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# Should Predatory Pricing Rules Immunize Exclusionary Discounts?

Robert H. Lande\*

## I. INTRODUCTION

The purpose of this commentary is to analyze some of the empirical issues that help lay the foundation for the policy conclusions in the excellent and provocative article by Professor Herbert Hovenkamp, *Discounts and Exclusion* (hereinafter “*D&E*”).<sup>1</sup> To oversimplify, *D&E* asserts that discounts usually are procompetitive.<sup>2</sup> It also concedes, but essentially in its footnotes, that discounts can be anticompetitive, but argues that these anticompetitive situations are so rare they should have little impact on public policy.<sup>3</sup> *D&E* then asserts that efficiencies from discounts are common and significant.<sup>4</sup> It then asserts that the only way to bring clarity, predictability, and an acceptable Type I/Type II error balance to this area is to adopt the rules that *D&E* suggests, including complete legality for all single-product discounts (unless the discounting violates normal predatory pricing rules).<sup>5</sup>

*D&E*'s conclusions rest, as they should, on empirical assumptions<sup>6</sup> about the relative importance of various procompetitive and anticompetitive effects of discounts, and also on the significance of efficiencies from discounting. Every one of these empirical judgments is plausible. But how do policymakers know they are correct? Why are some of *D&E*'s arguments in its text, while others are only in the footnotes? Where is the evidence justifying this decision to give credibility and importance to certain arguments and to make certain assumptions and denigrate others?<sup>7</sup> Suppose policymakers instead made very different, yet equally plausible, assumptions; especially assumptions about the probable competitive effects of “retroactive” or “all units” discounts.<sup>8</sup> Unlike

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<sup>1</sup>See Herbert Hovenkamp, *Discounts and Exclusion*, 2006 UTAH L. REV. 841.

<sup>2</sup>See *id.* at 843.

<sup>3</sup>See *id.* at 847 & n.28.

<sup>4</sup>See *id.* at 843.

<sup>5</sup>*Id.* at 844.

<sup>6</sup>“These premises speak for the following conclusions . . .” *Id.* at 844–45.

<sup>7</sup>Professor Hovenkamp, always the careful scholar, never uses inappropriate absolutist language. He never says that “all” discounts are procompetitive or that “none” are. However, he is making policy conclusions based upon his empirical assessment of the relative frequency and weighting of various scenarios. He provides no basis for these implicit presumptions.

<sup>8</sup>Note that “first dollar” or “all-units” discounts are only one of many ways to generate a retrospective rebate. It is this retrospective character that makes these “discounts” problematic. There is, however, no settled language that is universally understood to identify these rebate schemes from more benign prospective discounts. The DG Competition Paper calls them “Conditional Rebates.” See EUROPEAN COMM’N, DG COMPETITION DISCUSSION PAPER ON THE

“regular” discounts, which are almost always procompetitive, retroactive discounts have a strong exclusionary and anticompetitive potential. If different presumptions were made about the presumptive effects on consumer welfare of retroactive discounts, a very different set of policy recommendations would instead be appropriate.<sup>9</sup>

The purpose of this Article is to analyze a few of the most important empirical judgments or presumptions in *D&E* and the policy conclusions that flow from them. This Article argues that, because there is no support for these empirical assertions, policymakers should reject *D&E*'s policy suggestions.

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APPLICATION OF ARTICLE 82 OF THE TREATY TO EXCLUSIONARY ABUSES ¶ 137, at 39 (2005) [hereinafter DG COMPETITION PAPER], available at <http://ec.europa.eu/comm/competition/antitrust/others/discpaper2005.pdf>. Others call them “all-units discounts,” “quantity-forcing contracts,” or “loyalty rebates.” The distinguishing characteristic is a large lump-sum rebate triggered, explicitly or implicitly, by reaching a target quantity or share. Regardless of the name used, it seems wise to distinguish between the effects of rebates triggered by attaining a target quantity, and discounts that apply to units beyond the target. As will be discussed *infra*, the former can have especially strong exclusionary effects.

<sup>9</sup>This Article focuses upon empiricism in part due to the teaching of Professor John Flynn, who stressed to the author on many occasions that sound economic policy judgments must reflect the real world.

Professor Mark Glick, my co-presenter at the conference honoring Professor Flynn, recounts a story that is a typical illustration of Professor Flynn's empirical concerns. Professor Glick recounts how, as a young economist in industrial organization at the University of Utah, he often met with Professor Flynn in his office or over lunch. At each meeting, Professor Flynn would emphasize that the problem with economics was that all too often it ignored the facts. Professor Glick, then solely an economist by training, never understood what he meant. Professor Flynn advised Glick to attend law school, but after he graduated, Glick still did not understand Flynn's point. Today, after practicing antitrust law for fifteen years, Professor Glick told the conference that he finally understands the truth of what Professor Flynn had been saying all those years. One of the important contributions Professor Flynn has made to the use of economics in antitrust has been his stressing of the truism that economic theory cannot replace facts with unsupported presumptions. Instead, the proper role of economics is to function as a tool that helps one to work through the logic of the situation and to draw conclusions only in light of the relevant facts.

Glick gave the following example to contrast the views of Professors Flynn and Hovenkamp. Assume a situation exists where single-product predation is alleged. The facts are that prices are above cost, but efficient entry is blockaded because of first-mover effects and scale economies. Moreover, the entrant is more efficient than the incumbent. How would this situation be addressed by Professors Flynn and Hovenkamp?

Glick stated that Professor Hovenkamp would just apply the rule that above-cost pricing is *per se* legal. The entrant therefore has no antitrust remedy. The justification is that in most cases only inefficient entrants are excluded by this rule. But under an approach likely to be advocated by Professor Flynn, Professor Glick said that we should not use a rule in the first place. Instead, Professor Flynn would at most apply only presumptions. In this case, Professor Flynn probably would employ a presumption that above-cost pricing only excludes inefficient entrants, but he would give the entrant a chance to rebut this presumption.

Professor Glick then recounted that in real antitrust cases discovery is typically a multi-year process and there is no reason why courts cannot distinguish between efficient entrants and less efficient ones.

Finally, some policy alternatives are proposed for consideration by the antitrust community.

## II. EMPIRICAL JUDGMENTS IN “DISCOUNTS & EXCLUSION”

### A. “*The Great Majority of Discounting Practices Are Procompetitive*”<sup>10</sup>

As a general matter, the assertion that most discounting practices are procompetitive is surely true. But, is this presumption still true when these discounts are given by monopolists, by monopolists for the first time facing the prospects of significant new entry, or by would-be monopolists that are targeting rivals? Where is the empirical evidence that discounts in these situations usually are procompetitive? Would a market power screen<sup>11</sup> and a very different presumption make a better policy prescription? *D&E* provides no empirical foundation that would support Professor Hovenkamp’s conclusions. Nor do I know of any evidence in other literature that contains the missing information. Moreover, for single-product discounts *D&E* focuses primarily on “progressive discounts;” for example, discounts given only on units beyond a certain threshold but not on units below the threshold (i.e., a 10% discount on all purchases exceeding 1000 per month).<sup>12</sup> However, as the hypothetical discussed in Section B below shows, “all-unit” or retroactive discounts have a much larger anticompetitive potential. There is no reason to believe that a policy appropriate for forward-looking discounts is appropriate for retroactive discounts.<sup>13</sup>

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<sup>10</sup>Hovenkamp, *supra* note 1, at 843 (initial capitalization added).

