When the excluding firm is a monopolist and its foreclosure conduct raises the costs or reduces the effective capacity of all of the most-likely entrants into the market, that conduct more likely will give the monopolist power over price and cause harm to competition and consumers. Because monopolists charge prices that exceed their costs, successful entry into a monopoly market generally leads to lower prices, even if the viable entrants are less efficient than the monopolist. If exclusionary conduct targets most or all of the most likely potential entrants and raises their costs or reduces their output, and there are insufficient other unexcluded rivals to replace their lost competition, downward pricing pressure on the monopolist's prices will be limited or entirely eliminated. In cases where the monopolist's power was somewhat constrained by competition, foreclosure can maintain or enhance monopoly power.

When a monopolist engages in foreclosure against entrants, consumer harm can occur through several mechanisms.[91] First, the foreclosure can so raise the costs of the potential entrants or constrain their potential sales that it creates prohibitive barriers to entry, in which case the monopolist can maintain its full monopoly price. Second, the foreclosure can raise an entrant's costs to a lesser degree, in which case the monopolist may need to reduce its prices somewhat, but by less than if the rivals' costs had not been raised. Third, the foreclosure could limit the capacity of entrants, cause them to shrink, or restrict their ability to expand and gain market share, whether or not it raises

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[88] 127 F.3d at 1163–64.

[89] *See also* Hemphill & Wu, *supra* note 52.

[90] Krattenmaker & Salop, *supra* note 12, at 242–43.

[91] *See generally id.* at 216, 246–47.

their costs of producing at low output levels.[92] Here too, the limitation may reduce or eliminate the monopolist's incentive to cut prices in response to the entry.

For example, if competitors' outputs are capped or constrained, the monopolist can maintain its supracompetitive pricing while ceding a limited market share to the constrained competitors. Entry by a single small competitor with only a very limited ability to grow is much less threatening to the monopolist's market share, precisely because the entrant would lack the ability profitably to expand its capacity to meet the demand at lower prices.[93] In this situation, an accommodation strategy can be a more profitable strategy for the monopolist than significantly reducing its own prices to prevent the entrant from growing.[94] But, while this strategy of accommodation may be more profitable for the monopolist, it harms consumers by eliminating or weakening price competition. Effective consumer choice is impeded by the higher prices.

As discussed above, it is insufficient to limit the economic analysis solely to whether the foreclosure is total or whether it will drive rivals below MVS and cause them to exit, or to focus only on the effect of the foreclosure on the ability of the foreclosed rivals to reach MES.[95] A firm can achieve, enhance, or maintain monopoly power by raising the costs or restricting the output of rivals that remain viable, whether or not the rivals are able to reach the MES level of output. Anticompetitive effects also can occur if viable rivals become less efficient at other output levels. Competition also is weakened if rivals' costs are raised or if their sales are constrained sufficiently that the monopolist lacks the need to reduce its prices to compete, but instead can maintain monopoly prices while ceding a small market share to the competitor. The competitive harm also may not be permanent but merely delay effective entry.[96]

Some courts and commentators have suggested that foreclosure should only be considered a cognizable concern if it would exclude competitor that is "as

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[92] In economic terms, this occurs when the conduct raises the entrant's marginal costs of expansion beyond a limited output level.

[93] In the standard economic model of a dominant firm facing a less efficient competitive fringe, the dominant firm (or monopolist) balances the marginal contribution to profits from a higher market share versus the contribution from a higher price-cost margin. JEAN TIROLE, THE THEORY OF INDUSTRIAL ORGANIZATION 218–20 (1988).

[94] *See infra* note 67.

[95] *See supra* notes 58–66 and accompanying text.

[96] As explained by Professor Hovenkamp, "A set of strategically planned exclusive dealing contracts may slow the rival's expansion by requiring it to develop alternative outlets for its products or rely at least temporarily on inferior or more expensive outlets. Consumer injury results from the delay that the dominant firm imposes on the smaller rival's growth." HERBERT HOVENKAMP, ANTITRUST LAW ¶ 1802c, at 64 (2d ed. 2002).

efficient" as the monopolist.[97] When products are differentiated so that some consumers prefer the monopolist's product and other consumers prefer the entrant's product, the concept of "equally efficient competitor" is not well defined. But, even where products are fungible, limiting the legal standard for exclusionary conduct solely to protecting such "equally efficient competitors" is overly permissive and would lead to significant false negatives and under-deterrence.[98] Actual or potential entry by less efficient entrants into a monopoly market would cause prices to fall as long as the entrants' costs are less than the monopoly price. Thus, that entry could generate consumer benefits.[99] By reducing price, it also would contribute to economic efficiency by reducing the deadweight loss in consumer surplus from the monopolist's pre-entry pricing. Even in the context of this permissive standard, it must be recognized that the foreclosing conduct may actually prevent the entrant from achieving the scale necessary to become an "equally efficient competitor."[100]

It sometimes is argued that vertical restraints implemented by a monopolist cannot lead to anticompetitive effects because there is only a "single monopoly profit" and the restraints do not permit any additional monopoly profits to be created or exercised.[101] This theory may be applicable to certain tying arrangements and vertical mergers, but only under specific and very limited conditions, including prohibitive entry barriers that protect the so-called single monopoly.[102] The theory clearly does not apply to exclusionary conduct by a

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[97] RICHARD A. POSNER, ANTITRUST LAW: AN ECONOMIC PERSPECTIVE 194–95 (2d ed. 2001). For the application to exclusive dealing, see Crane and Miralles, *supra* note 61, at 24, 29. In *Eisai*, the court referred to the equally efficient competitor standard, but did not require evidence that the plaintiff was equally efficient. Eisai, Inc. v. Sanofi Aventis U.S., LLC, 821 F.3d 394, 406 (3d Cir. 2016).

[98] Using the example of a fraudulent patent claim, Professor Hovenkamp characterizes the standard as "unreasonably lenient and even perverse. It exonerates the defendant in precisely those circumstances when the conduct is most likely to be unreasonably exclusionary." Herbert Hovenkamp, *Exclusion and the Sherman Act*, 72 U. CHI. L. REV. 147, 154 (2005).

[99] *See* Herbert Hovenkamp, *The Harvard and Chicago Schools and the Dominant Firm*, *in* HOW THE CHICAGO SCHOOL OVERSHOT THE MARK: THE EFFECT OF CONSERVATIVE ECONOMIC ANALYSIS ON U.S. ANTITRUST 109, 117 (Robert Pitofsky ed., 2008); John Vickers, *Abuse of Market Power,* 115 ECON. J. F244 (2005); Steven C. Salop, *Exclusionary Conduct, supra* note 1, at 328–29.

[100] Richard Posner recognized that this issue could warrant an expansion of the standard to include competitors that would be equally efficient but for the conduct. *See* Richard A. Posner, *Vertical Restraints and Antitrust Policy*, 72 U. CHI. L. REV. 229, 240 (2005); *see also* Brief for the United States as Amicus Curiae at 13 n.10, 3M Co. v. LePage's Inc., 342 U.S. 953 (2004) (No. 02-1865) ("Firms with equal costs at any common level of output may have different costs because they produce different levels of output, perhaps as a result of allegedly exclusionary conduct, which calls into question their comparative efficiency."). However, even expanded in this way, the standard remains improperly too permissive.

[101] For the classic statement, see Ward S. Bowman, Jr., *Tying Arrangements and the Leverage Problem*, 67 YALE L.J. 19 (1957).

[102] For example, a monopolist may use exclusionary conduct to maintain its existing monopoly, achieve market power in an adjacent market for consumers that do not purchase the monop-

monopolist facing a threat of entry. In this situation, the excluding firm's monopoly position is being threatened and the exclusivity of a critical input is being used in order to maintain the monopoly. Absent the exclusionary conduct, the monopoly profit would be dissipated at least somewhat. In other words, the exclusionary conduct is intended to *maintain* the firm's monopoly, not increase it or extend it to a second market.

It sometimes is argued that the rivals can protect themselves by outbidding the monopolist for exclusive or non-exclusive distribution or access to other inputs. This "competition for exclusives" (or "competitive for the contract") argument can be valid when the firms are equally matched and each is well positioned to obtain a significant share of the exclusives. For example, each law firm has exclusivity rights with each of its partners, but there are many viable, competing law firms. Bidding for non-exclusivity also can prevent anticompetitive exclusion where the rival requires only a very small fraction of a large number of potential distributors or there are no barriers to entry facing distributors. In those cases, it may not be profitable for even a monopolist to attempt to foreclose rivals' access to distribution.

However, competition for exclusives is not a general panacea for anticompetitive concerns about foreclosure conduct for several reasons, even if the entrant is equally efficient and even if the exclusives are short term or terminable at will. First, it is common that distributors or customers would value an entrant's product solely as a supplementary supply, rather than to replace the monopolist's product.[103] In this situation, a monopolist has significant bidding advantages because it is protecting its monopoly power rather than simply attempting to earn a competitive return, and can use those anticipated monopoly profits as a "market power fund" to finance higher bids.[104] Even if the rival is more efficient or is offering a superior product, those advantages may be

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oly product, or evade price regulation. Exclusionary conduct also can be used to achieve or better exercise monopoly power. For discussion of the various limitations of the single monopoly profit theory, see Andrew I. Gavil, *Dominant Firm Distribution: Striking a Better Balance*, 72 ANTITRUST L.J. 3 (2004); Louis Kaplow, *Extension of Monopoly Power Through Leverage*, 85 COLUM. L. REV. 515 (1985); Michael H. Riordan & Steven C. Salop, *supra* note 45; Carlton & Waldman, *supra* note 65; Steven C. Salop & R. Craig Romaine, *Preserving Monopoly: Economic Analysis, Legal Standards, and Microsoft*, 7 GEO. MASON L. REV. 617 (1999). For the context of a bargaining model, see Oliver Hart & Jean Tirole, *Vertical Integration and Market Foreclosure*, BROOKINGS PAPERS ON ECONOMIC ACTIVITY 205, 208–09 (1990); R. Preston MacAfee & Marius Schwartz, *Opportunism in Multilateral Vertical Contracting: Nondiscrimination, Exclusivity and Uniformity*, 84 AM. ECON. REV. 210 (1994).

