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ARTICLES

TOWARD A UNIFIED THEORY OF EXCLUSIONARY VERTICAL RESTRAINTS

DANIEL A. CRANE*

GRACIELA MIRALLES†

ABSTRACT

The law of exclusionary vertical restraints—contractual or other business relationships between vertically related firms—is deeply confused and inconsistent in both the United States and the European Union. A variety of vertical practices, including predatory pricing, tying, exclusive dealing, price discrimination, and bundling, are treated very differently based on formalistic distinctions that bear no relationship to the practices' exclusionary potential. We propose a comprehensive, unified test for all exclusionary vertical restraints that centers on two factors: foreclosure and substantiality. We then assign economic content to these factors. A restraint forecloses if it denies equally efficient rivals a reasonable opportunity to make a sale or purchase (depending on whether the restraint affects access to customers or inputs). Market foreclosure is substantial if it

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denies rivals a reasonable opportunity to reach minimum viable scale. When substantial foreclosure is shown, the restraint should generally be declared illegal unless it is justified by efficiencies that exceed the restraint's anticompetitive effects.

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I. INTRODUCTION

The law of exclusionary vertical restraints—contractual arrangements or informal business relationships between vertically related firms that impair the competitiveness of either the upstream or downstream market—is largely incoherent in both the United States and the European Union.¹ The sources of this incoherence are potentially twofold.

1. In discussing the law of the European Union, we focus on the law developed under Articles 101 and 102 of the Treaty on the Functioning of the European Union (“TFEU”), as interpreted by the European Commission, the European Court of First Instance, and the European Court of Justice, not on the national laws of any member states of the European Union. See Consolidated Version of the Treaty on the Functioning of the European Union arts. 101–102, May 9, 2008, 2008 O.J. (C 115) 47, 88–89 [hereinafter TFEU], available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2008:115:0047:0199:EN:PDF>.

First, in both jurisdictions, antitrust law is primarily made by generalist courts giving effect to discrete statutory or treaty texts.² Hence, some of the incoherence in the case law may be the product of unavoidable statutory constructions that require courts to treat economically similar commercial practices differently despite the economic fungibility of the practices. It is doubtful, however, that statutory or treaty design accounts for much of the incoherence. The foundational legal instruments of both jurisdictions are sufficiently open textured to accommodate judicial development of a unified and coherent account of vertical restraints.

Rather than reflecting an avoidable rendering of statutory or treaty commands, the incoherence largely arises from a failure to grasp the commonalities among the various forms of vertical restraints. In particular, much of the confusion arises from the courts' failure systematically to consider three sets of related factors: (1) whether the restraint involves a nominal price reduction (as in the case of predatory pricing, price discrimination, and bundled discounting) or nonprice coercion (as in the case of exclusive dealing and tying); (2) whether the restraint involves a single product (as in a single-product exclusive dealing contract) or multiple products (as in the case of tying arrangements or bundled discounts); and (3) whether the restraint harms competition at the level of the firm giving the discount (as in the case of "primary line" price discrimination) or at the level of the firm receiving the discount (as in the case of "secondary line" price discrimination).³

In this Article, we argue that all allegedly exclusionary vertical restraints should be analyzed under a single organizing principle: substantial foreclosure. In every exclusionary vertical restraints case, the ultimate question should be whether the loyalty-inducing provision poses an unacceptable risk of harming consumer welfare by denying to rivals a reasonable opportunity to participate efficiently in the market and whether it does so without a sufficient efficiency justification. In order to make this assessment, three analytical questions must be answered.

First, does the vertical restraint "foreclose" any portion of the relevant market? The answer depends on whether rivals have a reasonable

2. See generally DANIEL A. CRANE, *THE INSTITUTIONAL STRUCTURE OF ANTITRUST ENFORCEMENT* (2011) (introducing antitrust institutions from various jurisdictions including the United States and the European Union).

3. See Andrew I. Gavil, *Secondary Line Price Discrimination and the Fate of Morton Salt: To Save It, Let It Go*, 48 EMORY L.J. 1057, 1116–20 (1999) (discussing the problems with judicial interpretations of secondary-line price discrimination).

opportunity to compete for the contracted business. A nonprice contractual term that requires one party to deal exclusively with the other party forecloses some percentage of the market to rivals if the rivals are unable to offer their own exclusive dealing contracts. A contractual provision that offers a discount to incentivize the customer to do business forecloses rivals only if the rivals could not profitably offer their own competitive discounts.

If the restraint involves contractual terms that span multiple products (as in the case of tying and bundled discounting), it is necessary to identify one or more markets in which competition is potentially harmed. Once that market is identified, the question becomes how much of that market the contractual arrangement in question places off limits to rivals. If the contractual arrangement is a price discount, then none of the relevant markets should be deemed off limits to rivals unless the rivals would have to price below cost in order to obtain that business. But once some portion of business in that market is deemed foreclosed—either because a party has contractually committed or because the discounts impacting that segment of business could not be overcome without pricing below cost—we have the foreclosure percentage. At that point a court or agency should ask the second question: Is the foreclosure substantial?