<sup>11</sup>A market power screen would have to be crafted to avoid “cellophane fallacy” problems. See E. THOMAS SULLIVAN & HERBERT HOVENKAMP, *ANTITRUST LAW, POLICY AND PROCEDURE: CASES, MATERIALS, PROBLEMS* 634–36 (5th ed. 2003). See generally Donald F. Turner, *Antitrust Policy and the Cellophane Case*, 70 HARV. L. REV. 281, 303–19 (1956).

<sup>12</sup>Hovenkamp, *supra* note 1, at 845–48.

<sup>13</sup>See DG COMPETITION PAPER, *supra* note 8, ¶ 118, at 34 (“If the dominant company with its low prices selectively targets specific customers and in particular when these customers are the actual customers of one or more particular rivals in the market, this may be an important part of the evidence of a predatory strategy. Such prices can be designed to damage a competitor’s viability and to foreclose the market while limiting the losses incurred by the dominant company to those arising from the targeted sales. The same holds in case the low prices are selectively targeted at those customers that might switch to a potential entrant in case entry is imminent. Such evidence may be considered stronger if also other exclusionary practices can be shown. On the other hand, a general price decrease applied to all the output of the dominant company is in general less likely to be part of a predatory strategy. With a general price decrease the dominant company will not have the possibility to off-set its losses with profits earned on other sales and the losses will usually be higher, making recoupment less likely. The latter point about a market wide price decrease may have less force of argument if the market is more prone to pre-emption due to characteristics such as network effects or if the dominant company is active on a number of adjacent markets where predation in one market may help to build up a reputation of being an aggressive competitor for all markets.” (citation omitted)); see also *id.* ¶¶ 152–53, at 44 (“Conditional rebates that are granted on all purchases in the reference period once a certain threshold is exceeded can have a strong foreclosure effect.” (citation omitted)).

B. “Market Share or Quantity Discounts Aid Sellers in Long-Run Output Planning”<sup>14</sup>

While I certainly do not dispute that long-run output planning efficiencies can occur, the crucial empirical questions are: How often is it true, how important is this effect, and how much weight should be given to this factor?<sup>15</sup> Could long-term planning be facilitated as well, or almost as well, in ways other than discounting? Could discounting also have exclusionary effects? If discounts could be exclusionary, how should the exclusionary effects be balanced against the procompetitive effects?<sup>16</sup> Again, where is the empirical evidence for any conclusion about any of these variables? Without this evidence how do we know how much weight to give the possibility of long-term planning efficiencies that *D&E* discusses? Again, there simply is no support for *D&E*'s conclusions, and the contrary policy prescription might also be correct.

C. “The Economic Case for Condemning Price Discrimination as Such is Close to Nonexistent”<sup>17</sup>

If this passage means that there is a virtually nonexistent case for condemning all uses of price discrimination by all firms in all contexts, then it surely is correct. But does this passage instead mean that almost all price discrimination by monopolists, by monopolists changing their pricing policies in the face of attempted entry, or by would-be monopolists, is benign or procompetitive? If so, again I respectfully ask for the empirical basis for this conclusion. Finding no evidence in *D&E* or elsewhere, I urge decision makers to ignore it, especially in light of the fact that price discrimination results in wealth transfer effects that usually are ignored.

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<sup>14</sup>Hovenkamp, *supra* note 1, at 843 (initial capitalization added).

<sup>15</sup>If the fact that discounting sometimes can aid sellers in long-run planning is accepted as a complete justification for otherwise questionable practices, then even below-cost pricing should be *per se* legal because what can be better for long-term planning than pricing below-cost, destroying your competitors, and then raising prices? Why does Professor Hovenkamp accept this argument in the discounting context but not the predatory pricing context when, according to *D&E*, the two practices should be treated the same? *See id.* at 844. Similarly, if the contracts in *Concord Boat Corp. v. Brunswick Corp.*, 207 F.3d 1039, 1044–45 (8th Cir. 2000), had been long-term, Professor Hovenkamp agrees they would have been viewed more suspiciously. *See* Hovenkamp, *supra* note 1, at 846–47 & n.27 (discussing duration in quantity discount practices as found in *Concord Boat*). Yet, longer term contracts certainly would have aided the seller's long-term planning.

<sup>16</sup>Evidence of one possible efficiency—even evidence of a guaranteed efficiency—from discounting should not end the legal inquiry. Even old-fashioned horizontal price fixing can lead to efficiencies—it often will save on consumer search costs and on advertising costs. Yet, most agree that price fixing should remain *per se* illegal.

<sup>17</sup>Hovenkamp, *supra* note 1, at 859 (initial capitalization added).

It is well known that price discrimination can be efficient or inefficient, depending upon the circumstances of its use.<sup>18</sup> As before, the key issues are empirical: in specific situations (e.g., when used by monopolists facing new entry) what is the ratio of procompetitive to anticompetitive uses of price discrimination?

Moreover, most economic analyses of price discrimination proceed upon the assumption that only efficiency considerations should count in the analysis.<sup>19</sup> Suppose, however, as has been asserted,<sup>20</sup> conceivably even by Professor Hovenkamp,<sup>21</sup> that the Congress that passed the Sherman Act also had “wealth transfer” or property protection goals. Suppose the antitrust laws were passed in large part because of congressional displeasure over the higher prices (and the accompanying wealth transfers)<sup>22</sup> to some purchasers that arose from cartels, etc.<sup>23</sup> Suppose Congress wanted these wealth transfers from consumers to cartels and monopolies, when caused by this market power, to count as a negative or anticompetitive factor in antitrust analysis.

Price discrimination almost always causes significant wealth transfer effects.<sup>24</sup> What would be the result of counting these effects (in addition to efficiency effects) when we analyze price discrimination? What would happen to conclusions about the empirical balance between the procompetitive and anticompetitive uses of price discrimination? As Professor Hovenkamp observed elsewhere, “All forms of persistent price discrimination transfer

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<sup>18</sup>See, e.g., HERBERT HOVENKAMP, *FEDERAL ANTITRUST POLICY: THE LAW OF COMPETITION AND ITS PRACTICE* § 14.5, at 576–78 (3d ed. 2005) (discussing price discrimination and antitrust policy, especially § 14.5a, entitled *The Social Cost of Price Discrimination*).

<sup>19</sup>See, e.g., *id.* § 14.5a (discussing efficiency issues in pricing strategies).

<sup>20</sup>See Robert H. Lande, *Wealth Transfers as the Original and Primary Concern of Antitrust: The Efficiency Interpretation Challenged*, 34 *HASTINGS L.J.* 65, 82–106 (1982); see also Phillip Areeda, *Introduction to Antitrust Economics*, 52 *ANTITRUST L.J.* 523, 536 (1983) (“‘Consumer welfare’ embraces what individual consumers are entitled to expect from a competitive economy. If the efficiency extremists insist that only their definition of consumer welfare is recognized by economists, we would answer that ours is clearly recognized by the statutes. The legislative history of the Sherman Act is not clear on much, but it is clear on this.”).