[103] This likely was the case in *Lorain Journal*, where radio advertising could supplement, but not replace, the newspaper advertising. *See* Lorain J. Co. v. United States, 342 U.S. 143, 149–50 (1951).

[104] For example, in *JTC Petroleum*, there was sufficient evidence for a jury to reasonably find that Piasa and the other cartel members paid the asphalt suppliers more than the market price in exchange for the suppliers' foreclosing JTC's access to the input. JTC Petroleum Co. v. Piasa Motor Fuels, Inc., 190 F.3d 775, 778–79 (7th Cir. 1999).

unable to overcome the monopolist's market power fund and the higher cost entailed by the bidding. Second, an incumbent monopolist also can negotiate exclusives before the entrant has time to respond. Third, if the entrant needs wide distribution, each distributor might accept the monopolist's offer rather than take the risk that the entrant will fail to obtain sufficient distribution. Because the distributors typically cannot coordinate their responses, an expectation by a number of distributors that entry will fail because other distributors will not support it can become a self-fulfilling prophecy.[105] This coordination problem also is not eliminated if exclusives have short duration. Finally, if there are multiple entrants, bidding competition may be impeded by free-rider issues among these competitors. Consumers also typically do not become involved in bidding competition, despite their benefits from increased competition. As discussed in more detail below, these various impediments also explain why price-cost tests can lead to a significant false negatives problem.[106]

D. COGNIZABLE COMPETITIVE BENEFITS

Exclusive dealing and other exclusionary conduct can have procompetitive motivations and cognizable beneficial effects. The courts have long recognized the potential for cognizable efficiency benefits from conduct that forecloses rivals.[107] In cases where there are both significant and probable harms and cognizable benefits, the two effects must be compared in order to estimate the overall, net effects on consumer welfare and the competitive process. This comparison would involve both the probability and magnitude of the opposing effects.[108]

The efficiencies can involve a variety of mechanisms. For example, in nonmonopoly markets, buyers sometimes can use exclusives to induce more price competition among their suppliers.[109] Exclusives potentially can reduce risk by assuring a buyer with a guaranteed source of inputs or a seller with a

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[105] *See* Krattenmaker & Salop, *supra* note 12, at 268–77; Steven C. Salop, *Economic Analysis of Exclusionary Vertical Conduct: Where Chicago Has Overshot the Mark, in* HOW THE CHICAGO SCHOOL OVERSHOT THE MARK, *supra* note 99, 174–78; *see also* sources cited *supra* note 65.

[106] *See infra* Part IV.

[107] Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2, 45 (1984) (O'Connor, J. concurring); Standard Oil Co. of Cal. v. United States, 337 U.S. 293, 306–07 (1949); *see also* Jacobson, *supra* note 51, at 357–60.

[108] The underlying economic methodology in principle would involve estimating the upward pricing pressure from the foreclosure and resulting power over price and comparing it to the downward pricing pressure from the competitive benefits. Where the conduct increases the quality of the products or service, the latter estimate would involve the "quality-adjusted" price.

[109] Richard M. Steuer, *Customer-Instigated Exclusive Dealing*, 68 ANTITRUST L.J. 239 (2000); Benjamin Klein & Kevin M. Murphy, *Exclusive Dealing Intensifies Competition for Distribution*, 75 ANTITRUST L.J. 433 (2008).

guaranteed outlet for its products. Exclusives can provide incentives for improved products, better service, and increased promotion.[110] When there is competition among a number of relatively equal competitors each with its own exclusives, and no coordination, then exclusives also are on balance less likely to cause harm to competition, as opposed to exclusives adopted by a monopolist facing a new entrant.

Exclusivity by monopolists could also be procompetitive by preventing free riding. For example, a new entrant manufacturer might free ride on the advertising by the monopolist, if the retailer carries both brands and the monopolist's advertising drives consumers to the retailer, as was the case in *Beltone*.[111] A dishonest retailer might even attempt to employ bait-and-switch tactics, if selling the entrant's brand is more profitable. If a software applications developer intends to port its application to multiple platforms, it may sacrifice quality by programming for the lowest common denominator, rather than using all the capabilities of the monopoly platform.

When exclusivity is instituted by a monopolist against all of its competitors, there is a greater likelihood that the harms dominate the benefits because there is no other competition to protect consumers. The claimed efficiencies also may not be cognizable. For example, bold claims of increased "dealer loyalty" may amount to nothing more than creation of barriers to entry that maintain monopoly prices, rather than leading to product or service improvements that increase total market output and benefit consumers. Thus, it is important to analyze the efficiency claims on a case-by-case basis, taking market structure into account, rather than assuming their existence.

Moreover, in performing such an analysis on a case-by-case basis, it is also important that the price and output effects are properly characterized. If a dealer loyalty commitment is designed to raise the output of the monopolist, that effect only benefits consumers if *total market output* is increased. For example, if the conduct increases the monopolist's output by 100 units but reduces the output of competitors by 150 units, then total market output will fall by 50 units, which will cause price to be higher, *ceteris paribus*. A separate caution arises with respect to price comparisons to the relevant price benchmark. In monopoly maintenance, the typical concern about harm to

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[110] For a sampling of economics articles that raise possible efficiency claims, see Howard P. Marvel, *Exclusive Dealing*, 25 J.L. & ECON. 1 (1982); Daniel P. O'Brien & Greg Shaffer, *Nonlinear Supply Contracts, Exclusive Dealing, and Equilibrium Market Foreclosure*, 6 J. ECON. & MGMT. STRATEGY 755 (1997); Benjamin Klein & Andres V. Lerner, *Expanded Economics of Free-Riding: How Exclusive Dealing Prevents Free-Riding and Creates Undivided Loyalty*, 74 ANTITRUST L.J. 473 (2007); Klein, *supra* note 60.

[111] Beltone Elecs. Corp., 100 F.T.C. 68 (1982); *see also* Judge Bork's description of the issue in *Rothery Storage & Van Co. v. Atlas Van Lines, Inc.*, 792 F.2d 210 (D.C. Cir. 1986). However, his analysis turned upon the lack of market power of Atlas. *Id.* at 228–29.

competition is not that price will rise above the pre-entry level.[112] Instead, the harm is that price will fail to fall to a lower, more competitive level as a result of entry. The proper antitrust benchmark thus is the price and market output that would occur *but for* the allegedly anticompetitive conduct. Finally, when the foreclosure conduct involves some harm of competition that is said to be trumped by efficiency benefits, it is important to confirm that the exclusivity is reasonably necessary, or evaluate whether the benefits instead could be achieved by other conduct that does not interfere as much with interbrand competition. There also may be harms to inframarginal consumers that outweigh the benefits to the marginal consumers, in which case an increase in output nonetheless may involve harm to consumers on balance.

III. APPLYING THE TWO PARADIGMS TO CONDITIONAL PRICING PRACTICES (CPPS)

The choice of antitrust paradigm arises with respect to payments for exclusivity and other conditional pricing practices. CPPs involve price offers that come with a "condition." They combine partial or complete exclusivity with lower relative prices or payments to customers. In the case of CPPs with input suppliers, they involve higher prices or payments if the input suppliers agree to the condition. These prices or payments are conditioned on the counterparties making certain commitments involving the volume or percentage of purchases or sales. Loyalty discounts and rebates offer lower nominal prices to customers conditional on the share of the customer's total purchases.[113] Loyalty discounts were at issue in cases such as *Intel*,[114] *Concord Boat*,[115] and *Meritor*.[116] Bundle discounts and rebates offer lower nominal prices conditional on the customer's commitment to purchase multiple products from the

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[112] *See, e.g.*, Krattenmaker & Salop, *supra* note 12 at 246–47; Steven C. Salop, *The First Principles Approach to Antitrust,* Kodak*, and Antitrust at the Millennium*, 68 ANTITRUST L.J. 187, 197 (2000). In that there are degrees of monopoly power, exclusionary conduct could lead to the enhancement as well as the maintenance of monopoly power.

[113] A loyalty price discount might be triggered by exclusivity or near-exclusivity. For example, a dominant firm might offer an unrestricted price of $100, but then a discount price of $95 for customers who deal with it exclusively, or perhaps for customers who award it (say) 90% of their business.

[114] Intel argued that its conduct did not involve conditional discounts but simply separate bidding competitions. Advanced Micro Devices, Inc. v. Intel Corp., No. 05-441 (D. Del. filed June 27, 2005) (Nov. 12, 2009 settlement: download.intel.com/pressroom/legal/AMD_settlement_agreement.pdf); Complaint, Intel Corp., FTC Docket No. 9341 (Dec. 16, 2009) (July 28, 2010 settlement: download.intel.com/pressroom/legal/ftc/FTC_Final_Executed_Agreement.pdf); COMP/C-3/37.900—Intel Corp., Comm'n Decision (May 13, 2009), ec.europa.eu/competition/sectors/ICT/intel.html. This author submitted an expert report on behalf of Intel in the EC proceeding and consulted with Intel on the FTC investigation.

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

[116] ZF Meritor, LLC v. Eaton Corp., 696 F.3d 254 (3d Cir. 2012), *cert. denied*, 133 S. Ct. 2025 (2013).

seller. Bundle discounts and rebates were at issue in the *LePage's*[117] and *Peace Health*[118] cases.

These loyalty payments tend to be offered mainly by dominant firms, whereas bundle payments sometimes are offered by firms that face substantial competition. However, the basic economic analysis of both types of CPPs is the same. Moreover, the functional distinction between them can be fuzzy. While loyalty payments may apply to a single physical product, a consumer may not view the entrant's product as a good substitute for some uses ("incontestable" demand) but may consider them close substitutes for other uses ("contestable" demand). For example, two pharmaceuticals may have FDA approval for some indications, but only one may have approval for other indications. Thus, the same basic economic analysis would apply to both.[119] Nor does the concept of incontestable demand mean that the dominant firm's product is uniquely applicable to the one use. The concept also applies where demand for the dominant firm's product is significantly more inelastic. This situation can arise for differentiated products when the one product is superior for some uses but less so or not at all for others.