In performing a foreclosure analysis, it should not matter whether the foreclosure occurs at the level of the upstream firm (usually a manufacturer) or the downstream firm (usually a wholesaler or retailer). For example, in a primary-line price discrimination case, the question should be whether the manufacturer priced below cost, and, if so, whether the below-cost pricing was across a sufficient share of the market to substantially foreclose competition. Similarly, in a secondary-line case, the question should be whether the retailer that received the discriminatory price obtained such a competitive advantage that rivals could not profitably compete for some segment of retail sales.

Second, is the foreclosure substantial? Once a court or agency determines that some portion of the market is foreclosed, it must decide whether the foreclosure is substantial. To date, judicial precedents that have analyzed substantiality have usually fallen back on generic market share percentages that bear little or no relationship to the significant economic questions. In economic terms, a foreclosure percentage should be deemed substantial when it denies rivals a sufficient probability of obtaining a sufficient amount of business to reach the percentage of the market necessary to minimize average costs (“minimum viable scale”). This analysis requires identifying not only the minimum viable scale, but also

the probability that the rival will win that particular increment of business in the unforeclosed segment of the market. In performing this analysis, a court or agency needs to consider both the role of an incumbency advantage and the countervailing claim—usually made by ostensibly frustrated new entrants—that the new entrant’s technology, product, or service is superior to the status quo.

Third, is the substantial foreclosure justified by efficiency defenses? Even if a vertical restraint results in substantial foreclosure, it should not be declared unlawful if efficiencies resulting from the restraint and passed on to consumers exceed its anticompetitive effects.⁴

We organize this Article as follows. In Part II, we provide the foundational assumptions for a unified theory of exclusionary vertical restraints. In particular, we explore some differences between exclusion-based theories of vertical restraints—those with which this Article is concerned—and collusion- or exploitation-based theories—which we do not address here. We also discuss the importance of unifying the approach to vertical restraints in the United States and the European Union given the increasingly transatlantic or global nature of many commercial practices that may be challenged as exclusionary vertical restraints. In Part III, we survey the leading U.S. and E.U. precedents and diagnose the sources of the doctrinal and analytical incoherence. In Part IV, we advance our central normative claim—that all exclusionary vertical restraints should be analyzed *prima facie* within a broad and circumstantially adaptive two-part framework centering on foreclosure and substantiality.⁵ We also assign economic content to those elements. We do not analyze efficiencies defenses in vertical restraints cases, but simply observe that such defenses should not come into play unless a plaintiff meets the *prima facie* substantial foreclosure test. Finally, in Part V, we provide illustrations of our unified theory in action in the context of three significant vertical restraints cases. In Part VI we conclude.

4. Since this Article is not primarily concerned with efficiencies defenses, we do not address the proper treatment of efficiencies that are captured by producers and not passed onto consumers. *See, e.g.*, Oliver E. Williamson, *Economies as an Antitrust Defense: The Welfare Tradeoffs*, 58 AM. ECON. REV. 18, 21–33 (1968).

5. We do not address efficiencies defenses that should arise once the plaintiff makes a *prima facie* showing of substantial foreclosure.

II. FOUNDATIONAL ASSUMPTIONS

A. DISTINGUISHING EXCLUSION, COLLUSION, AND EXPLOITATION

Antitrust law may prohibit vertical restraints for three quite different kinds of reasons. First, vertical restraints have the capacity to exclude rivals from effectively competing in some market, usually an upstream (or supply) market or downstream (or resale) market. Second, vertical restraints may facilitate collusion between firms at either the upstream or downstream level.⁶ For example, colluding retailers may force upstream suppliers to impose resale price maintenance in vertical contracts in order to prevent cheating on the retail-level cartel agreement.⁷ Finally, a dominant upstream firm may use vertical contractual practices such as tying, bundling, or exclusive dealing to engage in price discrimination and hence to extract consumer surplus from purchasers.⁸

This Article concerns only the first of these concerns—exclusionary vertical restraints. Collusive theories of vertical restraints raise very different concerns. Collusive vertical restraints are usually manifested as intrabrand restrictions, such as resale price maintenance or territorial restrictions.⁹ Conversely, exclusionary vertical restraints usually operate as interbrand restrictions, such as prohibitions on carrying a competing brand or a tying arrangement that locks out competitive sellers. Furthermore, collusive restraints often occur when the colluding firms have little market power individually and hence must band together to thwart competition.¹⁰ By contrast, exclusionary vertical restraints are likely to be practiced only by dominant firms with large market shares. Similarly, collusive restraints involve no market foreclosure¹¹—indeed, collusion makes entry by new

6. See *Leegin Creative Leather Prods., Inc. v. PSKS, Inc.*, 551 U.S. 877, 892–93 (2007); RICHARD A. POSNER, *ANTITRUST LAW* 171–73 (2d ed. 2001); Howard P. Marvel & Stephen McCafferty, *The Welfare Effects of Resale Price Maintenance*, 28 J.L. & ECON. 363, 373–74 (1985).