<sup>21</sup>Commenting on the legislative history of the antitrust laws, Professor Hovenkamp concluded: “Bork’s work [asserting that Congress cared only about efficiency] has been called into question by subsequent scholarship showing that . . . Congress had no real concept of efficiency and was really concerned with protecting consumers from unfavorable wealth transfers.” Herbert Hovenkamp, *Antitrust Policy after Chicago*, 84 *MICH. L. REV.* 213, 250 (1985). “[T]he legislative history of the Sherman Act shows a great deal of concern for the fact that monopolists transfer wealth away from consumers, but no concern at all for any articulated concept of efficiency.” HOVENKAMP, *supra* note 18, at 576 (citation omitted). However, elsewhere he seems to suggest that he does not believe that these transfers should be counted in antitrust analysis. See *id.* § 2.1, especially at 50.

<sup>22</sup>Supracompetitive prices cause both allocative inefficiency and a transfer of wealth from purchasers to the firm or firms with monopoly power. Economists usually consider the allocative inefficiency effects of this monopoly power in their analyses but rarely consider the wealth transfer effects. For a discussion, see Lande, *supra* note 20, at 72–74.

<sup>23</sup>See *id.* (citation omitted).

<sup>24</sup>See HOVENKAMP, *supra* note 18, at 576.

wealth away from consumers and toward sellers. If antitrust policy is concerned with such wealth transfers, then price discrimination presents an antitrust problem. The question is more complex if economic efficiency is not the exclusive goal of the federal antitrust laws."<sup>25</sup>

The majority opinion in *Jefferson Parish Hospital District No. 2 v. Hyde*<sup>26</sup> can best be explained as condemning certain instances of tying to price discriminate because of its wealth transfer effects. While the Court certainly appreciated the efficiencies that can result from tying,<sup>27</sup> it also complained that tying "may be used as a counting device to effect price discrimination."<sup>28</sup> Furthermore, the court asserted that tying could be anticompetitive because it "can increase the social costs of market power by facilitating price discrimination, thereby increasing the monopoly profits over what they would be absent the tie."<sup>29</sup> The Court explained in more detail how tying as a means to price discriminate can cause anticompetitive transfers of wealth from purchasers to firms with monopoly power: "Sales of the tied item can be used to measure demand for the tying item; purchasers with greater needs for the tied item make larger purchases and in effect must pay a higher price to obtain the tying item."<sup>30</sup> By contrast, Justice O'Connor's concurring opinion was more ambivalent about price discrimination.<sup>31</sup>

To my knowledge an empirical analysis of the welfare effects of price discrimination in the discounting context that *D&E* considers, an analysis that includes its wealth transfer effects,<sup>32</sup> has never been performed. But how else

<sup>25</sup>*Id.* (citation omitted). The complexity of price discrimination analysis, even under an efficiency standard, can be illustrated by focusing on a part of *D&E*'s analysis that appears to be incorrect. Hovenkamp, *supra* note 1, at 858–59.

*D&E* concludes that bundling is efficient because it increases total production (from two units in the case in which the goods are sold separately to four units in the case in which they are sold as a bundle). The reason given is that the combined price of the goods (\$150) is equal to their combined marginal cost. An output criterion, however, is the wrong criterion to apply. The unit of good B that is sold to customer 1 and the unit of good A that is sold to customer 2 should not be produced when they are valued by the consumers at less than their marginal costs of production (\$40 vs. \$50 for customer 1 and \$90 vs. \$100 for customer 2). This example actually illustrates how bundling can be inefficient and over-inclusive, i.e., it can force consumers to buy goods for which they have a lower valuation than the goods' social cost. This example also shows that output does not always correlate perfectly with efficiency. The output rule of thumb is not always valid, especially when price discrimination is involved.

<sup>26</sup>466 U.S. 2 (1984).

<sup>27</sup>*Id.* at 12.

<sup>28</sup>*Id.* at 13 n.19.

<sup>29</sup>*Id.* at 14–15.

<sup>30</sup>*Id.* at 15 n.23.

<sup>31</sup>"Tying might be undesirable in two other instances . . . . Tying may also help the seller engage in price discrimination by 'metering' the buyer's use of the tying product. Price discrimination may be independently unlawful. Price discrimination may, however, *decrease* rather than increase the economic costs of a seller's market power." *Id.* at 36 n.4 (O'Connor, J., concurring) (citations omitted).

<sup>32</sup>Another complexity arises from the fact that price discrimination does not necessarily entail only a transfer from consumers to the monopolist. Relative to a single-price regime, price

could one be certain enough to decide which rule—a rule almost always permitting discounts, or a rule sometimes or usually forbidding discounts by monopolists, for example—would be in the public interest?<sup>33</sup>

*D. Discounting Is So Similar to Predatory Pricing That It Should Be Governed by Predatory Pricing Rules*<sup>34</sup>

While discounting does share many of the characteristics of predatory pricing, it lacks one of its integral elements. The essence of predatory pricing is a short-term lowering of price and a short-term sacrifice of profit so that the dominant firm (or would-be dominant firm) can gain a long-term monopoly profit. However, as Section III demonstrates below, discounts (or practices that appear to be discounts) often involve no such sacrifice.

Moreover, the world of predatory pricing has become a monopolist's paradise. Even though many respected scholars believe that anticompetitive predatory pricing exists and is not rare,<sup>35</sup> successful predatory pricing judgments are exceedingly rare.<sup>36</sup> Only a few cases even survive summary judgment.<sup>37</sup> Indeed, the daunting possibility of filing a predatory pricing suit can even be contemplated only by "the most sophisticated and wealthy plaintiffs."<sup>38</sup> If we expand the world of predatory pricing analysis to encompass discounting practices, we are implicitly making the conservative empirical judgment that this is an area of law that we want to make almost *per se* legal.<sup>39</sup> Why should policymakers make this decision without backing it up with a reasonable amount of evidence suggesting that it is the appropriate approach? Section IV, Lessons from Predatory Pricing Rulemaking, shows how such an analysis should be carried out.

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discrimination could also transfer surplus from consumer group A (e.g., low-elasticity consumers, who pay a higher price) to consumer group B (e.g., high-elasticity consumers, who pay a lower price) and also to the monopolist. Any analysis of wealth transfer effects of price discrimination should also account for this type of effect.

<sup>33</sup>See DG COMPETITION PAPER, *supra* note 8, ¶ 140, at 40 ("Another possible negative effect of rebate systems is price discrimination between the different buyers."). Paragraph 179 refers to price discrimination as an anticompetitive effect of tying arrangements. *Id.* ¶ 179, at 54.

<sup>34</sup>Hovenkamp, *supra* note 1, at 844.

<sup>35</sup>"We argue first that theory does not suggest that predation does not exist or even that it is rare. We then show that the empirical evidence also fails to suggest it is rare." Richard O. Zerbe, Jr. & Michael T. Mumford, *Does Predatory Pricing Exist? Economic Theory and the Courts after Brooke Group*, 41 ANTITRUST BULL. 950, 952 (1996); see also *id.* at 957–64 (discussing cases that concern predatory pricing).

<sup>36</sup>*Id.* at 951, 968–75. Moreover, predatory pricing litigation is always tremendously expensive and often unpredictable, particularly for plaintiffs since they lack knowledge of defendants' costs. Only a few cases survive.

<sup>37</sup>*Id.* at 956.

<sup>38</sup>*Id.* at 977.

<sup>39</sup>Although the decision to expand the reach of predatory pricing rules might appear to be ideologically neutral, as a practical matter it has a (perhaps unintended) strong pro-defendant, pro-monopolist result.



