Loyalty/requirement rebates and the Antitrust Modernization Commission: What is the appropriate liability standard?

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I. INTRODUCTION

A number of alternative economic standards have been proposed for establishing antitrust liability in cases with requirement/loyalty practices both in the context of a single product and multiproduct markets. In general terms, the problem can be described as follows.

Single-product case: A dominant firm in market *A* sells at a constant per unit price. Provided the particular buyer commits to buying a large percentage or all of his "needs" from the dominant firm, the seller also offers a "retroactive"[1] "discount"[2] on all units or a subset of

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[1] The term "retroactive" is used because the "discount" (or difference between prices adhering to and not adhering to the requirement) applies to all units sold in a time period or a subset thereof, while it may be announced in the last part of this time period. This discount is distinguished from an

units below a certain threshold, such as 90% of the buyer's purchases in market *A* during a defined time period. The retroactive discount can be a lower price on all units below the threshold or a subset of these, or it can be a lump–sum discount. The requirement may be "sole-sourcing," i.e., a requirement that a particular buyer buy 100% of his purchases from the dominant firm, or the discount may be available only if a large percentage of the buyer's purchases in market *A*, say 85% or 90% or 95%, are from the dominant firm.[3] The requirement, the base prices, the extent of the discounts, and even the time period on which it applies can vary across buyers.[4]

"incremental" discount which is applied only to the last unit or units sold. For similar definitions, see European Commission, *Guidance on the Commission's Enforcement Priorities in Applying Article 82 EC Treaty to Abusive Exclusionary Conduct by Dominant Undertakings* ¶ 36 (Dec. 2008) [hereinafter *EU Article 82 Guidance*].

[2] The word "discount" here can be misleading. After meeting the condition, the firm receives a price lower than that charged when the condition is not met. However, the price outside the condition as well as the price under the condition may be higher than those of the but-for world, and therefore the "discount" can be illusory. Thus, a loyalty discount can also be called a "disloyalty penalty." *See* Nicholas Economides & Ioannis Lianos, *The Elusive Antitrust Standard on Bundling in Europe and in the United States in the Aftermath of the* Microsoft *Cases*, ANTITRUST L.J. (forthcoming 2009) (manuscript at 3, on file with the author); EINER ELHAUGE, UNITED STATES ANTITRUST LAW AND ECONOMICS 406, 408 (2008); Patrick Greenlee, David Reitman & David S. Sibley, *An Antitrust Analysis of Bundled Loyalty Discount* 23 (Dep't. of Justice, Econ. Analysis Group, Discussion Paper No. 04-13, 2004); Daniel L. Rubinfeld, *3M's Bundled Rebates: An Economic Perspective*, 72 U. CHI. L. REV. 243, 252 (2005).

[3] For the arguments I make here it is not necessary to have the discount apply to all units.

[4] The European Commission also distinguishes between individualized and standardized discounts. In contrast to U.S. antitrust law, EU's article 82 may apply to both types of discounts, although standardized discounts are treated more leniently. *See EU Article 82 Guidance*, *supra* note 1, ¶ 44:

> It is normally important to consider whether the rebate system is applied with an individualized or a standardized threshold. An individualized threshold—one based on a percentage of the total requirements of the customer or an individualized volume target—allows

Multi-product case: A dominant firm in market *A* also sells in market *B*. It sells products *A* and *B* a la carte. Based on a requirement that a particular buyer buy a large percentage or 100% of his needs in both products from the dominant firm, the dominant firm also offers discounts on all units of either *A*, or *B*, or both, or provides a lump-sum discount.[5]

It makes sense to apply the same antitrust standard for discounts on loyalty/requirement practices irrespective of whether we are in a single-product or multiproduct case. In the former case, the demand is divided between an uncontested part that is always purchased from the dominant firm and a contested part of the demand where the customer may buy from any firm.[6] In both the multi- and single-product cases, the dominant firm leverages its monopoly or dominant position to obtain higher sales in the remaining market. The only difference is that in the multiproduct case, sales in market *A* are leveraged to obtain higher sales in market *B*, while in the single-product case, the uncontested sales in market *A* are leveraged to obtain the contested sales in market *A*.[7]

Before going into the details of the proposed legal rules for liability, it is worth making the following observations:

> the dominant supplier to set the threshold at such a level as to make it difficult for customers to switch suppliers, thereby creating a maximum loyalty enhancing effect. By contrast, a standardized volume threshold—where the threshold is the same for all or a group of customers—may be too high for some smaller customers and/or too low for larger customers to have a loyalty enhancing effect. If, however, it can be established that a standardized volume threshold approximates the requirements of an appreciable proportion of customers, the Commission is likely to consider that such a standardized system of rebates may produce anticompetitive foreclosure effects.

Paragraph 45 discusses the efficiencies provided by these two types of discounts.

[5] This setup can easily be extended to collections of more than two goods.

[6] This conforms with the definitions used by the European Commission. *See EU Article 82 Guidance, supra* note 1.