The use of CPPs voluntarily to achieve exclusivity (or near-exclusivity) can be contrasted to the mandatory (or "coerced") exclusive dealing in cases like *Lorain Journal* and tying in cases like *Jefferson Parish*. While discussion of CPPs often focuses on conditional prices offered to distributors, firms also might offer conditional prices or payments to input suppliers who agree to restrict supply to its rivals. Loyalty payments also could be based on retailers' allocation of shelf space.[120]

The application of the two paradigms to CPPs has differed among courts and commentators. Some have argued that the plaintiff should be required to show that the defendant's pricing (net of discounts) exhibits short-term losses in the sense that it is setting prices that fall below an appropriate measure of cost.[121] Others have argued that the plaintiff should be able to establish liabil-

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[117] LePage's, Inc. v. 3M, 324 F.3d 141 (3d Cir. 2003) (reargued en banc).

[118] Cascade Health Sols. v. PeaceHealth, 515 F.3d 883, 901 (9th Cir. 2008).

[119] In *Eisai* and *ZF Meritor*, the courts maintained the importance of this distinction. *See* Eisai Inc. v. Sanofi Aventis U.S., LLC, 821 F.3d 394, 405 (3d Cir. 2016); *ZF Meritor*, 696 F.3d at 274–75. The issue is whether the seller can price discriminate when a single customer uses a product for different uses. Such price discrimination is often possible when the product includes intellectual property.

[120] Church & Dwight Co. v. Mayer Labs. Inc., 868 F. Supp. 2d 876 (N.D. Cal. 2012).

[121] *See, e.g.*, Concord Boat Corp. v. Brunswick Corp., 207 F.3d 1039 (8th Cir. 2000); NicSand, Inc. v. 3M Co., 507 F.3d 442 (6th Cir. 2007) (en banc); *PeaceHealth*, 515 F.3d at 901; 3A PHILLIP AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW ¶ 749e, at 356 (4th ed. 2015); ANTITRUST MODERNIZATION COMMISSION, REPORT & RECOMMENDATIONS 83 (2007); *see also* Brief for Eighteen Scholars as Amici Curiae in Supp. of Pet'r, Eaton Corp. v. ZF Meritor LLC, 133 S. Ct. 2025 (2013) (No. 12-1045), 2013 WL 1309073; Daniel A. Crane, *Mixed Bundling, Profit*

ity under a more traditional rule of reason analysis that focuses on foreclosure and the likelihood of achieving or maintaining monopoly power (or, market power in the case of CPPs embedded in agreements), taking into account any procompetitive benefits of the exclusionary conduct.[122] In *ZF Meritor*, the court's decision focused on exclusive dealing because the plaintiffs argued that the long-term contracts in their entirety amounted to de facto exclusive dealing contracts.[123]

The analysis in this article supports the view that the RRC foreclosure paradigm generally is more appropriate for analyzing CPPs, particularly where the CPPs are made to distributors or other input suppliers. The RRC paradigm focuses on the *condition*, not the *price level*. For example, under the RRC paradigm, payments to distributors for exclusivity would be analyzed as exclusive dealing, not as predatory pricing. CPPs fundamentally differ from the plain-vanilla price discounts of the predatory pricing paradigm because of the conditions attached to them. Conditional discounts may lead to lower *nominal* prices. But the attached conditions also can raise rivals' costs and erect barriers to entry. Once these exclusionary effects are taken into account, particularly in monopoly or dominant firm markets, even the nominally discounted prices may exceed the *unconditional* prices that would be charged in the market if the CPPs were prohibited by antitrust law. Moreover, while the conditional payments may be nominally structured as discounts, in some cases they actually may be price surcharges levied on disloyal customers over and above the prices before the conditions were added or those that would occur in the absence of the conditions.

These differential effects have implications for the choice between the two paradigms. The predatory pricing paradigm would treat all conditional discounts and payments as presumptively beneficial price competition, despite the fact that the discounts or payments are conditional rather than unconditional. That paradigm would focus solely on whether or not the pricing is "predatory," by applying a price-cost test.

Sacrifice, and Consumer Welfare, 55 EMORY L.J. 423 (2006); Jonathan M. Jacobson, *Exploring the Antitrust Modernization Commission's Proposed Test for Bundled Pricing*, ANTITRUST, Summer 2007, at 23 [hereinafter Jacobson, *AMC's Proposed Test*]; Jonathan M. Jacobson, *A Note on Loyalty Discounts*, ANTITRUST SOURCE (June 2010) [hereinafter Jacobson, *Loyalty Discounts*], www.americanbar.org/content/dam/aba/publishing/antitrust_source/Jun10_Jacobson6_24f.authcheckdam.pdf; Thomas A. Lambert, *Evaluating Bundled Discounts*, 89 MINN. L. REV. 1688 (2005); Thomas A. Lambert, *Appropriate Liability Rules for* Tying *and Bundled Discounting*, 72 OHIO ST. L.J. 909 (2011).

[122] *See, e.g.*, *ZF Meritor*, 696 F.3d at 270; *LePage's, Inc.*, 324 F.3d at 141. For a sample of articles, see Nicholas Economides, *Loyalty/Requirement Rebates and the Antitrust Modernization Commission: What Is the Appropriate Liability Standard?*, 54 ANTITRUST BULL. 259, 276–77 (2009); Jacobson, *supra* note 51, at 357–60.

[123] *ZF Meritor*, 696 F.3d at 270.

In contrast, the RRC foreclosure paradigm would attack the condition, not the price level. It would focus on the fact that the discounts or payments have exclusionary conditions attached, and that these conditions can lead to anticompetitive foreclosure that raises effective costs of rivals, limits their output, and erects barriers to entry and expansion. As a result of the conditions, the resulting prices can exceed the competitive benchmark price that would occur in the "but-for world" without the CPPs.

The fact that the RRC foreclosure paradigm would attack the condition, not the price level, also has administrative advantages. It eases the burden on the courts. The court can prohibit the condition, without having to evaluate the price level or regulate the price.[124] The court also does not need to carry out a complex price-cost test. This similarly eases the burden on the firms. A firm can comply simply by setting prices that do not depend on the customer's share or volume of purchases from the monopolist.

The typical price-cost test for CPPs compares the incremental prices and incremental cost on the additional purchases or sales driven by the condition. As discussed in detail below,[125] this greater complexity means that the test is more difficult to implement objectively and accurately than the usual *Brooke Group* test. For example, the output levels used in the test may vary from customer to customer. The test also leads to a significant likelihood of false positive or false negative errors.

One reason for the significant false negative errors is the fact that bidding competition often does not take place on the level playing field normally associated with standard price competition on the merits. Instead, when a price discount by a dominant firm or monopolist is conditioned on customer loyalty, bidding incentives are skewed. The incumbent firm is bidding with the purpose of maintaining market power rather than simply competing for scarce distribution or inputs. The lack of coordination among distributors also creates bidding impediments for the entrant or fringe firm. As a result, the incumbent firm may be able to maintain its monopoly power, even though the resulting prices are far above the monopolist's costs. But false positive errors also can occur. Below-incremental cost pricing to some customers, distributors, or suppliers does not always significantly disadvantage the entrant. And competition from other firms may prevent the exercise of market power.

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[124] It would also be possible for a court to modify the condition, for example, by substantially reducing the market share threshold at which the lower price kicks in, as a way to ensure that the entrant is not prevented from expanding sufficiently to provide a sufficient competitive constraint on the monopolist's pricing. This was used as a remedy in the FTC's *Intel* case. Intel Corp., FTC Docket No. 9341, at IV.7 (requiring incremental discounts), www.ftc.gov/sites/default/files/documents/cases/2010/08/100804inteldo_0.pdf.

[125] *See infra* Part IV.

While the predatory pricing paradigm requires a price-cost test, the RRC foreclosure paradigm would take a more conventional rule of reason approach to evaluating whether or not consumers are harmed on balance. The analysis would evaluate the CPPs as input and/or customer foreclosure and evaluate the likely impact on consumers and competition. This does not mean that courts should rely on simple-minded foreclosure rates.[126] The analysis of the two variants of foreclosure instead would evaluate whether the rival likely would be significantly foreclosed in the sense of suffering significantly higher costs or limitations on its capacity, output and ability to expand efficiently.

In some cases, the plaintiff's costs might be sufficiently raised and/or its output sufficiently constrained that it would be forced to exit. However, in other cases, the plaintiff might remain viable, but its ability or incentive to constrain the market power of the dominant firm may be significantly lessened by higher costs or reduced output or ability to expand. Its ability to compete may be sufficiently marginalized by the higher costs or reduction in its customer base that its incentives to invest will be significantly reduced, as discussed earlier.[127] The rule of reason also would evaluate other ways in which the competitive process is weakened.[128]

At the same time, the fact that one or more rivals suffer from foreclosure does not automatically imply that there is consumer harm. The rule of reason analysis under the RRC paradigm also would evaluate "power over price," whether the foreclosure likely would permit the defendant to achieve, enhance, or maintain market power that could lead to consumer harm.[129] This

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[126] A mechanical approach of measuring foreclosure simply by the fraction of customers or suppliers restrained by agreements can lead to error.

[127] *See supra* Part II.