*E. Economic Modeling Shows That Anticompetitive Discounting Scenarios Tend to Be Highly Complex, Often Making Unrealistic Assumptions*<sup>40</sup>

If the asserted anticompetitive uses of discounting are indeed overly complex and rely on unrealistic assumptions, and therefore are empirically insignificant, then of course they should be relegated to footnotes and not influence public policy. While this surely is true about some of the models showing anticompetitive uses of discounting that have been formulated, I will offer a simple, intuitively plausible, anticompetitive example that relies, in effect, on some of the assumptions that Professor Hovenkamp has relegated to his footnotes. This hypothetical is based on early, never proven, allegations against Microsoft.<sup>41</sup>

III. A SIMPLE, INTUITIVELY PLAUSIBLE COUNTEREXAMPLE

Suppose there were a hypothetical personal computer (“PC”) operating system (“OS”) monopolist called Microsoft (“MS”) and that a hypothetical firm called Linux is trying to enter the OS market by distributing its product through computer manufacturers or assemblers, known as original equipment manufacturers (“OEMs”).<sup>42</sup> Suppose that MS’s marginal cost of making another copy of its OS is approximately zero,<sup>43</sup> that it sells its OSs for \$100 each, and that it sells 1000 units a month to a particular OEM. Suppose Linux’s OS is equal in quality to MS’s, that Linux is an equally efficient OS producer, and that Linux is willing to sell copies of its OS for \$50 each.<sup>44</sup> If Linux were able to enter this market it certainly would be beneficial for competition.

Suppose Linux went to an OEM and said, “While we would love to get all of your business, we realize that it would be too risky for you to shift all of your computer production to PCs that use our OS. Why not buy 200 next month—20% of your requirements—at only \$50 each, as a test, and see how well your PCs that run on Linux sell? You will save money and find that Linux

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<sup>40</sup>Hovenkamp, *supra* note 1, at 843 (initial capitalization added). He also writes: “Anticompetitive theories are legion, but they are also complex.” *Id.* at 861.

<sup>41</sup>This hypothetical is an updated version of an early allegation made against Microsoft brought by Digital Research, Inc., which the author helped represent. None of these allegations were ever resolved or even reviewed by any court, so this example should be considered a complete hypothetical.

<sup>42</sup>The original allegation made against Microsoft involved an operating system called DRDOS.

<sup>43</sup>In reality, the marginal cost of producing another copy of an OS is not zero. If the hypothetical were to include, for example, a \$1 marginal cost for each additional OS, the hypothetical’s numbers would be more complicated, but its logic and lessons would be unaffected.

<sup>44</sup>Other necessary assumptions include significant barriers to entry into a market that is well-defined for antitrust purposes.

is just as good as MS's OS, that customers will purchase machines containing Linux just as readily, and that you will have no more service calls or complaints from customers."

Suppose that MS quickly finds out about Linux's offer to sell 200 units to the OEM for \$50 each and responds to this attempted entry by changing its pricing structure. Suppose that, when the OEM goes to MS and asks to purchase only 800 units for the month, MS tells the OEM that their prices for their OS have risen, to \$125 each. But then MS quickly adds that if the OEM buys 1000 units, MS will give them a quantity discount, down to only \$100 each for every copy they purchase.

The OEM would quickly calculate that in light of MS's new pricing system, it does not make sense to purchase any copies from Linux for \$50 per unit, or even for \$1 each. If the OEM only purchases 800 units from MS, it would pay  $800 \times \$125$ , which totals \$100,000. On the other hand, if it purchases all 1000 units from MS, then it would pay  $1000 \times \$100$ , which also equals \$100,000. From the perspective of the OEM, the incremental units—the units between 800 and 1000 units purchased—are free. From the OEM's perspective, why should it pay \$50 each to Linux for those 200 additional units, or any positive amount, when the established firm will in effect give them to the OEM for free? From MS's perspective, it still gets its same \$100,000 per month from this OEM.<sup>45</sup> In addition, the quantity discount has excluded their would-be competitor.

The nascent entrant's only possible counter-strategy would be to try to convince the OEM to completely switch its OS purchases to Linux; to buy all 1000 units from Linux for a price of, say, \$50 or even \$25 each.<sup>46</sup> However, this would be an extremely risky contract for the OEM to agree to.<sup>47</sup> It is one thing for an OEM to test-market a critical new product on 20% of its production. It is quite another undertaking for the OEM to "bet the company," and shift all of its production to an unknown newcomer to the market.<sup>48</sup> While

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<sup>45</sup>Presumably this is the profit-maximizing price.

<sup>46</sup>Quantity forcing caused by monopoly power also may make its rival or would-be rival compete for very large quantity increments at prices above marginal cost (so as not to be deemed predatory) that make the sales of the incremental units unprofitable for the rival. By contrast, the dominant firm can make a contribution to fixed costs on these marginal units, making these sales profitable.

<sup>47</sup>Linux may face obstacles in addition to risk. For example, if the OEMs have staggered their long-term contracts with Microsoft, a large share of the market may be tied up at any given moment and cannot be captured by a prospective entrant.

As a practical matter, at any given time some percentage of purchases are absolutely locked into being supplied by the monopolist by contract, another percentage is close to being locked in by sunk costs or third-party requirements, another percentage is more contestable depending upon switching costs, and a final segment is readily contestable.

<sup>48</sup>Demand for the new product is likely to be low at first and spread out among categories of customers and geographic locations. Demand might gradually build for Linux, but it would be very difficult for any one OEM to sell to that demand. Its distribution costs, at least for a while, would be too expensive to enable it to earn a profit. Moreover, there could be a chicken-and-egg

theoretically possible, reason tells us that such a dramatic switch would be unlikely to happen and there is no systematic empirical learning to counteract this logic.<sup>49</sup>

Since the marginal cost of making another copy of an OS is close to zero,<sup>50</sup> MS's "discounted" sales at \$100 each would likely pass any predatory pricing test. Their discounting could be immunized even if the court adopts the refinement of the average variable cost standard, advocated in footnote 9 of Professor Hovenkamp's article<sup>51</sup> and the recent discussion draft of The DG

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situation concerning demand; consumers may only demand a product (especially one involving significant network effects) if it is widely available or widely used.

Sudden movements of large percentages of buyers or sellers are often unsettling. For example, Denmark sold a considerable amount of dairy products to the Middle East before a Danish newspaper published cartoons featuring Mohammed. This caused a widespread Muslim boycott of Danish products. No doubt in the long run Denmark will be able to sell its dairy products elsewhere. But in the short run the damage from the Muslim boycott has been considerable.

<sup>49</sup>Hovenkamp, *supra* note 1, at 849–856; *see also* DG COMPETITION PAPER, *supra* note 8, ¶ 154, at 45 (“[T]hese competitors can not compete for an individual customer’s entire demand . . .”). Paragraph 143 explains:

[T]hat for a good part of demand on the market there are no proper substitutes to the dominant supplier’s product, because for instance its brand is a “must stock item” preferred by many final consumers or because the capacity constraints on the other suppliers are such that a good part of demand can only be provided for by the dominant supplier. For distributors it may be necessary to trade in the dominant supplier’s products in order to be able to satisfy an important part of their customers’ demand and in order to reach a viable scale of business.

*Id.* ¶ 143, at 41 (footnote omitted).

