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## Getting Exclusion Cases Right: *Intel* and Beyond

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### I. INTRODUCTION

The continuing fire over how to assess the competitive effects of single-firm conduct received yet more gasoline in the wake of the U.S. Federal Trade Commission's (FTC) settlement of its antitrust case against Intel.<sup>2</sup> The key issue in the case was whether Intel's offering of "loyalty" discounts and other benefits to computer makers that purchased all or most of their microprocessor chips from Intel created an incentive to limit purchases of chips from Intel's rivals, primarily AMD.<sup>3</sup> My purpose here is not to re-litigate the case or take a position on whether the outcome was supported by the evidence. Rather, it is to use the *Intel* case to illustrate how the law should examine exclusion cases to see whether any anticompetitive harms—increases in prices consumers pay—are likely.

Among other differences with my approach, the standard framework for analyzing exclusion cases treats buyers who sign exclusive dealing contracts, or arrangements that impose penalties for dealing with rivals, as victims of monopoly coercion. These views of exclusion as coercion, and buyers as victims, are shared by both proponents and critics of cases, as illustrated by Joshua Wright's critique of the FTC's *Intel* case.<sup>4</sup> Following a brief summary of my framework<sup>5</sup> and a look at Wright's critique,<sup>6</sup> I conclude by suggesting seven reforms to the assessment of exclusion cases that should improve how to identify when anticompetitive effects are present, reduce attention on irrelevant or superfluous considerations, and promote remedies

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<sup>2</sup> U.S. Federal Trade Commission, Decision and Order, In the Matter of Intel Corporation, Docket No. 9341, Oct. 29, 2010. The FTC brought this Intel case as "unfair competition" under Section 5 of the Federal Trade Commission Act rather than as a "monopolization" case under Section 2 of the Sherman Antitrust Act. For purposes here, I do not distinguish between the two; whether there are or should be different standards for Section 5 cases and Section 2 cases is a matter of continuing debate. On the benefits of bringing competition cases under Section 5, see Jon Liebowitz (Member and later Chairman, U.S. FTC), *Tales from the Crypt: Episodes '08 and '09: The Return of Section 5*, FTC Workshop: Section 5 of the FTC Act as a Competition Statute, Washington, DC (Oct. 17, 2008), available at <http://www.ftc.gov/speeches/leibowitz/081017section5.pdf>. For a critique, see Geoffrey Manne, *The FTC's Misguided Rationale for the Use of Section 5 in Sherman Act Cases*, CPI ANTITRUST J. (Feb. 2010), available at <http://ssrn.com/abstract=1562489>.

<sup>3</sup> The FTC's case included conduct beyond loyalty rebates. U.S. Federal Trade Commission, Complaint, In the Matter of Intel Corporation, Docket No. 9341, Dec. 16, 2009.

<sup>4</sup> Joshua Wright, *Does Antitrust Enforcement In High Tech Markets Benefit Consumers? Stock Price Evidence From FTC v. Intel*, 38 REV. INDUS. ORG. 387-404, 390 (2011).

<sup>5</sup> This framework appeared earlier here; see Timothy Brennan, *The Complement Market/Final Consumer Distinction: Exclusion & Predation in the U.S. Department of Justice Section 2 Report*, CPI ANTITRUST CHRON. 1-12 (Oct. 2008, 1): 1-12. For more extensive discussions, see Timothy Brennan, *Bundled Rebates as Exclusion Rather Than Predation*, 4 J. COMPETITION L. & ECON. 335-374 (2008); Timothy Brennan, *Saving Section 2: Reframing U.S. Monopolization Law*, THE POLITICAL ECONOMY OF ANTITRUST 417-51 (V. Ghosal & Johan Stennek eds. 2007).

<sup>6</sup> I have already published a critique of Wright's argument; see Timothy Brennan, *High-Tech' Antitrust: Incoherent, Misguided, Obsolete, or None of the Above? Comments on Crandall-Jackson and Wright*, 38 REV. INDUS. ORG. 423-33 38 (2011).

that recognize any efficiencies that exclusive dealing and other potentially exclusionary practices can create.