[7] For a discussion of the "attraction effect" of rebates from the dominant firm's perspective and the inherent bias of the system to perpetuate and reinforce the dominant firm's position in the market, see Martin Bechenkamp & Frank P. Maier-Rigaud, *An Experimental Investigation of Article 82 Rebates Schemes*, 2 COMPETITION L. REV. SUPP. 1, 14 (2006). Leveraging because of an

A. *Requirement/loyalty programs can be profitable for a dominant firm even if there are no cost savings from joint production, joint distribution of products* A *and* B *or from higher production levels*

As I will discuss below, the introduction of requirement/loyalty discount programs can work for the benefit of the dominant firm because such programs enable the extension of the monopoly from one market to the other or from one segment of the market to another segment of the market. Thus, the profitability for the dominant firm of the introduction of such a requirement/loyalty discount program is not dependent on cost savings of joint production or joint distribution (economies of scope) in the multiproduct case, or on higher sales of operation and therefore wider spreading of fixed costs (economies of scale) in the single-product case. The leverage can be a sufficient and profitable justification for the introduction of requirement/loyalty discount programs in the absence of any cost savings of joint production, joint distribution, or higher sales of operation. If such savings exist, they can be taken into consideration as efficiencies to counterbalance consumer losses, but cost savings are not necessary causes for a dominant firm to profitably introduce a requirement/loyalty discount program.

B. *Conditions under which such requirement/loyalty programs are not profitable for a dominant firm are exceptional*

Clearly a bundling program can be profitable because of savings in joint production or joint distribution costs. Similarly in the single-product case, economies of scale can lead to increased profits in the presence of a loyalty discount program. For the arguments of this subsection, let us assume that there are no joint production or joint distribution savings in the multiproduct case or economies of scale in the single-product case. Under these circumstances, profit increases as a result of the introduction of the loyalty/requirement program must come from revenue enhancement. The objective of a

attraction effect may have inspired the position of the EU on conditional rebates. *See EU Article 82 Guidance, supra* note 1, ¶ 38. *See also* Ioannis Lianos & Abel Mateus, *Antitrust in the New U.S. Administration: A Transatlantic View*, GLOBAL COMPETITION POL'Y MAG., Jan. 2009, at 30, *available at* http://ssrn.com/abstract=1399693.

requirement/loyalty discount program then is to extract more consumer surplus and convert it to profit of the seller.[8] To be profitable, the dominant firm's bundling scheme needs to leverage some leftover consumer surplus in market *A* to induce the buyer to buy more of product *B* from the dominant firm. If a buyer is left with no consumer surplus before the bundle is introduced, the seller has no leverage to induce the buyer to buy more of product *B* from him. Additionally, if a dominant firm in market *A* is able to extract the full consumer surplus from each and every consumer in market *A*, there is no additional surplus in market *A* that the dominant firm can gain by introducing a requirement/loyalty program that involves market *B*.

Thus, under very special conditions, when prior to the introduction of the requirement/loyalty program a monopolist in market *A* is able to extract the full consumer surplus from each and every consumer in market *A*, the requirement/loyalty program would not be useful in increasing profits to a dominant firm.[9] This can occur when each buyer buys only one unit and the seller is able to sell to each buyer at the price that buyer is willing to pay, thereby leaving no consumer surplus for any buyer. Or, more generally, a seller sells many units to each buyer, but is able to offer very sophisticated individually tailored pricing that extracts all consumer surplus from all units bought by each buyer.

In the very special case described above, profitable requirement/loyalty practices can be explained only on the basis of efficiencies in

[8] Consumer surplus is the difference between what consumers are willing to pay and what they actually pay in a purchase. It represents the net benefit to consumers.

[9] This assumes that the dominant firm cannot use threats that it will not sell the full demanded quantity to buyers that do not adhere to the requirement program. When facing a competitor that is unable to fulfill the uncontested part of the demand, such threats can easily be used to threaten a reduction in the profitability of buyers who have optimized their scale to use the exact quantity they demand from the dominant seller. In that case, even when the dominant firm is able to extract the full consumer surplus from every consumer in market *A*, it can still use the threat of not selling to each buyer the full amount of the uncontested part of their demand so as to profitably gain market share in market *B* or the contested part of market *A*.

joint production, joint distribution, or economies of scale.[10] However, in many product markets, each buyer buys more than one unit and typically the same buyer assigns a different value (willingness to pay) to each of the various units he demands. Then, each buyer is left with a positive consumer surplus under a single-price monopoly, and therefore the requirement program can help the monopolist to extract more surplus from each buyer in market *A*. Additionally, even if each buyer bought only one unit, typically different buyers vary in their willingness to pay. Then again, a single-price monopolist will not be able to extract all consumer surplus from the market.[11] The requirement/loyalty programs can be sufficiently tailored to the scale of each buyer (based on a percentage of his purchases of similar products) so that again more surplus is extracted by the monopolist.