<sup>50</sup>In reality, the marginal cost of making, distributing, and servicing customer calls would actually be significantly greater than zero. But it nevertheless would be extremely low compared to its price because software has such high fixed costs (the intellectual property component). For this reason software makes a good example.

<sup>51</sup>Hovenkamp, *supra* note 1, at 842 n.9. Footnote 9 reads in part:

As used here, the term “above-cost” refers to an appropriate measure of cost, without getting into the debate over what that measure is. Ordinarily, the measure is thought to be either short-run marginal cost or average variable cost. This does not necessarily mean the shortest run variable cost possible, however. For example, machinery that wears out is subject to use depreciation, which should be calculated into variable cost.

More importantly, for some goods with a heavy intellectual property component, “cost” properly includes a pro rata portion of development costs, even though development costs are typically paid before the first sale and invariant to the quantity sold, and thus for most purposes are regarded as fixed. For example, if it costs \$1 million to develop a computer program but only \$5 to print the CD-ROM containing it plus the packaging, then a measure of variable costs that considers only the latter is too low. One must also consider reasonable development costs per unit. Thus, if we reasonably believe that this program will sell one million copies, \$1 in development costs per unit should be added to the other variable costs. Problematically, pro rata development costs are very difficult to compute if the

Competition Paper, the European Union's competition enforcement unit proposal<sup>52</sup> that includes the software's development costs. In this refinement Professor Hovenkamp argues that, for products with a very high intellectual property component, these development costs should be attributed to each item sold.<sup>53</sup> While this refinement could help deter anticompetitive behavior, it is difficult to know how this test would be applied in practice.<sup>54</sup> At a minimum it would complicate an already extremely costly, difficult to apply, lengthy to carry out, and defendant-friendly test, and it still could immunize many instances of anticompetitive discounting.<sup>55</sup>

In this example, the monopolist's "discount" in actuality masks thinly disguised predatory pricing. If the seller engaged in transparent pricing, it would say that the price is \$125 each for the first 800 units, and then zero for the next 200 units. But this type of honesty would be foolish; if they advertise to sell unit numbers 801 to 1000 for free, they would be found guilty of predatory pricing. Why should their discount veil be allowed to mask the underlying reality? Nevertheless, the disguise would work well enough to fool even an illustrious scholar like Professor Hovenkamp.

Thus, this hypothetical illustrates a simple, intuitive case of the anticompetitive use of discounts (which actually should be termed "sham discounts") that are not based on efficiency.<sup>56</sup> The discounts block entry or put the monopolist's rivals out of business in a way that harms competition and consumer welfare. This can of course mean higher prices for consumers, and it

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product has not yet exhausted its market lifecycle because the fact finder will not know how many copies will be sold.

*Id.*

<sup>52</sup>See DG COMPETITION PAPER, *supra* note 8, ¶ 108, at 30 ("The AAC [Average Avoidable Cost, including variable cost and the overhead for the item in question] benchmark is the appropriate and practical answer to the question about avoidable losses."); *id.* ¶ 109, at 31 ("This is however a rebuttable presumption; there may be exceptional circumstances under which a price below AAC is justified . . ."); *id.* ¶ 110, at 32 ("The presumption that below AAC the pricing of a dominant company can be assessed as predatory implies that once the Commission has established that the price charged was below AAC it does not need to further justify its decision with elements concerning the actual or likely exclusion of the prey, the predatory intent of the dominant company, its possibility to recoup the losses in the future . . . . In such a case, the dominant company may wish to take up these elements and other circumstances of the case to show that it can justify its pricing.").

<sup>53</sup>See Hovenkamp, *supra* note 1, at 842 n.9.

<sup>54</sup>This variation of the famous average variable cost rule, while logical, makes planning extremely difficult because (as Professor Hovenkamp notes) it would entail predicting the future sales of the item in question. *Id.* This test might be capable of being implemented in predatory pricing litigation taking years to conduct, during which period the product in question might have finished being produced. But since the results of this test cannot be predicted very well, it is far from optimal as a planning tool.

<sup>55</sup>For example, if MS's OS had only modest intellectual property components, even attributing these costs to the incremental OSs might not be enough to condemn it.

<sup>56</sup>They force rivals to sell a non-optimal quantity in a way that benefits no one other than the monopolist.

can also mean reduced short-term consumer choice and lower long-term innovation.<sup>57</sup> Moreover, it uses an equilibrium strategy the monopolist can maintain, costlessly and indefinitely.<sup>58</sup> We could of course change the facts in this hypothetical in many possible ways. For example, the hypothetical would be relatively unaffected if we changed it so the monopolist charged a small amount for the marginal units, or we could build in a small marginal cost for the product in question, or we could, as Professor Hovenkamp suggests in footnote nine,<sup>59</sup> incorporate the cost of the product's intellectual property.<sup>60</sup> Moreover, in the real world we often would have to struggle to define the output over which the discounts should be attributed. But in the end, depending on what the hypothetical (or real-world!) figures looked like, the analysis essentially would be the same, especially for discounts that retroactively apply to all sales, not just incremental sales. These "discounts" block entry, are not based on efficiency, and would not allow MS to reach customers who otherwise would not purchase their OS. Moreover, this discount aid to MS's long-term planning would be trivial, except insofar as guaranteeing its monopoly position would enhance its ability to plan. Yet, this discount probably would be immunized under Professor Hovenkamp's proposed standard—unless the reviewing court allocates the discount completely to the incremental output, as is suggested in Section II.D, above.

#### IV. LESSONS FROM PREDATORY PRICING RULEMAKING

Professor Hovenkamp thoughtfully analogizes the current situation to that of predatory pricing in the 1970s, when the antitrust field was faced with a large number of competing procompetitive and anticompetitive explanations. The courts conducted rule of reason analyses in which they were supposed to sort out this chaos. Into this morass Professors Areeda and Turner promulgated

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<sup>57</sup>See DG COMPETITION PAPER, *supra* note 8, ¶ 91, at 27; Neil W. Averitt & Robert H. Lande, *Consumer Sovereignty: A Unified Theory of Antitrust and Consumer Protection Law*, 65 ANTITRUST L.J. 713, 715 (1997).

<sup>58</sup>In other words, rather than set its OS prices at \$100 each and then change them as a reaction to the threat of new entry, the monopoly could simply announce that, for this OEM, its price will always be \$125 per unit if the OEM purchases 800 copies, and will always be \$100 if it buys 100 copies. This would be somewhat more complicated for the monopolist to administer, but it would be revenue-neutral and would also have the effect of discouraging entry.

<sup>59</sup>Hovenkamp, *supra* note 1, at 842 n.9.

<sup>60</sup>For example, suppose that the monopolist only lowered its price to \$110 for all of the units purchased if a customer purchased 1000 units. This would mean that the customer's total cost for 800 units would be \$100,000, while its total cost for 1000 units would be \$110,000. Thus, the final 200 units would cost the purchaser a net of \$10,000, which means that the final 200 units would effectively be priced at \$50 each. Alternatively, by choosing slightly different prices (e.g., by setting the high, stand-alone price charged by MS for the 800 units equal to \$130 instead of \$125) the monopoly could generate a situation in which the additional 200 units are effectively sold at a negative price.

their famous average variable cost rule.<sup>61</sup> As Professor Hovenkamp notes, their goal was not to formulate the perfect predatory pricing rule—that would have been impossible. Rather, their goal was to formulate a pretty good rule, one that had an acceptably small number of Type I and Type II errors and was relatively clear and predictable.<sup>62</sup>

The antitrust world that existed in 1975 was such that Areeda and Turner could—and I admit to exaggeration because there was a considerable amount of scholarly debate—simply declare that they had figured out the best predatory pricing rule, and much of the antitrust world thereupon deferred to their wisdom and followed their suggestion, in whole or in part. However, the nature of the antitrust field has changed dramatically during the last thirty years. Today, anyone wanting to formulate policy rules should do so based on proven empirical as well as theoretical assessments. Let me illustrate how this process should work by continuing the predatory pricing analogy.