[128] Discounts triggered by market share may deter a customer's purchases from a rival that do not even come at the expense of the dominant firm. For example, suppose in light of the discounts, the customer is purchasing 90 units from the dominant firm and 10 from the rival in order to achieve a "reward" that comes from purchasing 90% from the dominant firm. Now suppose that entrant offers a new product that would lead the customer to wish to continue to purchase 90 units from the dominant firm but now 15 units from the rival. The purchase of these additional 5 units from the rival does not come at the expense of the dominant firm. Yet, even if the entrant were to offer the 5 units at cost, these purchases would be deterred because the customer would fall below the 90% trigger for the reward. In this way, the market share discount can directly reduce market output, even aside from the direct effects on competition between the two firms. For further discussion, see Joseph Farrell, Janis Pappalardo & Howard Shelanski, *Economics at the FTC: Mergers, Dominant-Firm Conduct, and Consumer Behavior*, 37 REV. INDUS. ORG. 263 (2010); Patrick DeGraba, *Naked Exclusion by a Dominant Supplier: Exclusive Contracting and Loyalty Discounts* (FTC Working Paper No. 306, Nov. 2010), www.ftc.gov/be/workpapers/wp306.pdf; Joseph Farrell, Director, Fed. Trade Comm'n, Bureau of Econ., Address at the Fourth Annual Searle Research Symposium on Antitrust Economics and Competition Policy: Problems with Loyalty Pricing (Sept. 23, 2011).

[129] *See* NCAA v. Bd. of Regents of Univ. of Okla., 468 U.S. 85, 109 n.38 (1984) (defining market power as "the ability to raise prices above those that would be charged in a competitive market").

step also moves the analysis beyond the measuring of simple foreclosure rates. Consumer injury might be prevented if there were sufficient competition with other non-foreclosed competitors or other products. The rule of reason also evaluates the various types of cognizable consumer efficiency benefits from the conduct in order to determine the net effect on consumer welfare. This is a more accurate way to determine whether a CPP is anticompetitive than a price-cost test.

If CPPs involve lower prices paid by direct customers relative to the but-for world, then CPPs can benefit consumers. This can occur if the payments are passed-on to consumers in the form of lower prices or by increasing non-price competition so that quality-adjusted prices would fall. However, pass-on may not occur for a number of reasons, including the way in which the payments are structured, whether the conduct involves inputs or customers, and the impact on competitors.[130] Various other efficiency benefits of exclusive dealing in principle also could apply to CPPs. CPPs might lead to more promotion of the firm's product.[131] Like exclusive dealing, CPPs also might permit the firm to achieve economies of scale, reduce risk, or expand the market.[132]

From the viewpoint of consumers, however, these efficiency benefits may come at a significant cost of reduced competition. The "upward pricing pressure" from raising rivals' costs may more than offset the "downward pricing pressure" from incentivizing the additional promotion. Thus, it is necessary to evaluate the net impact on consumers. This analysis would implicate the possible market power of the excluding firm. This rule of reason analysis also would include evaluation of whether the benefits are "conduct-specific," that is, whether the exclusion is "reasonably necessary" to achieve the consumer benefits.[133] In carrying out this analysis, the relevant competitive benchmark would be the unconditional prices that would occur absent the loyalty discount plan and the reasonably less restrictive ways to achieve the efficiency benefits.

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[130] For example, lump-sum payments are less likely to be passed on by distributors than variable payments. Ex post rebates are less likely to be passed on if their magnitude is unclear. Offering higher prices to input suppliers for exclusivity will not lead the suppliers to reduce their prices. If a monopolist provides per unit payments to input suppliers, it would have an incentive to raise its own prices in response. If the CPP causes the competitors to have higher costs or reduced output, the excluding firm is more likely to raise or maintain its own prices, reducing the likelihood of sufficient pass-on to benefit consumers on balance.

[131] *See, e.g.*, Jacobson, *supra* note 51, at 357–60; Klein & Lerner, *supra* note 110; Benjamin Klein & Joshua D. Wright, *The Economics of Slotting Contracts*, 50 J.L. & ECON. 421 (2007).

[132] Richard M. Steuer, *Customer-Instigated Exclusive Dealing*, 68 ANTITRUST L.J. 239 (2000); Benjamin Klein & Kevin M. Murphy, *Exclusive Dealing Intensifies Competition for Distribution*, 75 ANTITRUST L.J. 433 (2008).

[133] United States v. Brown Univ., 5 F.3d 658, 679 (3d Cir. 1993); Chicago Prof'l Sports Ltd. P'ship, 961 F.2d 667, 675–76 (7th Cir. 1992); Bhan v. NME Hosps. Inc., 929 F.2d 1404, 1413 (9th Cir. 1991).

This type of analysis also is relevant if the CPPs are claimed to be a way for a firm to charge the monopoly price on non-contestable demand and the competitive price on contestable demand. This price discrimination is not necessary economically efficient or beneficial to customers and competition. In particular, if there is sufficient competition for the contestable units, competition can force the uniform price down to that level, with inframarginal (non-contestable) units also getting the benefit of that lower price.

IV. THE INCREMENTAL PRICE-COST TEST

Application of the predatory pricing paradigm to CPPs would use a threshold price-cost test as a required prong of the rule of reason analysis. Two alternative price-cost tests might be suggested. One test would simply compare the firm's total revenue for all units sold to its total variable costs, which amounts to comparing the firm's average price (including discounts) to its average variable cost. This might be denoted as an "average" price-cost (APC) test. This would be a very permissive test because it would involve a mixture of high price and low price units.

A second price-cost test compares the firm's incremental revenue on the extra ("contestable") volume achieved as a result of the discount on the additional units sold to the incremental costs of providing that extra volume. This test has been the focus of most analysis of CPPs. I will refer to this test as the "incremental" price-cost (IPC) test.[134]

To illustrate the mechanics of the two alternative tests, suppose that a monopolist initially is charging the monopoly price of $100. In the face of emerging competition, suppose that the monopolist offers a lower price of (say) $95 to customers that will accept exclusivity but continues to charge $100 to customers that purchase any amount from the entrant. Suppose that every customer accepts the exclusivity agreement. In this situation, the comparison of total revenue (after taking discounts into account) to total variable costs in the APC test would compare the $95 exclusive price to the firm's average variable cost. Thus, as long as the monopolist's average variable cost on its entire production is less than $95, it would pass the test.

The IPC test instead is focused on the effect of the CPP on incremental sales made by the dominant firm. Suppose that it can be determined that absent conditions, every customer would have purchased 90 units from the dom-

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[134] This also has been denoted as a "discount attribution" test. *See, e.g.*, Cascade Health Sols. v. PeaceHealth, 515 F.3d 883, 901 (9th Cir. 2008); ANTITRUST MODERNIZATION COMMISSION, *supra* note 121, at 83; *see also* Jacobson, *AMC's Proposed Test*, *supra* note 121; Jacobson, *Loyalty Discounts*, *supra* note 121; Eur. Comm'n, *Guidance on the Commission's Enforcement Priorities in Applying Article 82 of the EC Treaty to Abusive Exclusionary Conduct by Dominant Undertakings*, 2009 O.J. (C 45) 7 (Dec. 3, 2008).

inant firm at $100, plus additional units from the entrant. Thus, the monopolist sells 10 extra units as a result of the CPP. These 10 incremental units sometimes are referred to as contestable volume, while the 90 other units sometimes are referred to as the "non-contestable" volume.[135]

The comparison of incremental revenue and incremental cost involves the following calculations. Absent the CPP, the monopolist would have earned total revenue of $9,000 (i.e., 90 units x $100) on the non-contestable volume. By contrast, the CPP leads the customer to purchase 100 units from the monopolist at a price of $95 for total revenue of $9,500. Thus, the monopolist firm earns incremental revenue of $500 on the 10 incremental (contestable) units, that is, $50 per incremental unit. This $50 average revenue on the incremental units can be denoted as the "incremental price." The dominant firm will pass the IPC test if its average incremental cost for those 10 contestable units is less than the incremental price of $50.

If the predatory pricing paradigm is to be applied to CPPs, it would make more sense to apply the IPC test rather than the APC test. However, if passing the IPC test is treated as a safe harbor, or tips the scale towards legality, it can lead to false negatives. For example, suppose that other evidence shows that the monopolist would have been forced to charge an even lower price, say $93, to meet the competition from the entrant in the absence of the CPP strategy, in which case consumers would have benefited from two brands competing at a lower price.[136] The CPP in this case leads to the higher $95 price, relative to the $93 that would occur absent the CPP.

The IPC test in principle also might be used by the defendant as part of an antitrust injury analysis. It might be argued that a competitor facing the potential of foreclosure has a burden of demonstrating that its injury was not self-inflicted, i.e., that it undertook countermeasures that were reasonably available to it, such that its injury can be fairly attributed to the anticompetitive effects of the conduct. This counterbidding also could raise the defendant's cost of exclusion, which might deter some attempts to exclude. If the plaintiff did not bid up to the level of its costs, it thus might be deemed unworthy of antitrust protection. In this regard, it sometimes is assumed that the IPC test

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[135] As noted earlier, the term non-contestable volume sounds like demand is perfectly inelastic, but it actually refers simply to significantly more inelastic demand for the defendant's product because of product differentiation.

[136] Application of the predatory pricing paradigm may or may not treat failure of the IPC test as sufficient for liability. Some versions might require the plaintiff also to prove likely recoupment of the monopoly profits. In *Peace Health*, the court did not include an explicit recoupment prong. However, the court does include an antitrust injury prong, which it seemed to view as a type of proxy for harm to competition. *PeaceHealth*, 515 F.3d at 910 n.21. Courts also might permit the defendant to show that the loyalty discounts created efficiencies sufficient to offset the harm from higher prices. Adding an explicit harm to competition prong would help to prevent erroneous determinations.

would capture that behavior only if the entrant is equally efficient. Following this reasoning, a less efficient competitor would be unable to outbid the incumbent for non-exclusion while remaining viable. However, it has been further argued that this also is a beneficial feature of the test because competitors are unworthy of antitrust protection unless they are equally efficient.[137]

In contrast, the IPC test evidence might be used as a "sword" for the plaintiff under the predatory pricing paradigm. Suppose that the test indicates that the incumbent is charging an incremental price that does not cover its costs. This evidence can suggest anticompetitive animus and an expectation of success, when neither may exist.