7. *Leegin*, 551 U.S. at 893.

8. See Einer Elhauge, *Tying, Bundled Discounts, and the Death of the Single Monopoly Profit Theory*, 123 HARV. L. REV. 397, 405–07 (2009).

9. *Leegin*, 551 U.S. at 903–04.

10. Market power is not a prerequisite for illegal price fixing. *United States v. Socony-Vacuum Oil Co.*, 310 U.S. 150, 252 (1940) (“Conspiracies under the Sherman Act . . . are not dependent on the ‘doing of any act other than the act of conspiring’ as a condition of liability.”). The colluding firms often have no individual market power at all.

11. It is, of course, possible that a group of dominant firms will collude to exclude rivals from the market. Such cases, however, are best analyzed as instances of joint exclusion in which the market power and foreclosure effects of the coconspirators are aggregated, rather than as instances of noncoercive collusion. We consider multiparty cumulative foreclosure effects in Part V.C.

firms easier since it increases market prices and reduces output.¹² By contrast, as we argue in Part IV, foreclosure is a necessary ingredient of vertical exclusion.

Exploitation is also a very different concern from exclusion. While exploitation also requires market power, it does not require that the market power have been obtained through an exclusionary device. For example, a firm with a valid exclusionary patent might engage in a form of “exploitative” price discrimination.¹³ Additionally, exploitation operates only vertically—it involves the extraction of surplus from a person or firm at a different level of production or distribution from the exploiting firm. By contrast, vertical exclusion devices employ vertical relations instrumentally to exclude competitors, and hence operate horizontally. For example, a firm that engages in predatory pricing lowers its prices to consumers in order to exclude a competitor. Later, it increases its prices to recoup the costs of predation and to earn monopoly profits.¹⁴ This latter act of excessive pricing might be said to be “exploitative,” but it is differently exploitative from emerging theories of exploitation, which rely on the manipulation of price structures to extract consumer welfare regardless of any prior exclusion.¹⁵ Prior exclusion is not a necessary ingredient of an exploitation theory, and exploitation is not a necessary consequence of an exclusion strategy. Thus, exploitation is not anticompetitive in the conventional sense in that it does not turn on avoiding competition.

There is also an important juridical difference between exclusion and exploitation. It is doubtful whether U.S. antitrust law recognizes a pure exploitation theory.¹⁶ By contrast, E.U. law does—at least in theory.¹⁷ Antitrust laws in many emerging antitrust jurisdictions also recognize

12. This is not to say that cartels automatically attract entry. If potential new entrants understand that current prices are the product of collusion and that new entry will disrupt the patterns of collusion, then they may not consider entry worthwhile. See Ariel Ezrachi & David Gilo, *Are Excessive Prices Really Self-Correcting?*, 5 J. COMPETITION L. & ECON. 249, 255 (2009).

13. See, e.g., William F. Baxter, *Legal Restrictions on Exploitation of the Patent Monopoly: An Economic Analysis*, 76 YALE L.J. 267, 280 (1966).

14. Daniel A. Crane, *The Paradox of Predatory Pricing*, 91 CORNELL L. REV. 1, 2–3 (2005).

15. See, e.g., Elhauge, *supra* note 8, at 405–07.

16. See *Pac. Bell Tel. Co. v. linkLine Commc'ns, Inc.*, 129 S. Ct. 1109, 1118 (2009) (holding that simply charging monopoly prices does not violate Section 2 of the Sherman Act).

17. In theory, Article 102 of the TFEU prohibits both exclusionary and exploitative abuses of dominance, although successful cases challenging abuses of dominance on pure exploitation theories are rare. John Vickers, *Abuse of Market Power*, 115 ECON. J. F244, F246 (2005) (“All but a few [European Commission] cases on abuse of dominance have concerned exclusionary conduct by dominant firms—i.e. conduct preventing or restricting competitors—rather than behaviour directly exploitative of consumers.”).

stand-alone exploitation offenses, such as excessive pricing and nonexclusionary price discrimination.¹⁸

Although the conceptual foundations of these three separate theories of vertical restraint are quite different, antitrust law often fails to distinguish clearly which theory of wrong it is addressing with a particular analytic matrix. For example, tying arrangements may be anticompetitive because they exclude competitors,¹⁹ facilitate cartel arrangements,²⁰ or extract surplus from consumers.²¹ Antitrust law, however, often approaches tying as a unified legal wrong amenable to a single test. For instance, under U.S. case law, a seller's share of the tying market must generally be at least 30 to 40 percent in order for the tying to be illegal.²² But a single market share screen makes little sense in light of the different possible theories of wrong. If the tie-in is wrongful because it excludes competitors in the tied market, then a fairly high degree of market power in the tying market is likely necessary. If it is wrongful because it represents a cartel-stabilization effort, then a much lower market share might be sufficient.

Although this Article does not propose an analytic framework for collusive or exploitative theories of harm, one implication of the framework we propose for exclusionary theories is that the plaintiff in a vertical restraints case should be required to articulate with precision which theory it is advancing. The relevant analytical questions in exclusion, collusion, and exploitation cases are quite different. While adopting a unified theory of *exclusionary vertical restraints* is reasonable, adopting a unified theory of *vertical restraints* is nonsensical.