## II. HOW TO LOOK AT EXCLUSIONARY CONDUCT

We begin by realizing that, with inevitable exceptions, monopolization or abuse of dominance cases fall into two categories. The first category and, in many ways, the archetype for a monopolization case is predatory conduct, primarily predatory pricing. In this category, a monopolist threatens a competitor, or market entrant, with pricing low enough to drive that company out of the market. These kinds of cases have faced two related, generic criticisms over the years. First, it usually takes highly specific conditions to make predation likely or credible; conditions that sometimes require economic irrationality, i.e. that the monopolist would set low prices to keep a high market share even if it were unprofitable to do so.<sup>7</sup> Second, and more practically, those practices that increase a firm's market share of final consumers at the expense of rivals do so, at least in the short run, through activities that competition is supposed to foster, such as charging low prices.

For these reasons, competition policy in the United States places a high, if not insurmountable, burden in bringing predation cases. Such cases require that the monopolist's price be not just low enough to drive out the rival, but be below the monopolist's costs as well.<sup>8</sup> The precise meaning of that standard—Marginal cost? Average variable cost? Average cost?—continues to be debated.<sup>9</sup> My interpretation of the currently used “pricing below cost” rule is as follows: Because of concerns over possible chilling effects on desirable competitive conduct, the minimum requirement for conduct to be illegal is that it should be something that one would *never* see a competitive firm do under any circumstance.

Unfortunately, that same standard has been imported into the second and quite different category, exclusion cases. In these cases, customers of the alleged monopolist typically are not final consumers, but suppliers of an input or complement that is sold with the product. These suppliers are potentially competitors in the market for the complementary good, and the exclusionary conduct, in its essence, is a method to suppress competition among them. For example, in the *Intel* case the core allegation was that Intel offered computer makers discounts in exchange for not purchasing chips from its primary rival, AMD. The anticompetitive effect would then arise because AMD is forced to either pay more for scarce placements on computers or put its chips into inferior alternatives. The benefits show up to Intel and its partners in the computer market as an artificial competitive advantage that allows the computer makers to charge more for computers with Intel chips.<sup>10</sup>

The anticompetitive effect depends entirely on the suppression of competition in the complement market. If Intel's practices did not suppress competition in the market for computers, its practice could not harm AMD. AMD would remain just as able to compete with

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<sup>7</sup> P. Milgrom & John Roberts, *Predation, Reputation and Entry Deterrence*, 27 J. ECON. THEORY 280-312 (1982).

<sup>8</sup> *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209 (1993).

<sup>9</sup> The standard reference for pricing below marginal cost, with average variable cost as a proxy, remains P. Areeda & D. Turner, *Predatory Pricing and Related Practices under Section 2 of the Sherman Act*, 88 HARVARD L. REV. 697-733 (1975). Prices above that level could have similar anticompetitive effects by driving out higher cost competitors whose presence nevertheless would result in prices below the monopoly level; see A. Edlin, *Stopping Above-Cost Predatory Pricing*, 111 YALE L.J. 941-991 (2002).

<sup>10</sup> For a diagram of how this works, see Brennan, *High Tech' Antitrust*, *supra* note 6 at 430.

Intel as before Intel's allegedly harmful practices if: (a) present computer users were not significantly penalized by using AMD chips, (b) enough close substitute computer makers were not covered by the Intel agreements, or (c) entry by new computer makers (including vertical entry by AMD itself) offered sufficiently close substitutes to the computers covered by Intel's agreements. Had Intel's contracts involved only volume discounts, computer manufacturers would remain as able to carry AMD chips without penalty as they were before (absent capacity constraints). In addition, AMD would not be harmed if it could turn to other computer companies or new entrants that produce close substitutes to the companies participating in Intel's discounting practices.

If these questions look equivalent to those one would ask if the companies participating in Intel's discounting practices were to merge, they are. Exclusion cases should be no more or less controversial in principle than horizontal merger cases generally. Empirically determining the significance of competitive effects from any changed incentives, as could happen in a merger, can be daunting and controversial. However, the underlying story—that mergers of substantial firms selling substitutes can raise prices from either reduced competition between the two merged firms (“unilateral effects”) or increased likelihood of collusion between the remaining firms in the relevant market (“coordinated effects”)—garners wide acceptance.<sup>11</sup>

Here is where the contrast with predation cases is most vivid. In predation cases, the anticompetitive effects depend on the credibility of a strategy of “do too much good now in order to do bad later.” This is necessary because the customers are non-competing final consumers, and there is no competition among them that could be suppressed. Exclusion cases involve practices involving suppliers of intermediate complementary goods rather than final consumers; suppliers who compete with each other. The anticompetitive effect in these cases depends on the creation of market power in a previously competitive market for complements—allegedly computers, in the Intel case. Since creating a new monopoly is not conduct for which “chilling” is a concern, the criteria for exclusionary conduct should not require tests based on the idea that a practice is anticompetitive only if a firm would never engage in it because it loses money.