While the IPC test might seem appealing as a useful bright line standard, it actually is fundamentally flawed.[138] First, it is not administratively efficient. It is neither simple nor accurate to implement. Second, the test is not reliable. It commits "false negative" and "false positive" errors, depending on the circumstances. Passing the test does not rule out anticompetitive exclusion and failing the test does not prove anticompetitive exclusion, either most or all of the time and whether or not the entrant is equally efficient. Nor is it the case that only equally or more efficient entrants have procompetitive effects on the market. The IPC test also fails to provide reliable evidence on antitrust injury. While failing the IPC test may have a minor role in inferring anticompetitive purpose, its substantial flaws prevent it from being either a useful threshold test for illegality or a primary evidentiary factor. Instead, courts generally should rely on the RRC foreclosure analytic framework to show harm to competition. At the same time, plaintiffs should be prepared to explain why they failed to obtain sufficient distribution by counterbidding or how their costs were raised.

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[137] Posner, *supra* note 100.

[138] For a different view, see Benjamin Klein & Andres V. Lerner, *Price Cost Tests in Analysis of Single Product Loyalty Contracts*, 80 ANTITRUST L.J. 631, 665–69 (2016). The authors criticize the approach of applying the raising rivals' cost paradigm to CPPs as exclusive dealing. It is noteworthy that they do concede that CPPs can lead to higher list prices, *id.* at 659–60, and that they can be used to achieve exclusive dealing. *Id.* at 661–65. I believe they also understate the various effects discussed here. *See infra* Part IV.B. Specifically, I believe they understate how a CPP can be used either to induce distributors not to provide the distribution input to entrants and the adverse effects of the entrant's coordination issues in bidding against the incumbent monopolist. Klein & Lerner, *supra* at 668 nn.78–79. They also concern themselves solely with the impact of CPPs in competition with equally efficient rivals, which is incorrect in my view, for the reasons discussed in this article. *Id.* at 633–40, 666 n.73 (defending the requirement for an "equally efficient competitor" parameter). They also assume that the only impact of the CPP is to shift market share, not increase total purchases, which they say is commonly the situation in litigated cases. *Id.* at 644. But if output does not change, then the CPP does not raise allocative efficiency.

A. The IPC Test Is Not Administratively Efficient

In the context of plain-vanilla predatory pricing, the IPC test is considered an administratively efficient bright line standard. Whatever one thinks about its efficiency for predatory pricing, it lacks such benefits in the context of conditional pricing practices. In fact, it is complicated to implement and likely leads to measurement errors.

This complexity can be illustrated with the simple CPP example considered earlier. Suppose that a monopolist initially is charging the monopoly price of $100. In the face of emerging competition, suppose that the monopolist offers a discount price of $95 to the "loyal" customers who agree to purchase at least 90 percent of their total purchases from the monopolist and the price of $100 to "disloyal" customers who purchase more than 10 percent from the entrant. Suppose that the monopolist has marginal cost of $60. To make the calculation simple, suppose that all of its other costs already have been sunk and it has no fixed costs.

At the "conditional" price of $95, the monopolist more than covers its marginal costs of $60, so it clearly would be immunized under the APC test. However, the IPC test is more intrusive. This test would compare the firm's incremental revenue resulting from the CPP to its incremental cost of supplying the additional units. Thus, to implement the test, it is necessary to predict how many more units the monopolist's customers would purchase from it at the price of $95 rather than at the price of $100.

This prediction often is not a simple matter. Before the CPP is implemented, the demand at $100 might be observed but not the demand at $95. Or, if the case is brought after the implementation, the demand at $95 might be observed, but not the demand at $100. Demand conditions may have changed in the meantime or the purchases may be made by a new customer. As a result, the two sides often will disagree about the magnitude of the contestable volume because they are relying on different source documents or other calculations. In addition, actual purchases may differ from purchases expected (or alleged to be expected) at the time that the agreement was made. For these reasons, the test often will be somewhat subjective. For all these reasons, the predictions of the test could be incorrect, leading to implementation errors.

Nor can a court evaluate a CPP merely by analyzing a conditional list price schedule that may have been published by the firm. In such schedules, there often are narrow regions where incremental revenue falls short of incremental cost. The results of the test generally will differ among the customers. Consider a customer that would purchase 90 units at the discount loyal price of $95 but only 89 units at the disloyal price of $100. For this customer, the incremental revenue is negative. The price of the one extra unit is swamped by the $5 discount on the 89 units that would have been purchased at the

higher price.[139] By contrast, for the customers that would have purchased only 50 units at the disloyal price, the incremental revenue would be much higher and the IPC test would be passed.[140]

B. FALSE NEGATIVES: PASSING THE IPC TEST IS CONSISTENT WITH ANTICOMPETITIVE EXCLUSION

Using the incremental price-cost test as a threshold "shield" is subject to serious concerns about false negatives. First, the incumbent enjoys a number of inherent bidding advantages that may eliminate its need to charge an incremental price below cost to exclude even an equally efficient entrant, and even when the exclusion harms consumers. While a distributor would retain the nominal choice of whether to accept the exclusive, the effectiveness of its choice is impeded by these bidding advantages that come from the market power of the dominant firm. Second, competition from less efficient competitors into a monopoly market typically increases consumer welfare by causing prices to fall, so a focus on equally efficient entrants can lead to underdeterrence. Third, the nominal price charged to "non-loyal" consumers does not necessarily reflect the competitive benchmark price. In fact, that nominal price may exceed the unconditional price that would be charged absent the conditional pricing practice. It may even be above the monopoly price. In sum, bidding competition generally does *not* require the excluding dominant firm to fail the IPC test, even after including the cost of exclusion in its costs, in order to maintain its market power against an equally efficient competitor. For all these reasons, a dominant firm can use CPPs to achieve, enhance, or maintain market or monopoly power, even without failing the IPC. As a result, focusing on that test is error prone.

1. *Bidding Often Takes Place on a Non-Level Playing Field*

The predatory pricing paradigm and the conventional rationale for the IPC test assume that bidding for distributors or customers takes place on a level playing field. This assumption is generally not the case. A dominant incumbent firm has significant bidding advantages. It may have a timing advantage. It also is bidding to maintain its market power, while the entrant is attempting merely to obtain more competitive profits. A dominant firm may have the additional goal of raising its competitor's costs or foreclosing its access to efficient distribution, not simply selling more output. These differences lead to the monopolist being able to recoup simultaneously with the CPP. These differences also lead to the IPC test lacking probative value.

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[139] In this example, the incremental revenue is *negative* $350, that is, $95 minus $445 (i.e., 89 x $5).

[140] In this example, the incremental sales are 40 units and the revenue is $3550, that is $3800 (i.e., $95 x 40) minus $250 (i.e., 50 x $5), or an incremental price of $88.75 (i.e., $3550/40).

a. No Counterbidding Possible

A dominant firm may tie up customers, distributors, or other input suppliers before the competitors even arrive on the scene or are in a position to counterbid. For example, key distributors may be encumbered by long-term contracts with the incumbent dominant firm. In this situation, bidding competition never even takes place. If the renewal dates of the contracts are staggered, the entrant may not achieve positive profits even after winning a majority of contracts up for renewal the first year or two. As a result, the dominant firm may be able to acquire the exclusive at a very low price.

There can be significant incumbency advantages that lead foreclosure to succeed even when contracts have short duration, including where the exclusives are terminable at will. In each period, the entrant's disadvantage in the bidding competition is identical. Therefore, the fact that exclusive contracts have short terms or have identical termination dates does not eliminate foreclosure concerns.

b. Dominant Firm Is Bidding for Market Power

Even if the bidding competition can occur, and even if contracts are short-term, the incumbent dominant firm or monopolist has an inherent bidding advantage. This is because maintaining market power is inherently more valuable than achieving viability in a competitive market. If the dominant firm wins the bidding contest, that outcome will allow it to maintain its market power and monopoly profits. In contrast, if the entrant wins the bidding contest and obtains the necessary input, its entry may succeed but the entrant would only be able to obtain lower, more competitive profits. In this sense, the dominant firm is attempting to purchase market power as well as distribution, whereas the entrant is attempting to purchase only distribution. For this reason, the monopolist's bidding advantage, while following naturally from its incumbency and monopoly power, does not deserve protection by the antitrust laws.

This point is straightforward to illustrate with an example of foreclosure for a distribution services input. Suppose that a firm is earning annual monopoly profits of $200, which would be maintained if it deters the entry of the new competitor. Suppose that successful entry by an equally efficient competitor would lead to the dominant firm and the entrant both earning annual profits of $70, so that total industry profits would be $140. The lower total industry profits occur because of the price competition resulting from successful entry. For simplicity, suppose the entry can succeed only if the entrant obtains non-exclusive distribution services input from a specific critical distributor.

The analysis here focuses on competition for distributors, where the bidding by the monopolist involves an annual lump-sum payment for exclusive

distribution while the bidding by the entrant is for non-exclusive distribution. The entrant only attempts to obtain non-exclusive distribution because it realizes that the distributor would be unwilling to provide exclusivity in light of the entrant's status as a smaller competitor or because it places no value on exclusivity.

In this simplified example, the entrant would be willing to bid an annual lump-sum payment of no more than $70 for its non-exclusive distribution. But the dominant firm would be willing to bid a fixed payment up to $130 for exclusive distribution (which eliminates the entrant's non-exclusive distribution), the difference between its monopoly profits of $200 and the duopoly profits of $70.

In this example, the monopolist would win the bidding and maintain its pre-entry exclusivity and market power with the critical distributor for a fixed payment of only $71. At this payment level, the profit of the equally efficient competitor would have been negative (i.e., $70 – $71) if it had won the bidding, once the market price adjusts downward to the competition. But, the monopolist's incremental profits (evaluated at the pre-entry monopoly price) from achieving exclusivity are $129 (i.e., $200 – $71), which is positive even after subtracting out the payment for the exclusive. This is because of the entry-destroying effects and monopoly-preserving effects of the exclusive. Note also that since the monopolist continues to earn a profit of $129, it will pass the IPC test. Yet consumers are made worse off.[141]

In fact, even if the entrant were somewhat more efficient, it might still be unable to outbid the monopolist. This reinforces the point that the incumbent's bidding advantage does not deserve antitrust forbearance. For example, suppose successful entry would lead to the more efficient entrant earning profits of $100 and the monopolist earning profits of only $70. In this scenario, the entrant would be willing to bid up to $100. But the monopolist would be willing to bid up to $130. So once again, the monopolist will prevail, now with a winning bid of $101. The monopolist still is able to preserve its monopoly power, though it now is sharing more of its monopoly profits with the distributor. And, again, it will pass the IPC test.