18. See generally ELEANOR M. FOX & DANIEL A. CRANE, GLOBAL ISSUES IN ANTITRUST AND COMPETITION LAW 95–122 (2010) (providing an overview of exploitative offenses such as excessive and discriminatory pricing).

19. *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 482–85 (1992) (examining elements of a tying claim brought under Section 2 of the Sherman Act, which concerns monopolization).

20. See Christopher R. Leslie, *Tying Conspiracies*, 48 WM. & MARY L. REV. 2247, 2256–60 (2007).

21. Elhauge, *supra* note 8, at 407–13.

22. See *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 26 & n.43 (1984) (holding that Jefferson Parish did not occupy a dominant market position with only 30 percent of the market share); *Times-Picayune Publ'g Co. v. United States*, 345 U.S. 594, 611–13 (1953) (holding that Times-Picayune did not occupy a dominant position in the newspaper advertising market with only 40 percent of the market share).

B. THE NEED AND OPPORTUNITY FOR A UNIFIED TRANSATLANTIC APPROACH

Divergences in U.S. and E.U. treatment of exclusionary vertical restraints are unexceptional since U.S. and E.U. competition laws differ in many important respects.²³ Nonetheless, there are at least three compelling reasons for articulating a theory capable of unifying and rationalizing the law of exclusionary vertical restraints in both jurisdictions.

First, as we shall note in the following section, the existing bodies of U.S. and E.U. law on exclusionary vertical restraints do not just conflict with each other, but are each internally incoherent and in need of systematization within a coherent economic framework. There is no good reason to systematize the two bodies differently. While the foundational legal instruments of the two systems (the U.S. statutes and E.U. treaty provisions) imply different approaches on certain vertical issues—such as exploitative uses of market power or intrabrand restraints that segment the common European market at national borders²⁴—they do not require different approaches to exclusionary vertical restraints.

To the extent that the two jurisdictions differ on matters of emphasis—for example, the relative priority given to short-run or long-run effects or default assumptions in the absence of clear proof—such differences can be expressed within the unified framework we propose. For example, some commentators believe that E.U. law tends to give priority to short-run consumer pricing effects over long-run interests in innovation.²⁵

23. See Eleanor M. Fox, GE/Honeywell: *The U.S. Merger That Europe Stopped—A Story of the Politics of Convergence*, in ANTITRUST STORIES 331, 333–36 (Eleanor M. Fox & Daniel A. Crane eds., 2007) (comparing American and European merger law). See generally Heike Schweitzer, *Parallels and Differences in the Attitudes Towards Single-Firm Conduct: What Are the Reasons? The History, Interpretation and Underlying Principles of Sec. 2 Sherman Act and Art. 82 EC* (EUI Working Papers, LAW 2007/32, 2007) (explaining differences between American and European views of antitrust laws and single-firm conduct).

24. See Nicola Giocoli, *Competition Versus Property Rights: American Antitrust Law, The Freiburg School, and the Early Years of European Competition Policy*, 5 J. COMPETITION L. & ECON. 747, 779–80 (2009) (explaining European hostility to intrabrand vertical restraints as grounded in common market objectives); Ilene Knable Gotts et al., *Nature vs. Nurture and Reaching the Age of Reason: The U.S./E.U. Treatment of Transatlantic Mergers*, 61 N.Y.U. ANN. SURV. AM. L. 453, 471–72 (2005) (describing European concern about vertical restraints with regard to such agreements' impact on cross-border markets).

25. See, e.g., Alan Devlin & Michael Jacobs, *Microsoft's Five Fatal Flaws*, 2009 COLUM. BUS. L. REV. 67, 71 (describing "Europe's jurisprudential thinking" as "an unequivocal embrace of short-run consumer wealth at the possible expense of long-run innovation"); J. Bruce McDonald, Deputy Assistant Attorney Gen., U.S. Dep't of Justice, Antitrust Div., Presentation to the Modernisation of Article 82 Conference: Section 2 and Article 82: Cowboys and Gentlemen 12 (June 16–17, 2005),

The relative priority of those two competing interests can be expressed during the balancing of anticompetitive effects against offsetting efficiencies. Differences in the relative weights accorded to each interest between the different jurisdictions, however, do not negate the substantial foreclosure framework for ascertaining whether a vertical restraint even excludes any rival.