C. *Requirement/loyalty programs have implications dramatically different from volume discounts, including possible negative prices for ranges of units*

A discount given on the basis of a requirement/loyalty program should be applied to the units that are contested by a competitor in the same market, or in the second market in the multiproduct case. When such discounts are subtracted from revenue from contested units, the resulting effective price for the contested units can be below cost, and even negative, as shown below. This is quite different from a volume discount for the last few units (an incremental discount) which typically will result in prices above cost. Additionally, a volume discount (something like taking 15% off the price of units above unit 90) will affect the same set of units for each buyer. In contrast, a requirement/loyalty program can be written so that the discount will apply to different buyers according to the percentage of their purchases from the dominant firm, and therefore it can affect different units for each buyer. For example, a discount based on a 90% requirement/loyalty program affects different units when applied to a buyer

[10] See Aaron Director & Edward H. Levi, *Law and the Future: Trade Regulation*, 51 NW. U. L. REV. 281, 290 (1956).

[11] Even a quantity-based price discount, if the same discount is available to all buyers of the same quantity, will leave some consumer surplus with buyers when the buyers vary in their demand for the product.

of 100 units than when applied to a buyer of 1000 units. Finally, a volume discount will tend to be less restrictive since it will not require that fewer purchases be made from the rival(s).

D. *Requirement/loyalty retroactive rebates change the nature of competition from competition for the last unit to competition for large chunks of the demand*

Small changes in the amount bought from a rival can make a difference in whether a buyer receives a rebate from the dominant firm or not. For example, consider a buyer who buys 100 units in total from the dominant firm and the rival. If the dominant firm's lump-sum rebate kicks in at the 90th unit, it is very unlikely that the buyer will buy 89 units, just short of achieving the quota necessary for the rebate. A buyer that might have bought 80 units in the but-for world in the absence of the rebate will consider buying 90 units to receive the rebate. Thus, competition is no longer for the last unit (the 81st unit to be sold by the dominant firm) as in the but-for world, but for whole chunks of the demand, here units 81 to 90. This favors the dominant firm and can lead to foreclosure of the rival who has to fight not only for the 81st unit of the dominant firm (his 19th unit) as in the but-for world, but for units 81–90 (his units 10–19). This was understood by the European Commission:

> Retroactive rebates may foreclose the market significantly, as they may make it less attractive for customers to switch small amounts of demand to an alternative supplier, if this would lead to loss of the retroactive rebates.[12]

E. *Entry issues*

The existence of the requirement/loyalty practice by a dominant firm can foreclose rivals or reduce their scale of operations and increase their costs. At the same time, the requirement/loyalty practice raises the barriers to entry making the business environment less competitive.[13] In both the single-product and multiproduct cases, the monopolist can deter a new entrant by locking customers into a

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[12] *EU Article 82 Guidance*, *supra* note 1, ¶ 15.

[13] *See* Barry Nalebuff, *Bundling as an Entry Barrier*, 119 Q.J. ECON. 159 (2004).

requirement/loyalty contract. All other things being equal, the customer will decide to break the contract with the monopolist only if it is compensated by the new entrant's lower price. That is, the monopolist has lowered the incentives for entry and thus created barriers for a potential new entrant to compete as an efficient competitor.[14]

A dominant firm with market power in two markets where a typical buyer buys both products can protect itself from entry in either of the markets by offering the requirement/loyalty contract. Thus, requirement/loyalty contracts may be used as entry-deterring devices by making it economically unprofitable for an entrant to enter one market without simultaneously entering the second market.[15]

II. ALTERNATIVE STANDARDS FOR LIABILITY

A number of alternative standards for liability have been proposed. I discuss them from the most lenient standard to the strictest standard.

A. Total bundle cost/revenue comparison

To apply this standard, proposed by Professor Tim Muris to the Antitrust Modernization Commission (AMC),[16] first you calculate the total revenue paid for a bundle under the requirement/loyalty contract after all discounts are applied. If the resulting revenue is above

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[14] See Phillip Aghion & Patrick Bolton, *Contracts as a Barrier to Entry*, 77 AM. ECON. REV. 388 (1987). The paper shows that a monopolist can extract a new entrant's technology advantage using contracts which require 100% of a customer's total purchases.

[15] *See, e.g.*, Nalebuff, *supra* note 13; Rubinfeld, *supra* note 2, at 257; and Aaron S. Edlin & Daniel L. Rubinfeld, *Exclusion or Efficient Pricing? The "Big Deal" Bundling of Academic Journals*, 72 ANTITRUST L.J. 119 (2004).