For these reasons, exclusion cases could and should be usefully characterized as “complement market monopolization” (“CMM”). Unfortunately, since the mid-1980s, the leading term for this practice has been “raising rivals’ costs” (“RRC”).<sup>12</sup> The unfortunate aspect is not that RRC is more or less lenient than CMM. Rather, it is that the terminology has muddied rather than clarified the distinction between predation and exclusion and enhanced skepticism regarding the enforcement of monopolization law. The term RRC says that the relevant dynamic is that between a dominant firm and its rivals, leading analysts to focus on whether the practice is a bad act by a dominant firm and not on whether a complement market

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<sup>11</sup> To take three examples, see the 2010 *Horizontal Merger Guidelines* released by the U.S. Department of Justice and FTC (<http://www.justice.gov/atr/public/guidelines/hmg-2010.pdf>), the 2011 revision of the *Merger Enforcement Guidelines* issued by the Canadian Competition Bureau ([http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/vwapj/cb-meg-2011-e.pdf/\\$FILE/cb-meg-2011-e.pdf](http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/vwapj/cb-meg-2011-e.pdf/$FILE/cb-meg-2011-e.pdf)), and the International Competition Network's *Recommended Practices for Merger Analysis* (<http://www.internationalcompetitionnetwork.org/uploads/library/doc316.pdf>).

<sup>12</sup> S. Salop & David T. Scheffman, *Raising Rivals' Costs*, 73 AMER. ECON. REV. PAPERS & PROCEEDINGS 267-271 (1983); Thomas Krattenmaker & Steven Salop, *Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power over Price*, 96 YALE L.J. 209-293 (1986). The phrase “raising rivals’ costs” is in the FTC’s complaint against Intel. FTC, Intel Complaint, *supra* note 3 at 16.

has been monopolized.<sup>13</sup> Since beneficial conduct—selling better products at lower prices—also hurts rivals—and sometimes can raise their costs, e.g., by having to match quality improvements—it also reinforces skepticism that monopolization law must be about protecting competitors rather than competition, and thus that the same high bar for predation cases based on competitive implausibility should be applied to exclusion cases.<sup>14</sup>

The simple and fundamental point is that to raise rivals' costs in an anticompetitive way, a firm has to raise the price of an input or complement they need. To do that, it has to create the ability to raise that price, which entails creating or increasing market power over that input or complement. That creation of market power is harmful in and of itself; whether or not it is then used to give preferential treatment to a particular firm is of minimal additional significance for consumers' economic welfare. CMM directs attention directly toward the cause of the competitive harm and assessing its significance; RRC reinforces the false and regrettable impression that monopolization law must be about protecting rivals.

### III. TESTING FOR MONOPOLIZATION: COULD ONE LOOK AT THE BUYERS?

The CMM approach highlights that the anticompetitive effect in exclusion cases arises from the reduction in competition in the complement market. A crucial implication of this is that the firms in the complement market who participate in the practice are not victims, forced into a losing proposition at the hands of a monopoly. Rather, they are participants. They share in the profits from CMM through payments to participate. Methods by which they share in the profits can be payments to accept exclusive dealing contracts, or discounts for purchasing most of their requirements from or selling most of their output to the putative monopolist. These participants could be compensated simply by getting the putative monopolist's output at a price below what the market would bear, thus leaving the participants with profits that would be foregone if the monopolizer were to cut them off for dealing with a rival.<sup>15</sup>

The crucial point is that the complement participants in an exclusionary scheme will generally be worse off, not better off, if the likelihood increases that antitrust enforcement will put an end to the scheme. The persistence of the view that enforcement helps the direct buyers is the result of the view that buyers are ultimately the victims of monopolization—true for final consumers in predation cases, but not for complement producers in exclusion cases. A second reason this view persists is that, if it were true, it could serve as a test to distinguish between the possible reasons for the practice in question—monopolization, which hurts the participants, or efficiency, which helps them. (Exclusionary conduct may be efficient; how competition policy should take that into account is discussed below.)