Second, an increasing number of exclusionary vertical restraints cases involve commercial practices by dominant suppliers that span both American and European markets. Recent parallel cases in the United States and European Union against Intel²⁶ and Microsoft²⁷ have exposed significant analytical differences between the U.S. and E.U. approaches with respect to the same commercial practices involving the same competitors and business customers. For example, the European Commission (“Commission”) insisted that Microsoft “unbundle[]” its Personal Computer (“PC”) operating system (Windows) from its media player.²⁸ The E.U. decision effectively required Microsoft to redesign its operating system for the European market since Microsoft was permitted to carry the “bundled” version of Windows in the rest of the world. In 2005, Microsoft complied with the European Union’s decision and began to make available “Windows XP Home Edition N,” with the “N” conspicuously and clumsily—as if to make the point—standing for “not with Media Player.”²⁹ Although the European Court of First Instance eventually affirmed the Commission’s decision,³⁰ “Edition N” proved highly unpopular with original equipment manufacturers serving the European market, and very few installed it on their computers. Microsoft thus redesigned its operating

available at <http://www.justice.gov/atr/public/speeches/210873.pdf> (“Relative to EU officials U.S. enforcers exhibit greater attention to the long run and greater faith in the market’s ability to police long run problems.”).

26. See *infra* text accompanying notes 156–97.

27. An examination of the various cases against Microsoft appears in WILLIAM H. PAGE & JOHN E. LOPATKA, *THE MICROSOFT CASE: ANTITRUST, HIGH TECHNOLOGY, AND CONSUMER WELFARE* 33–83 (2007). See also *infra* text accompanying notes 107–11.

28. Commission Decision 2007/53/EC of 24 March 2004 Relating to a Proceeding Pursuant to Article 82 of the EC Treaty and Article 54 of the EEA Agreement Against Microsoft Corporation (COMP/C-3/37.792—Microsoft), 2007 O.J. (L 32) 23, 27.

29. *Microsoft Strikes Deal on Windows*, N.Y. TIMES, Mar. 29, 2005, at C8 (reporting on the agreement on the name of the new product, clearing the way for its distribution); Press Release, Microsoft News Ctr., Microsoft to Release Windows XP Home Edition N and Windows XP Professional N in Europe (June 8, 2005), <http://www.microsoft.com/presspass/press/2005/jun05/06-08XPNEuropePR.mspx> (“[T]he latest versions of the XP operating systems without Windows Media Player follow further clarifications from the European Commission.”).

30. Case T-201/04, *Microsoft Corp. v. Comm’n*, 2007 E.C.R. II-3601, ¶¶ 866–69.

system for the European market, only to find no takers.³¹ A unified approach to exclusionary vertical restraints in the United States and European Union might not have avoided this debacle since a common analytical framework does not guarantee identical application in both jurisdictions. It would, however, reduce the likelihood of similar occurrences in the future.

Third, the time is ripe for a comprehensive examination of vertical restraints policy. In the United States, the law governing a wide variety of exclusionary vertical practices—including bundled discounting, exclusive dealing, tying, and secondary-line price discrimination—is currently under debate in the courts and the academy. Judge Richard Posner has opined that “[a]ntitrust policy toward vertical restraints is the biggest *substantive* issue facing antitrust.”³² In Europe, the Commission announced its intention to move from a formalistic or “form-based” approach to abuse of dominance issues to an “effects-based” approach.³³ This shift in approach may facilitate moving vertical restraints policy into a unified economic framework. While both jurisdictions struggle with the same issues and increasingly rely on economic analysis—which has no juridical borders—the possibility of convergence is enhanced.

III. U.S. AND E.U. PRECEDENTS

A. U.S. PRECEDENTS

In the United States, courts typically analyze exclusionary vertical restraints under one of five statutory provisions: Section 1 of the Sherman Act, which prohibits contract, combinations, and conspiracies in restraint of trade;³⁴ Section 2 of the Sherman Act, which prohibits monopolizing;³⁵

31. See Steve Lohr & James Kanter, *Microsoft Facing Fines in Europe*, N.Y. TIMES, Dec. 23, 2005, at C1 (reporting that according to Microsoft no original equipment manufacturers have asked for licenses for the product and retail sales “have been few”); Paul Meller, *Microsoft in European Court Says 2004 Ruling Is a Failure*, N.Y. TIMES, Apr. 26, 2006, at C6 (reporting an admission from the top Commission lawyer stating, “I am afraid we cannot say our remedy has had any real impact, as far as we can see”).

32. Richard A. Posner, *Vertical Restraints and Antitrust Policy*, 72 U. CHI. L. REV. 229, 229 (2005).

33. See Neelie Kroes, Member, European Comm’n in Charge of Competition Policy, Speech at the Fordham Corporate Law Institute: Preliminary Thoughts on Policy Review of Article 82, at 2 (Sept. 23, 2005), available at <http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/05/537> (advocating an effects-based approach to Article 82 enforcement).

34. Sherman Act § 1, 15 U.S.C. § 1 (2006).

35. *Id.* § 2.