[16] *See* Timothy J. Muris, *Comments on Antitrust Law, Economics, and Bundled Discounts* (submitted to the AMC on behalf of the United States Telecom Ass'n, July 15, 2005). *See also* Timothy J. Muris, *Antitrust Law & Economics: Exclusionary Behavior, Bundled Discounts and Refusals to Deal* (Nov. 29, 2006). This standard was also proposed by Pacific Telephone Co. and Visa USA and rejected by the 9th Circuit in *PeaceHealth*. *See* Brief of Pacific Tel. Co. & Visa USA as Amici Curiae Supporting Appellant, Cascade Health Solutions v. PeaceHealth, 542 F.3d 668 (9th Cir. 2008) (No. 05-36153).

variable cost (avoidable cost), there is no liability. If the resulting price is below avoidable cost, you examine whether the loss can be reasonably recouped. There is antitrust liability only if the loss cannot be reasonably recouped.

This standard completely ignores *bundling* issues. You can easily have a collection of products sold above cost while some of the products are individually sold below cost. This concept of having a collection of products sold above cost while some are individually sold below cost has been well understood in telecommunications markets since the 1970s, when competition emerged in some markets while monopoly remained in others. In effect, the Muris standard makes bundling per se legal, as pointed out by Jonathan Jacobson,[17] since the Supreme Court has accepted a comparison of the defendants' costs and revenues as a predation test, whether or not there is bundling involved.[18] Thus, the Muris standard is clearly inappropriate for judging bundling and requirement practices issues.

B. *The AMC standard for multiproduct conditional discounts*

To apply this standard, you take all the conditional discounts given to a particular buyer and apply them to *all* the units of product *B* (the nonmonopolized product) sold by the dominant firm/monopolist in market *A* to this buyer, thereby creating an "effective price" for product *B*. An antitrust violation exists only if all three of the following conditions hold: (1) the resulting "effective price" is below the average variable cost of product *B of the monopolist* in product *A*; (2) the dominant firm is likely to recoup its losses; and (3) the requirement contract is likely to have anticompetitive consequences.[19] The AMC suggests the following safe har-

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[17] Jonathan M. Jacobson, *Exploring the Antitrust Modernization Commission's Proposed Test For Bundled Pricing*, ANTITRUST, Summer 2007, at 23.

[18] *See* Brooke Group Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209 (1993); and Weyerhaeuser Co. v. Ross-Simmons Hardwood Lumber Co., 127 S. Ct. 1069 (2007).

[19] *See* ANTITRUST MODERNIZATION COMMISSION, REPORT AND RECOMMENDATIONS 99 (Apr. 2007) ("Courts should adopt a three-part test to determine whether bundled discounts or rebates violate Section 2 of the Sherman Act. To prove a violation of Section 2, a plaintiff should be required to show each

bor: no antitrust violation exists if the resulting effective price is above average variable cost of product *B of the monopolist* in product *A*.[20]

The AMC standard for multiproduct conditional discounts has a number of defects. First, it uses the monopolist's costs rather than the rival's costs for the competitive product *B*, even though the rival can have higher costs because of the anticompetitive actions of the dominant firm. For example, if there are increasing returns to scale in market *B*, the denial of scale to the competitive firm in market B because of the dominant firm's actions will result in higher costs for the competitive firm. Thus, if this standard is applied, the competitive firm can be foreclosed because it appears to be inefficient even when it would have been efficient (and therefore not foreclosed) but for the anticompetitive effects of the requirement contract.[21]

Second, even a higher-cost competitor can constrain price and increase consumer surplus. Therefore inefficient rivals should not be automatically excluded.[22] This is a fundamental flaw of the test, which looks only on the production side of the market and disregards the

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one of the following elements (as well as other elements of a Section 2 claim): (1) after allocating all discounts and rebates attributable to the entire bundle of products to the competitive product, the defendant sold the competitive product below its incremental cost for the competitive product; (2) the defendant is likely to recoup these short-term losses; and (3) the bundled discount or rebate program has had or is likely to have an adverse effect on competition."). *See also* ELHAUGE, *supra* note 2, at 413.

[20] The AMC uses the words "incremental cost" in its cost criterion. Often average variable cost (AVC) is used instead. The EU uses the terminology average avoidable costs (AAC) to denote costs that can be avoided if the units in question are not produced. *See infra* section II.D. However, it should be understood that AAC and AVC include the cost of additional plants (or plant expansion) and fixed investment required to produce the additional units.

[21] See Economides & Lianos, *supra* note 2, at 20; ELHAUGE, *supra* note 2, at 412.

[22] Excluding entrants on the grounds of productive inefficiency (or creating tests that would exclude less efficient entrants out of hand) can reduce consumer surplus and increase allocative inefficiency (divergence of prices from costs). *See, e.g.*, Nicholas Economides & Lawrence J. White, *Access and Interconnection Pricing: How Efficient is the "Efficient Component Pricing Rule"?*, 40 ANTITRUST BULL. 557 (1995); Nicholas Economides & Lawrence J. White, *The*

effects of market organization on consumer surplus. Since consumer surplus can increase because of entry of even an inefficient rival when the inefficient rival prices below the monopoly price of the dominant firm, requiring productive efficiency of a nondominant rival (as the test does) may conflict with achieving higher consumer surplus. Thus, application of the AMC standard will result in a number of false negatives to the detriment of consumers. If a test such as the one proposed by the AMC is to be employed, it should compare the effective price with the rival's costs when the rival is operating efficiently. The crucial question is whether the rival in market *B* could survive if acting efficiently, not the monopolist, and if the entry or survival of the rival constrains prices and increases consumer surplus.