A model for the antitrust world to use is the approach to predatory pricing rulemaking contained in an excellent article by Richard O. Zerbe, Jr., and Donald S. Cooper.<sup>63</sup> Zerbe and Cooper assembled every case of alleged predatory pricing for which they could find sufficient data. They first evaluated whether the conduct in each of these forty cases was procompetitive or anticompetitive.<sup>64</sup> They then analyzed how each of the forty cases would have come out under five relatively clear and predictable predatory pricing rules.<sup>65</sup>

Zerbe and Cooper's analysis showed which of the five rules would have done the best job of deciding the forty actual examples of alleged predatory pricing for which they had been able to find data. In other words, they analyzed which of the five relatively predicable and clear rules would have yielded the best balance of Type I and Type II errors when applied to the real world's proffered sample of forty alleged predatory pricing cases. They then quite reasonably asserted that this rule also would be likely to do the best job deciding the next predatory pricing cases to reach the courts.<sup>66</sup> They accordingly argued that the courts should adopt the best of the five tested rules.<sup>67</sup>

This same methodology should be applied to the discounting area. It would, of course, be an extremely large and difficult task—no doubt comparable to the time and intellectual effort expended by Zerbe and Cooper.

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<sup>61</sup>See Phillip Areeda & Donald F. Turner, *Predatory Pricing and Related Practices under Section 2 of the Sherman Act*, 88 HARV. L. REV. 697, 700–33 (1975) (suggesting average variable cost as surrogate for marginal cost for predatory pricing analysis).

<sup>62</sup>See Hovenkamp, *supra* note 1, at 841–45.

<sup>63</sup>See Richard O. Zerbe, Jr. & Donald S. Cooper, *An Empirical and Theoretical Comparison of Alternative Predation Rules*, 61 TEX. L. REV. 655 (1982).

<sup>64</sup>See *id.* at 699–708, 704 tbl.3.

<sup>65</sup>See *id.* at 704 tbl.3, 709–15. Among the rules they analyzed were the Areeda-Turner rule and *per se* legality. See also *id.* at 686–90, 696–99.

<sup>66</sup>See *id.* at 715.

<sup>67</sup>*Id.*

To my knowledge, however, no one has even come close to doing such a combined theoretical and empirical study of the discounting area. In fact, it is doubtful a researcher today could find a similarly large group of comparable discount cases that contain enough data to analyze correctly. If I am correct then, sadly, there currently is no way to test whether Professor Hovenkamp's proposed rules are better than other plausible decision rules, such as the rule proposed only for discussion purposes below in Section V of this Article. Since we cannot currently perform the crucial empirical analysis, however, there is no basis for concluding that we should depart from the rule of reason approach to cases involving discounting by monopolists or would-be monopolists.

## V. ALTERNATIVE POLICY SOLUTIONS

Although for now antitrust policymakers should continue to evaluate these discounts under a rule of reason, the field should start thinking about carving out a few modest presumptions of legality or illegality. They should only be adopted, however, if policymakers first can accumulate a reasonable amount of evidence that these rules or presumptions are likely to do more good than harm.

Each of the following alternative rule or presumption possibilities rests, implicitly, upon assumptions that discounts are more likely to be anticompetitive, and that discounts' efficiencies are likely to be less common than *D&E* suggests. These options are presented for discussion purposes only since the empirical evidence that would support them, like the support for *D&E*'s rules, is too thin. Each of these three rules or presumptions is designed only for cases involving single-product discounts.<sup>68</sup> Each should help to enhance business planning and certainty.

### A. *Ban All "First Dollar" Discounts by Firms with, or by Firms Attempting to Obtain, Monopoly Power*

The first possible rule would be to ban all "first dollar" discounts by firms with, or firms attempting to obtain, monopoly power, unless these discounts can be justified by efficiencies. (A "first dollar" discount would provide, e.g., that if a customer increases its purchases from 800 units to 1000 units, all the units it purchases will be priced at \$100 instead of at \$125 each.)<sup>69</sup> However,

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<sup>68</sup>These presumptions should apply only in the single-product situation. If the monopolist sells more than one product, it could nominally sell product X for the same price to everyone but give customers that purchase product Y a discount on product Y in a manner that made this discount the equivalent of giving them a discount on product X.

<sup>69</sup>This proposal is a simplified version of the approach contained in the DG Competition Paper:

Conditional rebates that are granted on all purchases in the reference period once a certain threshold is exceeded can have a strong foreclosure effect. . . . If the

since customers like receiving discounts and discounts can give rise to efficiencies, the manufacturer could instead offer marginal or “step down” discounts as a less restrictive alternative.<sup>70</sup> *D&E* does not present any evidence that any legitimate efficiency from discounting cannot be obtained by a manufacturer offering a price of, for example, \$150 for the first 250 units, \$125 for the next 250 units, \$100 for the third 250 units, etc.<sup>71</sup> These “marginal” or “step down” discounts would be legal, subject only to normal predatory pricing rules. By contrast, “first dollar” or “all purchases” discounts would be illegal unless they were justified by the defendant’s proof that they were necessary to obtain significant efficiencies.<sup>72</sup>

*B. Attribute the Entire Discount to the Marginal Units They Help to Sell and Then Use Normal Predatory Pricing Rules*

The second proposed rule would not be to ban all “first dollar” discounts, but instead to attribute the entire discount on multiple units of a single product to the marginal units where sale of the marginal units is assisted by the discounts, and then to ban “negative pricing” completely and also to employ normal predatory pricing tests.<sup>73</sup> However, there should not be a recoupment

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threshold is set above the amount that would otherwise be purchased, the rebate may induce the buyer to purchase more than it would otherwise do, in particular by diverting purchases from other suppliers to the dominant company, in order to be able to benefit from the rebate on all its purchases and thus effectively lower the price for all its purchases.

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In view of the above, where it is established that: (a) the dominant company applies a conditional rebate system where the rebates are granted on all purchases in a particular period once a certain threshold is exceeded, and (b) there is no indication that this threshold is set so low that for a good part of the dominant company’s buyers it can not hinder them to switch to and purchase substantial additional amounts from other suppliers without losing the rebate, and (c) the required share exceeds the commercially viable amount per customer, and (d) the dominant company applies the rebate system to a good part of its buyers and this system therefore affects, if not most, at least a substantial part of market demand, and (e) there are no clear indications of a lack of foreclosure effect such as aggressive and significant entry and/or expansion by competitors and/or switching of customers, the Commission is likely to conclude that the rebate system creates a market distorting foreclosure effect and thus constitutes an abuse of the dominant position.

DG COMPETITION PAPER, *supra* note 8, ¶¶ 152, 162, at 44, 49–50 (citation omitted).

<sup>70</sup>It is the retroactive nature of the “first dollar” discount that is suspect.

<sup>71</sup>Nor do I know of any such evidence.