Section 3 of the Clayton Act, which prohibits anticompetitive tying and exclusive dealing;³⁶ the Robinson-Patman Act, which prohibits anticompetitive price discrimination;³⁷ and Section 5 of the Federal Trade Commission Act, which empowers the Federal Trade Commission to prohibit unfair methods of competition.³⁸ Rather than following statutory lines, the courts have largely divided exclusionary vertical restraints into classes of commercial conduct that overlap statutory categories. For example, courts consider primary-line price discrimination under the Robinson-Patman Act to be functionally equivalent to predatory pricing under the Sherman Act, but consider secondary-line price discrimination under the Robinson-Patman Act to be a separate offense from primary-line price discrimination.³⁹ Tying offenses are cognizable under Section 3 of the Clayton Act or Sections 1 or 2 of the Sherman Act, without much distinction between the statutory sources.⁴⁰

Although the courts have largely treated the causes of action associated with potentially anticompetitive vertical restraints to apply regardless of the statutory provision invoked by the plaintiff, they have often abandoned this functional approach when addressing different forms of exclusionary vertical restraints. Instead, they have created either formalist or functionalist doctrines depending on the type of restraint at issue. In many cases, the courts have treated similar forms of vertical restraints quite differently based on insubstantial classificatory distinctions. In particular, the courts have treated as unjustifiably significant the distinctions between single-product and multiproduct practices, primary- and secondary-line effects, and price or nonprice terms of sale or exchange.

Significant doctrinal differences between the treatment of tying

36. Clayton Act § 3, 15 U.S.C. § 14.

37. Robinson-Patman Act, 15 U.S.C. §§ 13a, 13b, 21a.

38. Federal Trade Commission Act § 5, 15 U.S.C. § 45.

39. See 14 HERBERT HOVENKAMP, ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION ¶ 2300, at 3 (1999). Primary- and secondary-line price discrimination under the Robinson-Patman Act overlap on many statutory elements—such as the “roughly contemporaneous” “sales” of “commodities,” and “of like grade and quality” requirements, *id.* (footnotes omitted), but those statutory elements have little to do with the economic substance of the antitrust analysis.

40. *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 481 (1992) (acknowledging that “[m]onopoly power under § 2 requires, of course, something greater than market power under § 1,” but otherwise reaching the same conclusions about tying conduct under both Sections 1 and 2 of the Sherman Act); *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 24 n.39 (1984) (“[W]ith respect to the definition of tying[,], the standards used by the two statutes[—the Clayton Act and section 1 of the Sherman Act—]are the same.”).

(which necessarily involves two products) and exclusive dealing (which need only involve one product) exemplify the overemphasis on the differences between single- and multiproduct practices. Often, the same conduct could be described as either tying or exclusive dealing.⁴¹ For example, in the *Standard Stations* case, the Justice Department challenged Standard Oil's requirement that independent gasoline retailers sell only Standard's oil as an exclusive dealing requirement.⁴² As Herbert Hovenkamp has noted, however, the arrangement "could also have been described as a tying arrangement in which the franchise itself, or the right to bear the Standard brand, or the right to use tanks and pumps that Standard provided its dealers was conditioned on their purchase of gasoline from Standard."⁴³ Similarly, in *Jefferson Parish Hospital District No. 2 v. Hyde*, five Justices saw a hospital's agreement to use a single anesthesiology service as a tying arrangement (albeit a legal one),⁴⁴ whereas four concurring Justices characterized it as a species of exclusive dealing arrangement.⁴⁵

Whether an arrangement is characterized as tying or exclusive dealing has important implications under U.S. law, since courts have traditionally treated tying arrangements with considerably greater hostility—more formally and categorically—than exclusive dealing arrangements.⁴⁶ But, to the extent that the concern in tying cases is over the exclusion of rivals in the tied market and not exploitation of consumers through price discrimination,⁴⁷ the exclusionary effects of tying and exclusive dealing depend equally on the foreclosure of rivals. Indeed, if anything, tying arrangements may generally be less threatening to rivals in the tied market than exclusive dealing arrangements, since tying arrangements often apply to only particular uses of the product in the tied market (for example, in conjunction with a particular machine), whereas exclusive dealing contracts forbid the buyer from purchasing any of its requirements from the seller's

41. 11 HERBERT HOVENKAMP, *ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION* ¶ 1800b, at 7 (2d ed. 2005) (distinguishing causes of action for tying and exclusive dealing and observing that "[m]any of the practices that have been characterized as exclusive dealing could also be described as tying, although perhaps not all the of the [sic] technical legal requirements for a tying arrangement could be met").

42. *Standard Oil Co. of Cal. v. United States (Standard Stations)*, 337 U.S. 293, 294 (1949).

43. 11 HOVENKAMP, *supra* note 41, ¶ 1800b, at 7.

44. *Jefferson Parish*, 466 U.S. at 22–24, 31–32.

45. *Id.* at 44–46 (O'Connor, J., concurring). See also 11 HOVENKAMP, *supra* note 41, ¶ 1800b, at 7 (citing *Jefferson Parish*, 466 U.S. 2).

46. See 11 HOVENKAMP, *supra* note 41, ¶ 1800b, at 10.

47. See Elhauge, *supra* note 8, at 399–400.

rivals.⁴⁸ This is not to say that tying arrangements should be treated with greater leniency than exclusive dealing arrangements—only that in either case, the first step is to evaluate how much of the relevant market is foreclosed to competitors.