Third, in the presence of product differentiation (either in variety or in quality) the AMC test makes little sense. Since a rival to the dominant firm does not offer the same products, why should we be using the dominant firm's costs to evaluate the survival of the rival's products that differ in quality and variety from those of the dominant firm? Moreover, when the products are differentiated, consumers may gain from the presence of additional varieties and qualities offered by the rival even if the rival prices higher than the dominant firm.[23]

Fourth, if such a test is to be used, it should be applied only to the contested units of products *A* or *B* (or both), and not to all units of *A* or to all units of *B*, again asking the questions whether the rival can survive under the requirement practice and if consumer surplus increases in the presence of the rival.[24] In many markets, a significant portion of

Inefficiency of the ECPR Yet Again: A Reply to Larson, 43 ANTITRUST BULL. 429 (1998); Nicholas Economides, *The Tragic Inefficiency of M-ECPR*, *in* DOWN TO THE WIRE: STUDIES IN THE DIFFUSION AND REGULATION OF TELECOMMUNICATIONS TECHNOLOGIES 142 (Allan L. Shampine ed., 2003).

[23] See Steven C. Salop, *Question: What is the Real and Proper Antitrust Welfare Standard* (Statement to AMC, Nov. 4, 2005) and Steven C Salop, *Exclusionary Conduct, Effect on Consumers, and the Flawed Profit-Sacrifice Standard*, 73 ANTITRUST L.J. 311 (2006); Nicholas Economides, *Quality Variations in the Circular Model of Differentiated Products*, 23 REGIONAL SCI. & URB. ECON. 235 (1993).

[24] This, of course, is not because antitrust is concerned with the survival of the rival per se, but because the survival of the rival will constrain price and increase variety and quality to the benefit of consumers.

the sales of the dominant firm is uncontested by competitors. This may be because of reputation, fear of punishment of executives if something goes wrong when they do not buy from the dominant firm ("nobody gets fired for buying from IBM"), complementary investments by buyers of the dominant product, limitations in the production capacity of the competitor, and many other reasons. Obviously the dominant firm does not offer a loyalty discount to attract buyers to the uncontested part of the demand since it already is able to sell these units at full price. Instead, the requirement/loyalty discount is offered to attract customers in the contested part of the demand. Therefore its impact has to be analyzed on that part of the demand. Whether the loyalty discount is applied to the contested part of the demand or not can make a big difference to the outcome of the test, as we will see below in the discussion of the EU guidance standard, which applies the discount only to the contested part of the demand.

Fifth, the loyalty/requirement discount reduces price transparency and thereby may decrease competition. It will be difficult for a rival to accurately calculate the effective price offered by the dominant firm to particular buyers and thereby attempt to match it.[25] This uncertainty may reduce price competition, and this is ignored by the proposed test.

Sixth, the recoupment prong is irrelevant because it is not clear that the monopolist actually loses money under the requirement contract compared to the but-for world. The difference between prices with and without the requirement contract does not necessarily imply losses for the monopolist because the monopolist can increase both a la carte and bundle prices as the introduction and acceptance of the requirement contract gives him more market power. When the dominant firm's price outside the requirement/loyalty contract is higher than in the but-for world, this is an indication that the action is anticompetitive.[26] To see this, consider the model of Greenlee et al.[27] They

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[25] Additionally, buyers may find it difficult to compare prices in a la carte and bundled offerings. *See* Barry Nalebuff, *Exclusionary Bundling*, 50 ANTITRUST BULL. 321, 322 (2005).

[26] *See* Economides & Lianos, *supra* note 2, at 21; Einer Elhauge, *Defining Better Monopolization Standards*, 56 STAN. L. REV. 253, 284–94 (2003).

[27] *See* Greenlee et al., *supra* note 2.

show how a monopolist can extend his monopoly in market *A* to market *B* through offering the *bundling scheme* with a requirement that all or almost all purchases be made from the monopolist and simultaneously increasing the price of the monopolized product when it is offered on a stand-alone basis. Greenlee et al. show in their theorem 2 that the application of this *bundling scheme* reduces consumer welfare. They devise a test to ascertain whether there are consumer losses for the case of undifferentiated products: "If the firm maximizes profits and the standalone price of *A* exceeds the initial price of *A*, then we can infer that the bundled rebate reduces consumer welfare."[28] The fact that a dominant firm's profit sacrifice is not necessary in a requirement/loyalty rebate is shared by the European Commission: "Conditional rebates can have such [actual and potential foreclosure] effects without necessarily entailing a sacrifice for the dominant undertaking,"[29] with accompanying footnote: "In that regard, the assessment of conditional rebates differs from that of predation, which always entails a sacrifice."[30] Thus, the analysis of requirement/loyalty programs under the modified predatory pricing standard of the AMC is misguided.[31]