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[141] The analysis has assumed an annual lump-sum payment rather than a long-term contract. The latter would replace the annual profits with the net present value of profits. The analysis also has assumed that the bidding involves a lump sum payment, rather than a lower unit price. This latter assumption could create downward pricing pressure on the distributors' prices that would need to be taken into account in the competitive effects analysis. If the lower price is structured in a way that it is passed on, then the lower prices could lead to a consumer benefit that would need to be balanced against the upward pricing pressure from the elimination of entry competition. However, pass-on cannot simply be assumed.

These examples also illustrate the point that the anticompetitive conditional pricing practice does not involve discrete predatory and recoupment periods, as in the case of classical predatory pricing. Instead, the recoupment occurs *simultaneously* with the conduct. This is because the monopolist is able to maintain its current monopoly power through the exclusionary conduct.

Counterbidding by the entrant for non-exclusion can be an even weaker constraint when there is sequential bidding for multiple critical distributors. For example, suppose there are two retailers and it is necessary for the entrant to obtain non-exclusive distribution at both in order to be viable.[142] Suppose that the negotiations over exclusivity at the two stores are sequential. In this scenario, the entrant would have no incentive even to try to outbid the monopolist at either store. The steps to the explanation of this result are straightforward, once the sequential bidding process is unpacked.

Suppose that the entrant did win the bidding competition at the first store by paying some amount *$X*. However, in bidding for distribution at the second retailer, the monopolist would be willing to bid up to $130, as above, whereas the entrant would not be willing to pay more than $70.[143] This means that the monopolist surely will win the exclusive at the second retailer, which means that the entry will fail. Now, looking back again to the negotiations at the first store, the entrant would have lacked any incentive to pay the *$X* to gain distribution at the first store. This is because the entrant rationally would anticipate that it is inevitable that it would fail to win distribution at the second retailer in the face of the bidding competition by the monopolist, and its entry would fail. Thus, it would not have an incentive to bid for the first store, once it understood the impediments. As a result, the monopolist will be able to gain the exclusive at both stores for very little. This also means that the monopolist clearly will pass the IPC test. Again, the use of the IPC test leads to false negatives.

c. Counterbidding Raises Entrant's Costs

The rival's very act of counterbidding to prevent the monopolist from excluding also can raise the entrant's own costs. For example, consider the case of a monopolist currently purchasing from two highly competitive input suppliers that sell a specialized input, in addition to using some input that it produces itself. Suppose that a new entrant is not integrated and requires the inputs being sold by these input suppliers. In response, suppose that the monopolist offers the two suppliers higher input prices in exchange for a promise

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[142] The same analysis would apply if there were more than two distributors critical to the entrant.

[143] The entrant would be willing to pay only $70 – *$X*, if it irrationally were to ignore the fact that the *$X* was already a sunk cost.

not to supply its new competitor, or not to supply it with very much of the input.[144] Suppose that one of the suppliers accepts the monopolist's offer, which in turn permits the remaining supplier to charge a higher input price to the new entrant.[145]

In this scenario, the entrant is not totally excluded. It does gain access to the input. But, the entrant's costs will be raised and it will have the incentive to charge a higher price to consumers, reducing the competitive impact of its entry. This reasoning also illustrates the flaws in a total foreclosure standard. It also indicates why the IPC test is not a useful screen. There is no reason to expect that the monopolist will have to pay so much more for the input that it will be placed in a loss position.

d. Counterbidding and Coordination Problems

The entrant also faces a coordination problem when it needs to gain distribution from multiple distributors in order to be viable. It may be the case that no individual distributors will be willing to forgo the CPP exclusivity payment from the monopolist even if the entrant offers a larger payment. Each distributor may fear that the entry will fail and it will end up forgoing the payment offered by the monopolist with no offsetting benefits. This can create an adverse self-fulfilled expectation, whereby each distributor forgoes dealing with the entrant out of a fear that the entry will fail simply because enough other distributors will choose to accept the CPP exclusivity from the monopolist out of their fears that others will do the same.[146] This fear also may disincentivize the entrant from investing resources in initial distributors in anticipation of making subsequent deals with enough distributors. This is a possibly fatal problem if the distributors cannot coordinate their responses to the monopolist's and entrant's offers. While this does not mean that exclusion is inevitable, it does mean that the entrant faces an additional hurdle. In addition, the hurdle may raise the entrant's variable costs, if it has to compensate the distributors for their perceived risk. These higher costs will make the entrant a weaker competitor.[147] Here too the IPC is not a useful screen.

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[144] For the seminal analysis of this scenario, see Oliver E. Williamson, *Wage Rates as a Barrier to Entry: The* Pennington Case *in Perspective*, 82 Q.J. ECON. 85 (1968).

[145] Krattenmaker and Salop refer to this scenario of the unrestrained input supplier's gaining market power from the exclusivity as the "Frankenstein Monster" scenario. Krattenmaker & Salop, *supra* note 12, at 240. For similar analysis in the context of a vertical merger, see Ordover et al., *supra* note 53.

[146] For the basic economic analysis in the context of exclusive dealing, see sources cited *supra* note 65.

[147] This self-fulfilling prophecy analysis would apply to final customers as well as distributors or other input suppliers. In *Lorain Journal*, it does not appear that the *Journal* offered a lower advertising price to advertisers that chose to advertise exclusively with it. Instead, it appears that the *Journal* gave advertisers an all-or-nothing choice. Lorain J. Co. v. United States, 342 U.S.

Entrants may face a different type of coordination problem when the incumbent defendant is targeting multiple smaller competitors with its CPPs. In this situation, counterbidding raises a potential free-riding problem among the targeted competitors. If one targeted competitor convinces a distributor to forgo exclusivity, all the rivals may gain the benefit of achieving non-exclusive distribution. This free-riding problem can reduce the incentives of any one competitor to counterbid, even if coordinated counterbidding by all the competitors would succeed in outbidding the defendant. It indicates another advantage that flows simply from the dominance of the incumbent, not from any efficiency benefits.

e. But Counterbidding Sometimes Can Succeed

The incumbent's bidding advantage is not always prohibitive. This can be shown with a number of fact scenarios. First, the entrant may not have to counterbid if it can use equally cost-effective "direct distribution" to customers. Second, the entrant sometimes can overcome the incumbent monopolist's bidding advantage with significant offsetting cost or quality advantages, including significant product differentiation. This can be illustrated by returning to the earlier example with one critical retailer. Suppose now that, if the entry succeeds, the two competitors each would earn profits of $120, for a total of $240. Given these facts, the monopolist would be willing to bid only up to $80 (i.e., $200 – $120) to exclude the entrant. But, the entrant would be willing to counterbid up to $120 for the non-exclusive distribution to avoided being excluded. Thus, the entrant would be able to outbid the monopolist by bidding above $80 (say, $81) and will be able achieve the critical non-exclusive distribution needed to survive and compete on an equal basis.

The crucial difference between this example and the previous one is that total industry profits here under duopoly competition (i.e., $240) exceed the pre-entry monopoly profits (i.e., $200). This increase in total industry profits is what leads to the entrant having the bidding advantage. Total industry profits can rise when the entrant is producing a sufficiently differentiated product or where it has sufficient cost or quality efficiency advantages over the monopolist. If there also is tacit coordination or parallel accommodating conduct, the reduction in industry profits from entry also will be lessened at the margin, though consumer welfare will not rise by as much.

Third, the entrant also can gain a bidding advantage when it requires only limited non-exclusive distribution. In this situation, the bargaining power is altered and the entry can succeed. In order for the monopolist to exclude successfully, it would need to outbid the entrant at multiple (or perhaps all)

143, 149 (1951). However, this analysis of the self-fulfilling prophecy phenomenon would carry over if the *Journal* had offered such exclusivity discounts to advertisers.

stores. This need to compensate those multiple stores would increase its costs of exclusion, perhaps prohibitively. Under these conditions, the entrant may be able to offset the monopolist's asymmetric incentive to maintain its market power.

To illustrate this dynamic most simply, return to the example above with two retailers and post-entry profits of $200. Suppose now that the entrant requires distribution only at either one of the stores but does not require distribution at both stores. The monopolist can anticipate that the entrant would be willing to bid up to $70 to win at one store. Therefore, the monopolist has to pay $71 to each of the two stores (equal to a total payment of $142) in order to deter the entry. But that total payment of $142 exceeds its "incremental" monopoly profits of $130 from protecting its monopoly. Anticipating that successful foreclosure would be too expensive, the monopolist might not bid a significant amount at either store, if at all. As a result, the entrant would succeed in gaining distribution with a low payment.

In these latter scenarios, the entry can succeed if the entrant attempts to obtain distribution. This shows that exclusion is not inevitable, despite the asymmetric impact of the incumbent's market power. Market power gives the incumbent an advantage in the bidding competition, but the existence of the advantage may not be determinative. The examples also show that the IPC test adds nothing to the analysis. However, the examples indicate that the entrant should be required to explain why it was unable to outbid the incumbent or why attempting to do so would have been economically irrational, given the particular conditions in the market.

Fourth, counterbidding can succeed in scenarios where the entrant already has become a sufficiently established firm so that some customer foreclosure does not raise the risk of causing exit, placing the entrant at a material marginal cost disadvantage, or facing the prospect of losing its incentives to invest. In this situation, each customer may represent a separate opportunity for the entrant. This scenario also is more likely to apply when the CPPs involve bidding for final customers rather than for distributors.[148]

Thus, this analysis also explains that foreclosure is not inevitable. Under certain conditions, the entrant can outbid the incumbent if it tries. In fact, the incumbent sometimes will lack an economic incentive to counterbid. The facts matter.