Some courts have drawn a similar dividing line between single-product predatory pricing and multiproduct bundled discounting.⁴⁹ In *LePage's Inc. v. 3M*, for example, an en banc panel of the U.S. Court of Appeals for the Third Circuit held that bundled discounting should not be governed by single-product predatory pricing rules but instead should be analogized to tying arrangements “whose foreclosure effects are similar.”⁵⁰ That characterization was problematic. While recognizing the analytical similarity between price and nonprice practices (bundled discounting and tying), the Third Circuit assumed that a bundled discount forecloses rivals in a significantly different manner from single-product predation. As we shall show in the following section, in both single-product and multiproduct discounting contexts, a competitor is foreclosed only if it cannot reasonably match its rivals’ prices. While the precise questions necessary to ascertain whether this characterization is true may vary depending on whether single- or multiproduct discounting is at issue, the fundamental foreclosure issue is the same.

A second manifestation of doctrinal and analytical incoherence concerns the radically different treatment accorded to primary-line and secondary-line price discrimination. As previously noted, under U.S. law primary-line price discrimination (which concerns injury to competition at the level of the firm giving the discount—usually a manufacturer) is addressed under the same standards as predatory pricing under the Sherman Act. To satisfy its *prima facie* case, the plaintiff must show that the defendant priced below the “appropriate measure of its rival’s cost,”⁵¹ and that its conduct created a “dangerous probability” that the defendant would later be able to recoup its costs of predation through supracompetitive

48. 11 HOVENKAMP, *supra* note 41, ¶ 1800b, at 10–11.

49. A bundled discount involves the seller’s offer to sell two or more products at a discounted package price, even though the seller is still willing to make the two products available for individual purchase. See Daniel A. Crane, *Mixed Bundling, Profit Sacrifice, and Consumer Welfare*, 55 EMORY L.J. 423, 425 (2006).

50. *LePage's Inc. v. 3M*, 324 F.3d 141, 155 (3d Cir. 2003) (en banc) (quoting PHILLIP E. AREEDA & HERBERT HOVENKAMP, *ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION* ¶ 749, at 83 (Supp. 2002)) (“Rather than analogizing [bundled discounts] to predatory pricing, [bundled discounts] are best compared with tying, whose foreclosure effects are similar.”).

51. *Brooke Grp. Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 222 (1993).

pricing.⁵² Under U.S. case law, however, secondary-line price discrimination (which concerns injury to competition at the level of the firm receiving the discount—usually a dealer) is an odd and aberrational antitrust offense. There is no requirement that the firm giving the discount have market power,⁵³ nor any requirement of general injury to the competitive process—an injury to a single competitor may be sufficient.⁵⁴ There is not even a requirement that the discriminatory price have threatened the disadvantaged firm's existence in the market.⁵⁵

In its most recent secondary-line case, the Supreme Court signaled a potential willingness to change course and harmonize secondary-line price discrimination with the broader currents of antitrust law that are focused on the protection of the competitive process rather than on individual competitors.⁵⁶ To do this, the Court will need to revise significantly secondary-line price discrimination doctrine to introduce analytical tools of the kind that are employed in primary-line cases. In particular, it will need to articulate the questions that judges and juries should ask in determining whether a discriminatory discount to one dealer impaired that dealer's rivals' ability to compete efficiently in the market. As set forth in the following section, that inquiry should depend upon the same kind of showing currently required in predatory pricing and primary-line cases—that the rival dealer would have had to sell its goods below cost in order to compete and, hence, was foreclosed from some segment of the relevant market.

This latter observation raises a third branch of inconsistency in U.S. treatment of exclusionary vertical restraints. As already noted, the plaintiff in a predatory pricing case must show that the defendant priced below cost. Any below-cost sales are considered off limits to an equally efficient rival and, hence, anticompetitive. At that point, the analysis in exclusive dealing and predatory pricing cases seems to converge on the foreclosure effect of the vertical restraint. In exclusive dealing cases, however, foreclosure is

52. *Id.* at 224.

53. 14 HOVENKAMP, *supra* note 39, ¶ 2301b, at 7–8. *See also* *Texaco, Inc. v. Hasbrouck*, 496 U.S. 543, 548 (1990) (describing the retail gasoline market as “highly competitive”).

54. *See* *Chroma Lighting v. GTE Prods. Corp.*, 111 F.3d 653, 654–55 (9th Cir. 1997); *Rebel Oil Co. v. Atl. Richfield Co.*, 51 F.3d 1421, 1445 (9th Cir. 1995).

55. *See* *FTC v. Morton Salt Co.*, 334 U.S. 37, 48–51 (1948); 14 HOVENKAMP, *supra* note 39, ¶ 2331c, at 80–82, ¶ 2333c, at 97–102.