Seventh, the acceptance of the requirement contract by buyers does not necessarily imply higher consumer surplus since buyers find themselves in a prisoners' dilemma setting. It may be optimal individually for each buyer to buy under the requirement so that he is not penalized by the higher prices outside the requirement, but collectively all buyers lose because of the increase in market power of the monopolist as more buyers accept the requirement. An individual

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[28] *Id.* at 23. *See also* ELHAUGE, *supra* note 2, at 409 ("Consumer welfare will be harmed without any substantial foreclosure, as long as the standalone price exceeds the but-for independent monopoly price, unless there are offsetting efficiencies.").

[29] *EU Article 82 Guidance, supra* note 1, at ¶ 14.

[30] *Id.* at 14 n.26.

[31] Additionally, bundling can also be used to create threats of higher a la carte prices, even if all consumers buy under the bundle and therefore the threat of buying at higher a la carte prices is not enforced at equilibrium. *See, e.g.*, Barry Nalebuff, *Tried and True Exclusion*, 1 COMPETITION POL'Y INT'L 41 (2005).

buyer's acquiescence to buying under the requirement does not imply that collectively buyers are better off compared to the but-for world.

Eighth, the third prong of the test is also irrelevant. There is no need to look for additional anticompetitive consequences since the requirement/loyalty practice itself can result in such.

In summary, compared to the but-for world, consumer surplus can decrease because of the introduction of the requirement practice even in AMC's safe harbor where the effective price exceeds avoidable cost. Product differentiation makes the safe harbor even less applicable. Adoption of the AMC standard could result in exclusionary conduct that would not violate the test. Because of all the reasons above, the safe harbor proposed by the AMC—no antitrust violation exists if the resulting effective price is above average variable cost of product *B* of the monopolist in product *A*—may result in exclusionary conduct that would not violate the test. The above shows that there are many actions that qualify for the AMC safe harbor that are still harmful to consumers.

C. *The* PeaceHealth *standard of the Ninth Circuit for multiproduct conditional discounts*

The PeaceHealth standard is essentially the first prong of the AMC test. It works as follows. Take all the conditional discounts and apply them to all the units of product *B* (the nonmonopolized product) sold to a particular buyer by the monopolist in *A*. An antitrust violation exists only if the resulting effective price is below the average variable cost of the monopolist.[32] This safe harbor standard was adopted by the U.S. Department of Justice under the George W. Bush administration in the single-firm section 2 report[33] but was recently rescinded by the Department of Justice under the Obama administration, together with the rest of the enforcement provisions of the section 2 report.[34]

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[32] *See* Cascade Health Solutions v. PeaceHealth, 515 F.3d 883, 906–10 (9th Cir. 2008).

[33] See Dep't of Justice, *Competition and Monopoly: Single-Firm Conduct Under Section 2 of the Sherman Act* 101 (Sept. 2008).

[34] *See* Press Release, Justice Department Withdraws Report on Antitrust Monopoly Law, (May 11, 2009), *available at* http://www.usdoj.gov/atr/public/press_releases/2009/245710.htm.

All the criticisms of the AMC standard apply, except that recoupment is not required by the *PeaceHealth* standard. Adoption of this standard would result in many violations that would not be caught.

D. The EU Article 82 Guidance[35]

To apply the European Commission test, one first determines the "effective price" by applying all discounts to the "contestable" units of product *B* (the nonmonopolized product) in the multiproduct case, or to the "contestable" units of product *A* in the single-product case. The contestable part of the market is defined as "how much of a customer's purchase requirements can realistically be switched to a rival."[36] An antitrust violation exists if the resulting effective price is below average avoidable cost *of the monopolist*. An antitrust violation may exist if the resulting effective price is above average avoidable cost *of the monopolist*, based on more detailed examination. In particular, the Commission notes:

> Where the effective price is between [average avoidable cost] and [long run average incremental cost], the Commission will investigate whether other factors point to the conclusion that entry or expansion even by as efficient competitors is likely to be affected. In this context, the Commission will investigate whether and to what extent rivals have realistic and effective counterstrategies at their disposal, for instance their capacity to also use a "noncontestable" portion of their buyer's demand as leverage to decrease the price for the relevant range. Where competitors do not have such counterstrategies at their disposal, the Commission will consider that the rebate scheme is capable of foreclosing equally efficient competitors.[37]

This test uses the monopolist's costs rather than the competitor's costs, even though the entrant can have higher costs because of the anticompetitive actions of the monopolist; in any case, a higher-cost competitor can constrain price and increase consumer surplus—therefore inefficient competitors should not be excluded. The test is applied correctly to the *contested units* (in either a single-product or a multiproduct case). The impact of the loyalty discount is correctly

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[35] *EU Article 82 Guidance*, *supra* note 1, at ¶ 14.