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<sup>13</sup> This has led enforcers to reject cases where a complement market may have been monopolized because the firm doing the monopolizing had too small a share of its own market prior to engaging in the practice. Timothy Brennan, *Understanding Raising Rivals' Costs*, 33 ANTITRUST BULL. 95-113 (1988).

<sup>14</sup> Examples include whether the practice entails a profit sacrifice, makes no business sense, needs to exclude equally efficient rivals, or has prices (e.g., discounts). See text accompanying notes 25-26, *infra*.

<sup>15</sup> This was the core allegation in *U.S. v. Dentsply*, 277 F. Supp. 2d 387 (D.C. Del. 2003), *rev'd and remanded*, 399 F.3d 181 (3<sup>rd</sup> Cir. 2005). The US Department of Justice said that Dentsply would cut off its supplies of artificial teeth to laboratories that manufacture dentures. A cutoff harms those labs only if Dentsply were not already extracting the surplus through its pricing practices. *Dentsply* illustrates that if the threat of a cutoff is credible, the complement market (labs that make dentures) could be monopolized without explicit contracts.

In his critique of the FTC's *Intel* Case, Joshua Wright adopts the "buyer as victim" perspective in stating, "the [anticompetitive exclusion] theory predicts that Intel's customers, such as OEMs [i.e., computer makers] and firms in complementary markets should experience significant negative abnormal returns."<sup>16</sup> However, if the "buyer as victim" approach was valid, and if Intel's actions were monopolizing, events increasing the likelihood of an FTC victory would increase Intel's customers' stock valuations while a lower likelihood would decrease valuations, (other determinants of stock prices held equal). On the other hand, if Intel's practices enhanced efficiency in the computer sector, events indicating an increase in the FTC's probability of success would hurt, not help, the values of the computer makers.<sup>17</sup>

Such a test is irrelevant in exclusion cases, because the buyers are not victims of but partners with the firm offering the exclusionary practices (the nominal monopolist). The anticompetitive effects of exclusive dealing, loyalty discounts, and the like result from suppressing competition among the buyers in making their goods and services available to the nominal monopolist's rivals. Division of the profits from CMM between the buyers and the nominal monopolist responsible for organizing the complement providers into a quasi-cartel shows up in the size of the discount, payments for exclusive dealing, and the like. If the bargaining power is on the side of the monopolist rather than the complement providers, they will capture a smaller share of the monopoly profits. However, the same result would presumably apply to profits from any efficiency benefits provided by loyalty discounts or other exclusivity arrangements. This empirical test might provide insight into the relative bargaining strength of the firm imposing the arrangements and the complement providers on the other side, but it can tell us nothing about whether the overall benefits arise from efficiencies or monopoly.

Wright suggests alternative tests based on whether these exclusionary contracts with Intel reduce AMD's market share and cause profits to fall. Wright finds little evidence of either effect, although he concedes that, "one could always hypothesize a counterfactual world in which AMD's share would have been higher but for Intel's discount contracts."<sup>18</sup> More fundamentally, if Intel's practices created a competitive advantage for Intel because of the efficiencies they generated, one would observe similar effects on AMD, so on this account Wright's test inherently fails to distinguish between the monopolization and efficiency explanations.

If one is not satisfied that a direct examination of the complement market indicates whether the alleged exclusionary conduct raised the price of the complement—recalling that to raise rivals' cost, one has to raise the price they pay for a complement—the only clear empirical test is whether Intel's price raised the price consumers pay for computers. If Intel's conduct was beneficial, prices would be lower or, certainly, no higher than they would have been otherwise. Wright offers no data on that, for which he can hardly be blamed. Over the 1999-2009 period during which the FTC claims Intel engaged in illegal exclusion, the technology and capability of computers, particularly laptop computers, changed dramatically. In the face of such rapid

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<sup>16</sup> Wright, *supra* note 4 at 390.