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[148] This analysis can be applied to *Eisai*. Sanofi and Eisai were bidding for sales to final customers, not distributors. Eisai apparently was not at risk for exit or losing incentives to invest, given that the court also rejected the claims that Sanofi's formulary access agreements and unique indications created substantial bidding advantages. *See* Eisai Inc. v. Sanofi Aventis U.S., LLC, 821 F.3d 394, 406–07 (3d Cir. 2016).

2. *Less Efficient Competitors Have Value to Competition*

It might be argued that the IPC test is useful because only equally efficient competitors are worth protecting by the antitrust laws.[149] However, as discussed earlier, this premise itself makes no economic sense.[150] Entry by a less efficient competitor into a monopoly market that causes lower prices will benefit consumers.

A monopolist may have the incentive to raise the costs of a less efficient potential competitor in order to destroy its prospects of entry into the monopolist's market. To illustrate, assume that the monopolist has marginal cost of $50 and charges a monopoly price of $100. Suppose that there is a potential entrant with marginal cost of $75. If the entry were to occur, the market price would fall below $100. This entry clearly would benefit consumers.[151]

Suppose, however, that the monopolist could raise the entrant's costs above $100 by paying one or more critical input suppliers to refuse to deal with the entrant, so that the entrant would be unable to survive at the monopoly price of $100. This exclusion would permit the monopolist to maintain its monopoly price of $100, which thereby would harm consumers.[152] Or suppose the entrant would be viable, but the exclusives would prevent it from obtaining a significant enough market share to force the monopolist to reduce price substantially. It is hard to see why antitrust should permit exclusionary conduct that would destroy or deter this competition-enhancing entry.[153]

Courts have not generally rejected exclusion claims simply because the victim firms were less efficient competitors. In *Lorain Journal*, the Court condemned the customer foreclosure towards WEOL, which likely was a less efficient entrant.[154] In *Microsoft,* the D.C. Circuit did not inquire into whether the potential operating systems deterred by Microsoft's conduct likely would

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[149] The concept of "equal efficiency" is generally characterized as equal costs. However, when products are differentiated, the concept of equal efficiency is more complex because production differentiation involves the view by consumers that one product is superior to another. If its product is superior, a firm would be viewed as more efficient, *ceteris paribus*. Thus, a producer of a differentiated product that has higher costs would still be viewed as more efficient by some consumers. For further details of this distinction, see Steven C. Salop, *Refusals to Deal and Price Squeezes by an Unregulated Vertically Integrated Monopolist,* 76 ANTITRUST L.J. 709 (2010).

[150] *See supra* Part II and text accompanying notes 97–99.

[151] It often would raise total welfare as well.

[152] The exclusion clearly would be profitable for the reasons discussed already.

[153] It is possible that the fear of the potential entry by the less efficient entrant alternatively would cause the monopolist to engage in a limit pricing strategy. For example, if the perceived potential entrant had constant marginal cost of $75 and high capacity, the monopolist would find it profitable to reduce its price down to $74 in order to deter the entrant. Again, it would not make economic sense for antitrust law to allow the monopolist to deter the entry by raising the entrant's costs and maintaining the $100 monopoly price, rather than by reducing its own price.

[154] Applied to the merger context, the acquisition of such a unique less efficient entrant would violate Section 7 of the Clayton Act unless there were substantial merger-specific efficiencies.

be as efficient as Windows. This approach also makes economic sense for CPP matters. Even if the entrant is less efficient, CPPs can harm competition.

3. *CPPs May Involve Penalty Prices, Not True Discounts*

CPPs may not involve real price reductions. Instead of offering a discount off its initial monopoly price in exchange for exclusivity, the monopolist instead may implement a price *penalty* above the monopoly price for customers that fail to purchase exclusively from it, or fail to purchase enough. In this scenario, there is no true discount and no potential consumer benefit from the CPP strategy. For the same reason, the incremental price-cost test clearly has no predictive power for screening competitive discounts from anticompetitive ones.

To illustrate, suppose that a monopolist is initially charging the monopoly price of $100. In the face of emerging competition, suppose that the monopolist implements a CPP whereby it offers the $100 monopoly price for loyal, exclusive customers but charges a higher price, say $125, for non-exclusive customers. In essence, the monopolist threatens a true price penalty to those "disloyal" customers.[155] This $25 penalty may drive customers to accept the deal, even if they would prefer to purchase more from the entrant at the monopolist's previous unconditional $100 price. Of course, the successful use by the monopolist of the penalty price structure eliminates any benefits to consumers, who continue to pay the monopoly price of $100. Once again, recoupment occurs simultaneously with the exclusionary conduct.

In this scenario, the IPC test would not necessarily identify any profit-sacrifice by the dominant firm.[156] If the price for disloyal customers is set above the monopoly level, it would be less profitable for the monopolist by definition. Thus, the incremental sales gained at the monopoly price necessarily would increase its profits. As a result, the monopolist's CPP certainly would pass the IPC test.

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[155] For economic analysis of penalty prices in the context of bundled discounts, see Barry Nalebuff, *Exclusionary Bundling*, 50 ANTITRUST BULL. 321 (2005); Patrick Greenlee, David Reitman & David Sibley, *An Antitrust Analysis of Bundled Loyalty Discounts*, 26 INT'L J. INDUS. ORG. 625 (2008). Klein and Lerner also explain that CPPs likely do lead to list prices that are higher than the uniform price that preceded the imposition of the CPPs and that these conditions may support de facto exclusive dealing. Klein & Lerner, *supra* note 138, at 660.

[156] In this scenario, there is no profit-sacrifice because no customer actually purchases at the $125 price. The penalty price is just used as a threat point to induce consumers to accept the $100 exclusive price. As a result, the dominant firm never sells any units at the penalty price when the threat succeeds. Professor Crane has suggested that a threatened penalty price above the profit-maximizing, monopoly price is not credible. Crane, *supra* note 121, at 462. But his claim ignores the fact that the threat can be made credible by embedding it in the CPP contract.

4. *Discounts and Effects Must Be Evaluated Relative to the "But-For World"*

A false negative issue also arises when a CPP discount price exceeds the competitive benchmark price that would occur in the "but-for world," that is, the price that would occur if the CPP were prohibited. For example, suppose that the monopolist initially is charging a unit price of $100, selling 100 units and earning revenue of $10,000. Suppose that it begins to face an entry threat by an entrant selling a differentiated product with marginal cost of $75. Suppose that the monopolist in response offers a price of $95 conditional on exclusivity, and customers agree to purchase 120 units at that lower price, which would yield the monopolist revenues of $11,400 (i.e., 120 x $95). Using the $100 price as the benchmark price for the IPC test, the monopolist would be said to earn incremental revenue of $1400 on the 20 incremental units, or $70 per unit. Suppose that the monopolist has marginal costs of $50, so that it passes the IPC test.

Suppose, however, that if the monopolist were not permitted to offer a loyalty discount and instead were required to charge a single price for all units, it would not charge $100. Suppose that its profit-maximizing strategy would be to undercut the entrant's costs and charge an unconditional "limit price" of $74. Using $74 as the price in the "but-for world" presents a totally different picture. Now consumers are paying $21 more (i.e., $95 – $74) than the benchmark price, as a result of the CPP, not $5 less. Or, in a less extreme case, suppose the monopolist would find it profit-maximizing to charge a price of $85, whereby the entrant would survive.

One might consider evaluating the IPC test using the "but-for world" competitive benchmark price instead of the pre-entry price. But this approach makes little sense. Once the plaintiff successfully demonstrates the level of the "but-for world" competitive benchmark price, then there is no real need to carry out the IPC test. The court can simply evaluate whether the conduct is anticompetitive on the basis of the comparison between the actual price versus this benchmark price. The IPC test adds nothing to the rule of reason analysis.

The IPC's lack of value-added is shown by the Third Circuit's analysis in *Eisai*. The court found it unnecessary to reach the issue of whether or not the IPC test should apply to Sanofi's use of a loyalty discount to bundle incontestable and contestable demand. As stated by the court,

> Eisai alleges that its rival, having obtained a unique FDA indication, offered a discount that bundled incontestable and contestable demand. On Eisai's telling, the bundling—not the price—served as the primary exclusionary tool. Because we have concluded that Eisai's claims are not substantiated

> and that they fail a rule of reason analysis, we will not opine on when, if ever, the price-cost test applies to this type of claim.[157]

The court's approach—premised on its factual determinations—also explains why the IPC test is unnecessary. If the plaintiff fails to show anticompetitive effects, it loses. Once its showing fails, there is no benefit to the court of adding the IPC test. The same point applies to the situation where the plaintiff is able to show anticompetitive effects. If competitive harm is demonstrated, there is no need to add the IPC test. The only possible effect of adding the test would be possibly to cause a false negative.

C. FALSE POSITIVES: FAILING THE IPC TEST DOES NOT PROVE ANTICOMPETITIVE EXCLUSION

The analysis in the previous section has explained why passing the IPC test is subject to false negative errors. However, there are several reasons why the IPC test also can create false positive errors. First, a negative region in the conditional pricing schedule does not automatically mean that any real-world distributor is purchasing in the region where the IPC test is failed. Second, even if there are below-incremental cost prices for some distributors, the resulting input or customer foreclosure may not be sufficient to cause material harm to the entrant. For example, consider the scenario where a new entrant needs to obtain only a single distributor but the monopolist outbids the entrant at some other distributors, or where the entrant can rely on cost-effective direct distribution. Third, there may be sufficient other competitors that are not excluded, so that the firm is unable to maintain or achieve monopoly power. Fourth, there may be sufficient procompetitive benefits flowing from the conduct that prevent consumer harms.