[36] *Id.* at ¶ 15.

[37] *EU Article 82 Guidance*, *supra* note 1, at ¶ 43. Long run average incremental cost includes all variable and fixed costs.

applied to the contested units, where its effect is large, rather than to all units, which include the portion of the monopolist's sales that are not contested and would have remained with the monopolist in the absence of a discount.[38] Because the European Commission applies the discounts to a relatively small number of units while the AMC and *PeaceHealth* standards apply the discounts to all units, the Commission approach will correctly discover violations which would remain undiscovered by the AMC and *PeaceHealth* standards.

For example, assume that the total requirement of a buyer is 100 units, the dominant firm's list price is $100, and the dominant firm offers a lump-sum rebate of $1000 conditional on the dominant firm selling a number of units that includes all the uncontested units and some of the contested units of this buyer. If the contested number of units is 80 and the discount is available when at least 20 units are bought from the dominant firm, the effective price is $((100x80) – 1000)/80 = $7000/80 = $87.50, and the percentage discount on the contested units is (list price – effective price)/(list price) = 12.5%. As the contested number of units decreases and the required number of units to get the discount increases, the implied discounts rise dramatically as seen in the table. For example, when the contested number of units is 30, the percentage discount is 33%; when the contested number of units is 20, the percentage discount is 50%; 15 contested units imply a discount of 67%; 10 contested units, a discount of 100% (zero effective price); and 5 contested units a discount of 200% and a negative effective price. Notice that this lump sum discount, which is only 12.5% of the total revenue of the dominant firm from this customer ($1000/$100x80 = 12.5%), has crucial anticompetitive consequences when the contested number of units is relatively small. The effective price can even be negative (here if the number of contested units is

[38] In applying this standard in its *Intel* decision, the European Commission notes that the contestable part of the market can be small. European Union, Press Release, Antitrust: Commission imposes fine of €1.06 bn on Intel for abuse of dominant position; orders Intel to cease illegal practices (May 13, 2009), *available at* http://europa.eu/rapid/pressReleasesAction.do?reference=IP/09/745&format=HTML ("Because computer manufacturers are dependent on Intel for a majority of their x86 CPU supplies, only a limited part of a computer manufacturer's x86 CPU requirements is open to competition at any given time.").

below 10, i.e., contested market share is below 10%) and therefore impossible to match by a competitor.[39] Thus, in cases where the contested market share is small (here 10% or less), one can establish anti-competitive foreclosure effects of the requirement contract even without knowledge of costs, since costs are not negative. The table summarizes the results based on different assumptions on the number of contested units.

Table

Contested Units by the Rival	*Required Units for Discount are at Least*	*Effective Price on Contested Units*	*(Effective Price)/ (List Price)*	*Percentage Discount on Contested Units**
80	20	$87.5	87.5%	12.5%
30	70	$67	67%	33%
20	80	$50	50%	50%
15	85	$33	33%	67%
10	90	$0	0%	100%
5	95	-$100	-100%	200%

*The variable "percentage discount on contested units" is defined as (list price – effective price)/(list price) = 100% – (effective price)/(list price).

[39] In its *Intel* decision, the European Commission provides an example of a rival to the dominant firm that was unable to "sell" its product at zero price because of Intel's loyalty/requirement practice. A computer manufacturer refused an offer to "buy" CPUs fromAdvanced Micro Devices, Inc. (AMD) at zero price because, if it did, it would forgo Intel's loyalty discount, which was based on the requirement that this buyer buy a very large share of its CPU needs from Intel. *Id.* ("Moreover, in order to be able to compete with the Intel rebates, for the part of the computer manufacturers' supplies that was up for grabs, a competitor that was just as efficient as Intel would have had to offer a price for its CPUs lower than its costs of producing those CPUs, even if the average price of its CPUs was lower than that of Intel. For example, rival chip manufacturer AMD offered one million free CPUs to one particular computer manufacturer. If the computer manufacturer had accepted all of these, it would have lost Intel's rebate on its many millions of remaining CPU purchases, and would have been worse off overall simply for having accepted this highly competitive offer. In the end, the computer manufacturer took only 160,000 CPUs for free.").

E. The Ortho *test*

Under the standard in *Ortho*, a loyalty/requirement bundled discount by a monopolist is considered anticompetitive when either "(a) the monopolist has priced below its average variable cost or (b) the plaintiff is at least as efficient a producer of the competitive product as the defendant, but . . . the defendant's pricing makes it unprofitable for the plaintiff to continue to produce."[40]

The first test for liability in *Ortho* is very much like the AMC test, examining whether the dominant firm is pricing below its incremental cost. The second alternative requirement for liability tests whether an efficient plaintiff in product *B* is able to survive given the pricing of the dominant firm. This test is different from the AMC test in the following ways. First, in the absence of joint production or joint distribution cost savings, it allows liability to be established when the dominant firm and the rival have the same cost *curve/function* for product *B*, but the pricing actions (requirement/loyalty programs) of the dominant firm restrict the scale of the rival so that its unit cost at the scale at which it operates is so high that it does not allow it to survive. Thus, it eliminates one of the problems of the AMC test.