<sup>17</sup> The version of Wright's paper presented at a Telecommunications Policy Institute symposium, *Antitrust and the Dynamics of Competition in High-Tech Industries* (Washington, DC, Oct. 22, 2010) included the test in the text accompanying this note, finding no significant effect on computer maker stock values attributable to the likelihood of litigation. My comment in note 6, *supra*, was based on that presented version; the published version omits that test but retains the claim that buyers should be harmed if exclusion is anticompetitive. Since the published version of Wright's paper does not include the test, I treat it as what one might do rather than what Wright did.

<sup>18</sup> Wright, *supra* note 4 at 393.

technological change, attempting to show how quality-adjusted prices for computers would have changed had these practices not been in place would be difficult if not impossible.

#### IV. STEPS TO GETTING EXCLUSION CASES RIGHT

In light of the above, here are a number of suggestions for improving the analysis of cases where exclusionary conduct is at issue:

##### **A. Identify and Focus on the Complement Market:**

Forget “raising rivals’ cost” and cut to the chase. Rather than bringing in doctrines based on dominant firms harming competitors, recognize that a necessary and sufficient condition for harm in exclusion cases is complement market monopolization. Currently, rather than identifying and analyzing a monopolized complement market, the focus continues to be on the market in which the perpetrator operates. The FTC’s complaint against Intel lists as relevant product markets only “central processing units” and “graphic processing units.”<sup>19</sup> This diverts attention from the market that Intel allegedly monopolized, i.e. computers carrying microprocessors. It is the effects on price and conditions for entry in that market that determine whether Intel’s practices have a significant anticompetitive effect.

##### **B. Walk Away From Evidence on Prior Dominance**

Because the incorrect prevailing view in exclusion cases is that the complement providers are forced into compliance by a powerful monopolist, evidence on prior dominance is typically central to any case or investigation. After diverting attention away from the significant relevant market, the FTC’s complaint then argued that Intel possessed “monopoly power” protected by barriers to entry in “product development ..., manufacturing capabilities, intellectual property rights, and ... product reputation and compatibility.” Only after this list did the FTC mention the practices in the complaint.<sup>20</sup>

These other barriers to entry trivialize the case: The more significant these other factors, the less Intel’s discounts can lead to additional competitive harm in the supply chain from chips to computers. The case is strongest if, but for the practices at hand, there are no other barriers to entry and without these practices competition would break out.<sup>21</sup> By focusing on these barriers, the FTC is left in the awkward if not untenable position of arguing that despite all of these barriers, Intel’s monopoly was “threatened.”<sup>22</sup> The higher the barriers, the less credible the threat; asserting them hurts an exclusion case; it doesn’t help it.<sup>23</sup>

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<sup>19</sup> Complaint, *supra* note 3 at 6-7.

<sup>20</sup> *Id.* at 7.

<sup>21</sup> An example of a case that gets this right is the Canada Federal Court of Appeal decision in *Commissioner of Competition v. Canada Pipe*, 2006 FCA 233 [2006].

<sup>22</sup> FTC Complaint, *supra* note 3 at 2.

<sup>23</sup> The U.S. antitrust case against Microsoft is vulnerable to a similar critique. If Microsoft’s market dominance in the late 1990s was solidified by enormous economies of scale, network benefits from the wide adoption of its operating system, and consumers being locked into systems that ran their preferred programs and read their files, it becomes harder, not easier, to argue that impeding competition in web browsers has any competitive significance. Timothy Brennan, *Do Easy Cases Make Bad Law? Antitrust Innovation or Missed Opportunities in U.S. v. Microsoft*, 69 G. WASHINGTON L. REV. 1042-1102 (2001).

### **C. Change “Create or Maintain” to “Create”**

Sticking with “create” forces one to show that the practices have created a monopoly in a complement market that was not there before. The phrase “or maintain” may well be appropriate for predation, which concerns actions by a monopolist to punish entrants, but it diverts attention from the requirement in exclusion cases that market power be created where it would not have existed otherwise.<sup>24</sup>

### **D. If Outside the United States, Change “Abuse of Dominance” to “Abuse Creating Dominance”**

Those outside the U.S. legal framework are not immune from this problem. In most countries, exclusionary conduct falls under the category of “abuse of dominance.” That term explicitly requires that the conduct be undertaken by a dominant firm and that it be abusive. This perpetuates two critical errors: that the participants in the practice are victims of “abuse,” and that the practice requires proof that this is an abuse by an existing dominant firm. A simple way to prevent these mistakes is to change “abuse of” to “practices creating,” (so it reads, “Practices Creating Dominance).” But simply changing “of” to “creating” will be a big step in the right direction, if “abuse creating dominance” is construed as “hurting competition” rather than harming participants in the relevant complement market.