D. IPC TEST AS A PRUDENTIAL SAFE HARBOR

This analysis has explained why a threshold incremental price-cost could lead to significant false positives and false negatives. Notwithstanding these errors, some might argue that the IPC test can serve as a one-sided "prudential" safe harbor test to protect against false positives.[158] However, this argument does not make economic sense because the IPC test is neither prudent nor simple. It is difficult to implement and there is no clear nexus between the results of the test and the competitive effects of the CPP.

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[157] Eisai Inc. v. Sanofi Aventis U.S., LLC, 821 F.3d 394, 409 (3d Cir. 2016).

[158] Gregory J. Werden, *supra* note 21, at 418 ("[S]ome potentially exclusionary conduct is appropriately placed in a prudential safe harbor, and thus is not subject to any test."); AREEDA & HOVENKAMP, *supra* note 121, ¶ 749e, at 342.

Discarding the IPC test as a possible "safe harbor" is the proper outcome for this unreliable predictor. If a safe harbor is desired, the better alternative would be to evaluate the market power of the defendant. If the defendant lacks market power, the use of CPPs to achieve monopoly power is less likely to succeed.

E. IPC Test and Antitrust Injury

The IPC test also should not be the centerpiece of analysis of antitrust injury. It should not be sufficient for the plaintiff to show that the monopolist's incremental prices fall short of incremental costs. Instead, the entrant should be ready to explain how its costs were raised or why the CPPs have led to barriers to entry or expansion or other impediments to competition.

The plaintiff also should be prepared to explain why it could not rely on direct distribution. It also should be prepared to explain why its counterbidding failed, or why it reasonably failed to attempt to counterbid. The examples and analysis here provide some rationales, but they must be supported by facts.

F. Failing the IPC Test as Evidence of Anticompetitive Purpose

If the monopolist sets a price below its marginal cost, that pricing would appear to be economically irrational for a profit-maximizing firm. The firm would be losing money on those marginal sales. Therefore, it would have been more profitable to set a somewhat higher price and sell less. Absent another justification for the below-cost prices, a court might infer that the goal of the pricing must have been to discipline or destroy the rival.

This use of the IPC test would be one-sided. While failing the test arguably indicates anticompetitive purpose, passing the test does not indicate procompetitive purpose, or that the defendant's conduct is procompetitive or competitively benign, for the reasons discussed earlier. Of course, failing the test also does not prove anticompetitive harm. The conduct may be efficient, there may be sufficient other competitors, and so on. And the potential errors in implementing the test also reduce its probative value.

V. PRICE AS THE PREDOMINANT MECHANISM AND PREDATORY "CONDITIONAL" PRICING CLAIMS

As noted earlier, the Third Circuit has opined that it would use a price-cost test if price were the "predominant mechanism" for exclusion.[159] This raises

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[159] ZF Meritor LLC v. Eaton Corp., 696 F.3d 254, 273–74 (3d Cir. 2012) ("We do not disagree that predatory pricing principles, including the price-cost test, would control if this case presented solely a challenge to Eaton's pricing practices."); *see Eisai*, 821 F.3d at 409.

the question of what it means for price to be the predominant mechanism. This article suggests that when prices are made conditional on purchase shares, the condition itself can be treated as the predominant mechanism. This view is not inconsistent with the analysis or conclusions in *Eisai*. Moreover, it also suggests that Eisai (or other plaintiffs) might bring separate counts against alleged predatory *conditional* pricing under a modified *Brooke Group* test.

In *Eisai*, the court applied the RRC foreclosure paradigm and concluded Eisai had failed to introduce sufficient evidence of anticompetitive effects.[160] Given their other findings, the court essentially rejected the claim that the condition mattered in that case. First, the court was very skeptical that Sanofi's unique cardiology indication led to significant non-contestable sales.[161] Second, the court did not think that the no-steering provision in the formulary access agreement or the alleged deception were significant barriers to customers purchasing more from Eisai.[162] Third, Eisai was an established firm selling directly to final customers rather than distributors with low marginal cost.[163] Given these determinations, the court concluded Eisai had the ability to compete on price. Moreover, Eisai apparently gained substantial sales when it cut its prices.[164] In fact, the district court also indicated that Eisai offered its own conditional price discounts[165] and had its own unique indication.[166] These findings supported the court's conclusion that there was no harm to competition.

Even if this RRC allegation were rejected, however, Sanofi's pricing in principle still could have constituted predatory conditional pricing. The district court concluded that Sanofi passed a price-cost test. However, that court apparently applied only the APC test (using the discounted prices).[167] For a predatory conditional pricing claim, the appropriate price-cost test would be the IPC test, not the APC test. Sanofi's pricing may have failed the IPC test. In fact, a Table in the district court opinion that reproduces Sanofi's discount schedule suggests that Sanofi's prices would fail the IPC test over a broad

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[160] *Eisai*, 821 F.3d at 407–08.

[161] *Id.* at 406.

[162] *Id.* at 406–07. As a factual matter, this view of the formulary access clause is questionable on summary judgment. The agreement apparently would cause a hospital chain's discount to fall from 30% down to a 1% discount if it steered even one prescription at one hospital in the chain from Sanofi to Eisai. However, for purposes of this analysis, this article takes the court's findings as a given.

[163] *Id.* at 407.

[164] Eisai Inc. v. Sanofi-Aventis U.S., LLC, No. 08-4168, 2014 WL 1343254, at *27–28 (D.N.J. Mar. 28, 2014).

[165] *Id.* at *11.

[166] *Eisai*, 821 F.3d at 406.

[167] *Eisai*, 2014 WL 1343254, at *30

range.[168] For example, for the highest customer tier, comparing the prices conditional on a customer purchasing 90 (or 99) percent versus 74 percent of its needs from Sanofi, Sanofi's incremental revenue from those 16–25 percent point incremental purchases would not only fall below positive marginal costs but also would be *negative*. Sanofi would earn more revenue from supplying 74 percent of the customer's needs than 90 (or 99) percent.[169] While the opinion does not provide information on hospital purchase shares or estimate the impact of the CPP on those shares, a fuller analysis of the IPC would do so.

This analysis highlights three points. First, courts in CPP cases may not have to choose between the RRC foreclosure paradigm and the predatory pricing paradigm. They can apply both types of analysis to evaluate whether or not the conduct violates the Sherman Act under either of the two separate theories. Second, to drive this dualistic analytic, plaintiffs might include both counts in their complaints—one flowing from the RRC foreclosure paradigm and a separate one flowing from the predatory pricing paradigm. That approach would ask the court to apply the price-cost test only to the predatory conditional pricing count. Third, antitrust analysis of CPPs under the predatory pricing paradigm of *Brooke Group* should apply the IPC test, not the APC test.

VI. CONCLUSION

This article has explained why CPP allegations generally should be analyzed under the RRC foreclosure paradigm, not the predatory pricing paradigm. This analysis should apply the rule of reason, and not use the IPC test as a threshold test to screen out allegedly unmeritorious or weak claims. That use of the IPC test does not lead to either rigorous or accurate antitrust analysis. It is instead a path to higher error rates. While consumers benefit from true discounts below the competitive benchmark price that would occur in the "but-for world," the mere potential for lower prices does not provide a sufficient basis for adopting an IPC test as a screen for CPPs.

This article is not advocating a per se rule against CPPs. Instead, it is advocating that modern courts do not need to rely on the defective APC or IPC

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[168] *Id.* at *4.

[169] For the highest-revenue tier customers, paying 70% of list price (i.e., a 30% discount) on 90% (or 99%) of needs would be less expensive than paying 99% of list price (i.e., a 1% discount) on 74% of needs. This is also the case for the second-highest tier, where the top-end discount is 27%. For all but the lowest tier of customers, paying 79% or less of list price (i.e., a discount of at least 21%) on 90% of needs would generate less revenue than paying 99% of list price on 74% of needs. Incremental revenue is positive for purchases of 99% of needs for these other tiers, and for 90% of needs for the lowest tier customers. But, the IPC test would need to take into account Sanofi's marginal costs (including marketing commissions), which would make it more likely that the test is failed.

tests to protect consumers and to protect the firms that offer CPPs. Nor does this article advocate that courts should rely on simple-minded foreclosure rates. Instead, a better approach is to require the plaintiff to carry the burden of having to prove harm to competition under the rule of reason standard using the analytic framework set out in the RRC foreclosure paradigm. This standard would require evidence that the CPP harms the targeted rival(s) and that it also harms consumers and the competitive process by allowing the defendant to achieve, maintain, or enhance its market power. As part of an antitrust injury analysis, the plaintiff also would explain why it was unable to obtain sufficient distribution by counterbidding for distribution or why its costs were raised. However, this latter analysis would examine the bidding process, not a price-cost comparison.

This article also has explained that courts do not need to choose between the RRC foreclosure and predatory pricing paradigms for CPPs. A complete analysis could apply both types of analysis to evaluate whether or not the conduct violates the Sherman Act, depending on how the plaintiff frames the complaint. The rule of reason under an extended-*Brooke Group* analysis for predatory conditional pricing should include an explicit harm to competition prong, not simply likely recoupment. It also should use the IPC test, not the APC test.

Finally, the IPC test is sometimes defended on the grounds that it is necessary for counseling purposes. However, the IPC test is neither easy to administer nor reliable in its predictions. There also are alternatives. Counselors have long been advising clients with respect to exclusive dealing programs using the traditional rule of reason. That advice can be used for conditional pricing programs as well. Basing advice on the assumption that the CPP will lead in effect to exclusive dealing (or near-exclusive dealing) for affected distributors can be a useful starting point for the counselor. Another key indicator is the market power of the firm. Other factors are the fraction of sales made by affected distributors, whether the competitors need to obtain broad distribution to compete effectively, whether competitors have cost-effective alternatives to the foreclosed distributors and any cost penalty they will suffer from the alleged foreclosure, and the competitive constraints placed on the firm by other competitors and other products. A counselor also would want to determine the client's true rationale for wanting to adopt the CPP program and whether the CPP is the least restrictive means to achieve a procompetitive benefit. Use of these factors also would lead to better predictions of the competitive effects of the CPP than calculation of the APC or IPC tests.