Second, this test is based on the efficiency of the rival in production of only product *B*. It is less likely to find liability than the European Commission test because it essentially treats the total production of *B* by the plaintiff as the "contested units" rather than the truly contested number, which may be smaller.

In general, there is no correspondence between consumer surplus changes and success or failure in the *Ortho* test. Thus, while the *Ortho* test may provide indications of liability, it cannot be used as a rule for antitrust liability.

F. Structured rule of reason

Under the structured rule of reason approach that I propose, the court should look at a number of variables to ascertain whether a requirement/loyalty program violates antitrust law, with the central

[40] Ortho Diagnostic Sys., Inc. v. Abbott Labs., Inc., 920 F. Supp. 455, 469 (S.D.N.Y. 1996).

question being whether the introduction of the requirement/loyalty program reduces consumer surplus. Using this approach, a safe harbor cannot be established based on a price/cost test. This is essentially because changes in consumer surplus as a result of entry or expanded operation of a rival nondominant firm do not, in general, correspond directly to any price/cost comparison, as I have argued in the criticism of the AMC standard. Under the structured rule of reason standard, a violation can be established even when none is found by the previous tests, and in particular even when the calculated "effective" price is above the average variable cost of the dominant firm.[41]

The court should look for reductions of consumer surplus as a result of the introduction and acceptance of the requirement/loyalty practice. Among other circumstances, anticompetitive effects are established if any of the following is true in cases of homogeneous goods:

1. the effective price based on contested units (defined above for either good *A* or *B*, or a combination of *A* and *B*) is below the incremental cost of the dominant firm including an allocation of avoidable fixed costs;
2. the effective price based on contested units (defined above for either good *A* or *B*, or a combination of *A* and *B*) is below the incremental cost of the competing firm including an allocation of avoidable fixed costs, and it can be shown that the elimination of the competing firm reduces competition and decreases consumer surplus; or
3. the dominant firm's price outside the requirement/loyalty contract is higher than in the but-for world.

When the effective price based on contested units (defined above for either good *A* or *B*, or a combination of *A* and *B*) is below the incremental cost of the dominant firm including an allocation of avoidable fixed costs, the dominant firm is selling below its own cost. There is no plausible justification for this, so this is a clear indication of an antitrust violation.

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[41] In *LePage's v. 3M Co.*, 324 F.3d 141 (3rd Cir. 2003), the court did not require a price/cost test to establish liability.

When the effective price based on contested units (defined above for either good *A* or *B*, or a combination of *A* and *B*) is below the incremental cost of the competing firm including an allocation of avoidable fixed costs, the dominant firm is selling the contested units at an effective price that cannot be matched by the competitor, leading to the withdrawal of the competitor from the market. If the rival is equally efficient as the dominant firm, this test collapses to test (1), and antitrust liability is immediately established. If the rival firm is inefficient and its costs are higher than the dominant firm's when evaluated at the production levels of both firms at the market equilibrium under the requirement contract, the court should first look at whether the rival has the same cost *curve/function* as the dominant firm and whether its scale has been curtailed because of the anticompetitive acts of the dominant firm. If both of these are true, we fall back to test (1). If the rival's cost curve is higher than the dominant firm's in the but-for world, the court should analyze whether the benefits to consumers in the but-for world are eliminated or diminished by the requirement/loyalty practice.

As discussed earlier in the section on the AMC standard, if the price outside the requirement (for example, the a la carte price in the multiproduct case) is above the but-for price, this is a clear indication of a reduction in consumer surplus as an effect of the introduction of the requirement contract.[42] Additionally, when re-entry is difficult, any temporary benefit to consumers arising from low prices that leads to the rival's exit will disappear after the rival's exit when the dominant firm will increase its prices.

III. CONCLUDING REMARKS

I have discussed various standards that have been proposed to establish antitrust liability in cases of requirement/loyalty contracts. I have criticized the AMC test because, among other reasons, it failed to establish a correspondence between consumer surplus reductions as a result of the requirement/loyalty practice and the price/cost test it proposed. Additionally, I showed that the AMC test will tend to show no liability where liability is present. The European Commission

[42] *See* sources cited *supra* note 2.

price/cost test is significantly better than the AMC test because it correctly applies the loyalty discounts only to the units contested by rivals. However, even this test falls short for a number of reasons, including not taking into account product differentiation and the fact that even an inefficient competitor can constrain a dominant firm's pricing and thereby increase consumer surplus. I proposed a structured rule of reason test that does not include a safe harbor price/cost test but instead relies on consumer surplus comparisons. In the case of homogeneous goods, I show how price/cost tests may be used as part of the structured rule of reason test to establish liability.