### **E. Participants in the Complement Market are Partners, Not Victims**

Requiring that exclusion cases have rendered buyers worse off ignores the fact that they can be paid to participate out of the profits attained by CMM. They will, in general, be better off, and cannot be expected to be credible witnesses against the alleged monopolist. In addition, one does not need to create elaborate game theoretic models to explain why the participants would agree to something that makes them worse off. Willingness to participate is no less mysterious than willingness to participate in a cartel—by doing so as a group enhances profits for all. The harmed parties are the final consumers; the relevant evidence is the final product price.

### **F. Reject Standards Based on Competitive Implausibility**

As noted above, predation cases properly require strict tests to ensure that desirable conduct is not chilled. These tests are not necessary for exclusion cases, where monopolizing a complement market is something we presumably would like to chill. “Profit sacrifice,” “no business sense,” and “below incremental cost” tests ironically base conclusions of harm on the perpetrators’ welfare. They all imply that a penny in profit excuses millions of dollars in competitive harm.<sup>25</sup> These tests bring to mind the image of homicide detectives standing over a corpse and arguing about how much the murderer paid for his gun.<sup>26</sup> The requirement that a practice needs to exclude equally efficient competitors neglects the fact that such competitors

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<sup>24</sup> This point also shows why exclusion cases are not subject to the Chicago school critique against vertical cases involving monopolies based on the “single monopoly profit” theory. The strongest exclusion cases will involve creating a monopoly in a complement market where there was no monopoly before, with the anticompetitive effect being strong because there is no other significant entry barrier anywhere else along the supply chain. To the extent that one has a monopoly protected by entry barriers, and that the exclusionary conduct is vertical (RRC) and not horizontal (CMM) the Chicago school argument retains its force. Those insisting on the monopoly-victim approach to exclusion cases, or suggest that the cases are about protecting rivals, keep the Chicago critique alive and well.

<sup>25</sup> See also Andrew Gavil, *Exclusionary Distribution Strategies by Dominant Firms: Striking a Better Balance*, 72 ANTITRUST L. J. 3 (2004).

<sup>26</sup> Brennan, *Saving Section 2*, *supra* note 5 at 428-31.



typically lower prices and increase welfare relative to a market without their presence. Were any practice that excluded a less efficient competitor be acceptable, then any merger would be permitted if one of the parties was less efficient than the other.<sup>27</sup>

### **G. Recognize Efficiencies Through Share-based Remedies**

As numerous analysts have correctly observed, exclusive dealing and related practices can have important efficiency justifications. The standard example is that exclusive dealing preserves the incentives of an upstream manufacturer to provide services such as training to downstream retailers, without concern that those services will be used to promote sales of its competitors' products.<sup>28</sup> Because these practices can be efficient, they should not be banned outright just because they could create market power if spread over a dominant share of a complement market.

This invites consideration of share-based remedies rather than an outright ban. For example, in *Intel* the FTC could have allowed Intel to continue to offer loyalty discounts, but only to that fraction of computer makers too small to constitute dominance, rather than ban the discounts outright. Remedies of this type allow enforcers to balance efficiencies against competitive harm, as is typically done in allowing small, but not large, firms to merge.

In addition, such remedies may also provide information on competitive effects—if the only purpose of the practice was to monopolize a complement market, then the practice would be dropped if it were limited in scale. On the other hand, if these practices were routinely kept, we'd have more information that the motivation for practices such as loyalty discounts is to enhance efficiency, suggesting regulators take a more lenient attitude toward them.

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<sup>27</sup> Brennan, *Bundled Discounts*, *supra* note 5 at 371.

<sup>28</sup> Howard Marvel, *Exclusive Dealing*, 25 J. L. & ECON. 1-26 (1982).