<sup>72</sup>The defendant would have the burden of proving that these significant efficiencies could not be achieved without the “first dollar” discounts. These efficiencies would not be presumed.

<sup>73</sup>“Negative pricing” will be defined later in this subsection. These tests also should include a requirement that the defendant have monopoly power or is attempting to obtain monopoly power in a well-defined market.



requirement in these cases<sup>74</sup> because the exclusion achieved under these discounts can be costless for the firm undertaking the practices.<sup>75</sup>

This is in fact a variation of Professor Hovenkamp's "attribution" test.<sup>76</sup> Although he developed this test for two-product situations, it easily could be used to evaluate the discounts involving just the marginal, contested units for one product, a virtually identical situation.<sup>77</sup> Moreover, this approach was adopted in the recent DG Competition Paper on exclusionary practices under Article 82.<sup>78</sup>

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<sup>74</sup>For an explanation of the recoupment requirement, see *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 225–26 (1993). For an explanation of why the recoupment requirement should not be extended to pricing schemes that do not require short-term profit sacrifices to be successful, see John B. Kirkwood, *Buyer Power and Exclusionary Conduct: Should Brooke Group Set the Standards for Buyer-Induced Price Discrimination and Predatory Bidding?*, 72 ANTITRUST L.J. 625, 632, 636–37, 654–55 (2005).

<sup>75</sup>As the example in Section B demonstrates, the dominant firm need not lose anything in the short term by adopting these pricing schemes, and there is accordingly no need to recoup anything. As this example illustrates, sometimes "discounts" can be phony subterfuges; the "discounted price" can actually be the profit-maximizing monopoly price that the firm would like to charge, whereas the "list price" can be an artificially inflated price used to threaten and penalize customers. A recoupment requirement therefore would not serve as a meaningful way to filter out frivolous cases. Instead, it would at best be a superfluous burden that could discourage meritorious cases, and at worst it would immunize anticompetitive discounting.

<sup>76</sup>See Hovenkamp, *supra* note 1, at 853 ("To see whether a package price is 'exclusionary' in this sense, then, one simply attributes the entire discount on all products in the package to the product for which exclusion is claimed." (citations omitted)).

<sup>77</sup>This is because the demand for many products or services can be thought of as dividing into segments of varying degrees of contestability or competitiveness. Depending on the time and other factors involved, some customers are relatively locked in while others can readily switch. For this reason, a single product can be thought of as analogous to multiple products. The relatively competitive segment of a market for a single good can be thought of as the equivalent of being a different product from the relatively non-competitive segment. These market segments can be analyzed separately.

If firms use all-units discounts or rebates and if part of an OEM's demand is locked-in to the dominant firm in the short run (because of staggered contracts, technical needs, etc.), the analysis of the single good case becomes very similar to the analysis of the bundled rebates case. The dominant firm can leverage its market power in the locked-in segment (i.e., the monopoly segment) to foreclose the rival from the rest of the OEM's purchases (the competitive segment). Thus, under certain conditions, single-product and multi-product discounts are virtually identical.

Using Professor Hovenkamp's attribution test for the single-product discount situation would mean, in effect, considering the inframarginal and marginal units of the product in question as if they were different products that were being tied together. If Professor Hovenkamp's attribution test were used, the pricing would be illegal.

<sup>78</sup>See DG COMPETITION PAPER, *supra* note 8, ¶¶ 152–65, at 44–51. This suggests, albeit not very clearly, to attribute the entire discount on multiple units of a single product to the marginal units whose sale is helped by the discounts. Then predatory pricing tests presumably can be used.

In case the required share differs significantly between customers because of differing rebates, the Commission will not calculate the average share for all customers but an average share per group of customers with a similar rebate. It will

In the example discussed above, this approach would entail attributing the entire discount, for all 1000 units, to the marginal 200 units that the discount helped to sell. Specifically, in this example this would mean attributing a discount of  $\$25 \times 1000 = \$25,000$  to the marginal 200 units. If we do this, we correctly see that the marginal units are being sold for nothing.<sup>79</sup> If we perform this attribution, then the cost of the software to MS would be positive<sup>80</sup> while its price would be zero. MS accordingly would correctly be found to have engaged in unlawful predatory pricing.<sup>81</sup> Alternatively, if the facts were

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evaluate the importance of these different groups of customers for entry and expansion.

*Id.* ¶ 155 n.101, at 46.

**Box: A retro-active rebate and calculation of the effective price**

Rebate of 2.5% on all sales once  $St > 1,000,000$

St is the purchased amount in the reference period

Price per unit = 100 before rebate Price per unit = 97.5 after rebate

Commercially viable amount = 5% or 50,000 units

With rebate:  $1,000,000 \times 97.5 = 97,500,000$

Without rebate:  $950,000 \times 100 = 95,000,000$

The difference of 2,500,000 is what is paid for the last 50,000 units over which the suction effect is calculated

P effective (Pe) over the last 5% =  $2,500,000 / 50,000 = 50$

The question is thus whether or not  $ATC > 50$  47

**Box: calculation of the required share in case of a uniform rebate %**

The required share (RQS) is calculated as follows:

$RQS = R \times P / (P - ATC)$

Where R is the rebate percentage customers obtain once they have purchased more than the threshold, P is the (list) price without the rebate and ATC is the average total cost of producing the product of the dominant company.

For instance, where the rebate is 5%, P is 100 and ATC is 75:

$RQS = 5\% \times 100 / (100 - 75) = 20\%$

*Id.* ¶¶ 154–55, at 46–47. The DG Competition Paper says similar things in the tying section:

The incremental price that customers pay for each of the dominant company's products in the bundle should therefore cover the long run incremental costs of the dominant company of including this product in the bundle. This would allow an equally efficient competitor with only one product to compete profitably against the bundle.

*Id.* ¶ 190, at 57 (footnote omitted).

<sup>79</sup>The nominal cost of the marginal 200 units would be  $125 \times 200 = \$25,000$ , which would equal the discount attributed to them.

<sup>80</sup>While the marginal cost of producing and distributing software is very low, it is not zero.

<sup>81</sup>This outcome would be more likely to occur if we attribute some of the development costs of the software to the cost of each unit of the software, as Professor Hovenkamp suggests in footnote 9 of his article. Hovenkamp, *supra* note 1, at 842 n.9. If this were done, MS certainly would be selling unit numbers 801 to 1000 for far less than cost; thus, under the attribution test MS surely would be guilty of predatory pricing.

different, and if the discounted price were above cost<sup>82</sup> even after attributing the entire discount to the marginal output,<sup>83</sup> then MS's discounts should be legal.

In the extreme, the use of this attribution rule could mean that some sales would (correctly) be found to be at negative prices! In the example presented above, suppose that the price was \$125 for each unit until the 1000th unit was purchased, in which case the retroactive price for every unit would be \$100. This would mean that the cost for 999 units would be  $999 \times \$125 = \$124,875$ , while the cost of 1000 units would be  $1000 \times 100 = \$100,000$ . This would mean that the actual "cost" of the 1000th unit to the purchaser would be *negative* \$24,875! This type of discount should be per se illegal, and any retroactive discount that could result in negative pricing should be per se illegal.

This type of functional or disguised negative pricing does not reflect efficiency or produce enhanced long-term planning (other than the certainty that comes from the elimination of competition) or any other legitimate benefits. Rather, it forces the purchaser to buy a quantity calculated by the monopolist to harm its rivals or would-be rivals. This pricing structure almost certainly is motivated by a dominant firm's desire to exclude or weaken smaller firms or would-be entrants. Moreover, if the discount were correctly attributed to the marginal units, the dominant firm would clearly be guilty of predatory pricing.<sup>84</sup>

However, a predatory pricing test—even one as theoretically sound as the one proposed in this Section—would as a practical matter snare the parties into the expensive, unpredictable, daunting quagmire, one that almost always ends in a finding of legality that characterizes predatory pricing litigation. For this reason, the previous alternative—banning all "retroactive" or "all purchases" discounts unless they can be justified by significant efficiencies—would be preferable.

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<sup>82</sup>Whether pricing was "above cost" would be decided under the applicable predatory pricing rule.

<sup>83</sup>This also assumes the acceptance of Professor Hovenkamp's refinement of the average variable cost standard, as articulated in footnote 9 of *D&E*. Hovenkamp, *supra* note 1, at 842 n.9.

<sup>84</sup>As noted earlier, any legitimate purpose of the discounting could instead be achieved by a marginal or "step down" discount; i.e., a price of \$150 for the first 250 units, \$125 for the next 250 units, \$100 for the third 250 units, etc. It is the retroactive nature of the discount that is suspect.

*C. Published Quantity-Based Discounts That Are Available to Everyone Should be Legal, Unless They Violate Normal Predatory Pricing Rules*

Finally, published discounts that are quantity-based (not percentage-of-use based<sup>85</sup>) and are available to everyone, with no other products or services involved or other strings attached, should also be legal, unless they violate normal predatory pricing rules.<sup>86</sup> The rationale for this rule would be that the exclusion strategy outlined earlier is based on the monopolist targeting its rival's marketing efforts to specific customers. Any defendant that wanted its conduct to fall within this safe harbor would not be permitted to go to OEM A and tell it (as they would if they were targeting entry) that its discount kicks in at 800 units a month, while it kicks in only at 1000 units a month for customer B and at 500 units a month for customer C.<sup>87</sup>

An objection to all of these proposed rules is that they might not go far enough and would fail to immunize many beneficial instances of price discrimination, or would fail to condemn many anticompetitive uses of discounting. This criticism might be valid; these approaches might well be too cautious. Regardless, in light of the paucity of real-world experience with discounts by monopolists or firms seeking to achieve monopoly power, these positions should, for now, only be analyzed and tested empirically by the antitrust community.

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<sup>85</sup>A discount that was percentage-of-use based could have the same effect as a discount that was retroactive. For example, the retroactive discount described in Section II.B *supra* could be considered to be a discount that required a 100% use share.

<sup>86</sup>The Robinson-Patman Act would sometimes require this option anyway. See 15 U.S.C. §§ 13(a)–(f), 21(a) (2000). It requires that sellers to competing resellers not discriminate in the prices charged to different “purchasers of commodities of like grade and quality, where either or any of the purchases involved in such discrimination are in commerce,” and these price differences detrimentally affect competition. *Id.* § 13(a). Sellers must sell to all competing resellers who purchase the identical quantity of products at the same price. They can offer cost-justified quantity discounts, but must justify the discounts and make the same discounts available to all competing resellers. *Id.* Section B of the Act provides that the burden of proof is on the defendant to show a justification for this price discrimination. *Id.* § 13(b). Section C of the Act provides for a number of exceptions. *Id.* § 13(c). However, the Robinson-Patman Act only applies to commodities. *Id.* Many high-tech products can be customized so as to no longer be a commodity.

<sup>87</sup>It is possible, however, that even this alternative could inadvertently immunize some instances of anticompetitive behavior because discounts that are quantity-based and available to anyone can still be exclusionary. If most purchasers in the industry have similar sizes and face a predictable demand, the quantity requirement could easily be chosen to mimic a share requirement. Furthermore, even if OEMs are of different sizes, the dominant firm could offer all OEMs the same contract with quantity-based discounts, with different discount rates applying at different quantity thresholds (e.g., 10% at 1000 units, 20% at 1500 units, etc.). In this case buyers will choose the most appropriate quantity threshold for their size, but, if skillfully designed, these contracts could still produce a substantial amount of exclusivity.

## VI. CONCLUSION

There is a time-honored tradition among academics of devising possible rules and thrusting them into the free marketplace of ideas. These rules are often ignored, but sometimes are subject to the wonderfully Hegelian dialectic of thesis-antithesis-synthesis. The interactions of many such attempts by a disparate group of academics can eventually act to produce a sound public policy decision that can be relied upon by the enforcers and the courts.

But Professor Hovenkamp is not just another academic. He is the preeminent antitrust scholar of our generation, in part because he is the able steward of the uniquely respected Areeda-Turner-Hovenkamp Treatise.<sup>88</sup> He is generally perceived as a reasonable centrist, and Professor Hovenkamp and the treatise have been cited hundreds of times by courts.<sup>89</sup> This gives him a special responsibility to show restraint until he can be sure what the correct rule should be.

For now, Professor Hovenkamp should conclude that it is premature to devise such a comprehensive set of rules to govern this area of antitrust law.<sup>90</sup> This is especially true because retroactive discounts—unlike regular discounts that apply to forward looking units and almost always are procompetitive—have a great potential to cause anticompetitive effects. There is a real danger that if an inappropriate rule is promulgated and adopted by some antitrust

<sup>88</sup>See PHILLIP AREEDA, DONALD F. TURNER & HERBERT HOVENKAMP, *ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION* (Little, Brown & Co. 1978).

<sup>89</sup>A search on February 23, 2006, in Westlaw, in the ALLCASES database, for “antitrust & Hovenkamp” found 609 citations. To find citations to the treatise, a search in this database for “antitrust law” & “(Hovenkamp & Areeda)” found 511 references.

Remarkably similar numbers of citations were found when these same searches were run in Lexis, in the “Federal and State Cases Combined” database: 609 and 509 citations, respectively. (The author is grateful to Robert Pool for these search results.)

<sup>90</sup>The Brief of the United States as Amicus Curiae, arguing against the granting of certiorari in *3M Company v. LePage’s Inc.*, signed by Solicitor General, Ted Olsen, Assistant Attorney General for Antitrust Hew Pate, and others, is instructive:

There is insufficient experience with bundled discounts to this point to make a firm judgment about the relative prevalence of exclusionary versus procompetitive bundled discounts. Relative to the practice of predatory pricing . . . there is less knowledge on which to assess whether, or to what extent, the legal approach to a monopolist’s allegedly exclusionary bundled discounts should be driven by a strong concern for false positives and low risk of false negatives. . . . Further empirical development may shed light on that question.

....

. . . [T]he Court should not attempt to craft an alternative test. Instead, the Court would be well served to await further development of the case law, and further insights from academic commentary . . . .

Brief for the United States as Amicus Curiae Supporting Respondent at 14–15, *3M Co. v. LePage’s Inc.*, 542 U.S. 953 (2004) (No. 02-1865), 2004 WL 1205191, available at <http://www.usdoj.gov/atr/cases/f203900/203900.pdf> (citation omitted).

decision makers, the field could be stuck with it for decades. Discounts should, for now, be evaluated under the rule of reason. The most we should consider doing now is to discuss modest and non-controversial rules of legality and illegality. However, the state of our empirical knowledge does not permit us to go any further.