56. *Volvo Trucks N. Am., Inc. v. Reeder-Simco GMC, Inc.*, 546 U.S. 164, 181 (2006) (“[W]e would resist interpretation [of the Robinson-Patman Act] geared more to the protection of existing competitors than to the stimulation of competition.”).

only one ingredient. In order for the foreclosure to be illegal, it must be "substantial."⁵⁷ Trivial amounts of foreclosure through exclusive dealing do not exclude rivals. The same is true of predatory pricing. Trivial amounts of predatory pricing—say, below-cost pricing on just one or two contracts in a market with hundreds of customers—cannot exclude rivals. Predation can only exclude rivals if it forecloses them from so much of the market that they cannot efficiently remain in the market. Under U.S. case law, however, "substantiality" is not identified as an element of a predatory pricing claim. Some courts have rejected predatory pricing claims in which the plaintiff offered only selective evidence of predation or failed to show below-cost pricing across the defendant's entire product line,⁵⁸ but the courts have not articulated a systematic principle of substantiality in predatory pricing cases and, at times, have allowed plaintiffs to proceed on evidence of selective predation without a showing of overall market foreclosure.⁵⁹ Although the foreclosure effects of price and nonprice vertical restraints are often analytically identical, extant doctrine treats price and nonprice as completely distinct offenses.

In sum, U.S. case law contains no general theory of exclusionary vertical restraints. It tends to muddle through on a practice-by-practice basis, sometimes drawing weak analogies to, other times weak distinctions from, other forms of vertical restraints. These distinctions are not justified by any general theory of exclusionary conduct or any statutory imperative. Rather, they are the products of uneven evolution of economic understanding and path dependence based on the happenstance of how cases were presented to and decided by courts, often generations ago.

B. E.U. PRECEDENTS

Vertical restraints analysis under E.U. competition law exhibits similar incoherence. As with the United States, it is possible to identify three sources of incoherence. The first concerns the different legal treatment of the same practice depending on which section of the Treaty on the Functioning of the European Union ("TFEU") is applied. The second

57. *Tampa Elec. Co. v. Nashville Coal Co.*, 365 U.S. 320, 328 (1961).

58. *E.g.*, *Vollrath Co. v. Sammi Corp.*, 9 F.3d 1455, 1461 (9th Cir. 1993); *Morgan v. Ponder*, 892 F.2d 1355, 1361–62 (8th Cir. 1989); *Stitt Spark Plug Co. v. Champion Spark Plug Co.*, 840 F.2d 1253, 1256 (5th Cir. 1988); *Directory Sales Mgmt. Corp. v. Ohio Bell Tel. Co.*, 833 F.2d 606, 613–14 (6th Cir. 1987); *Lomar Wholesale Grocery, Inc. v. Dieter's Gourmet Foods, Inc.*, 824 F.2d 582, 597–98 (8th Cir. 1987); *Bayou Bottling, Inc. v. Dr. Pepper Co.*, 725 F.2d 300, 305 (5th Cir. 1984); *Janich Bros. v. Am. Distilling Co.*, 570 F.2d 848, 856–57 (9th Cir. 1977).

59. *See, e.g.*, *C.E. Servs., Inc. v. Control Data Corp.*, 759 F.2d 1241, 1247 (5th Cir. 1985).

relates to the different treatment of practices having similar economic effects based on superficial differences in the challenged conduct. The third involves the still-unclear interpretation of the concept of anticompetitive foreclosure. Clarifying these ambiguities is necessary for establishing a consistent framework of analysis, providing predictable standards for firms, and promoting consumer welfare.

An initial source of analytical incoherence has textual roots, although it is doubtful that the textual differences require the degree of analytical difference reflected in judicial decisions. The texts of the articles in the TFEU dealing with competition policy imply a different approach to the treatment of concerted or joint practices⁶⁰ on the one hand, and unilateral conduct on the other. This difference is reflected in two textual provisions that apply exclusively to concerted practices. First, under Article 101(1), the provision relating to concerted practices, only agreements that “may affect trade between Member States and which have as their object or effect the prevention, restriction or distortion of competition within the internal market” are considered anticompetitive.⁶¹ An assessment of foreclosure is intrinsically required. Second, even if a concerted practice triggers scrutiny under Article 101(1), Article 101(3)⁶² permits justifying any such practice on efficiency grounds.⁶³

Article 102, dealing with unilateral conduct, refers to the illegality of an abuse of dominant position in the relevant market.⁶⁴ The TFEU’s text allows no *ex post* justification of a practice deemed abusive, nor does it require an analysis of anticompetitive effects. Justifications are permitted,

60. By “concerted practice” we refer to the meeting of wills in the form of an agreement as opposed to the unilateral conduct deployed by a single undertaking.

61. TFEU, *supra* note 1, art. 101(1), at 88.

62. Article 101(3) of the TFEU states the following:

The provisions of paragraph 1 may, however, be declared inapplicable in the case of: any agreement or category of agreements between undertakings, any decision or category of decisions by associations of undertakings, any concerted practice or category of concerted practices, which contributes to improving the production or distribution of goods or to promoting technical or economic progress, while allowing consumers a fair share of the resulting benefit, and which does not: (a) impose on the undertakings concerned restrictions which are not indispensable to the attainment of these objectives; (b) afford such undertakings the possibility of eliminating competition in respect of a substantial part of the products in question.

Id. art. 101(3), at 89. This provision is further developed in Communication from the Commission, Notice, Guidelines on the Application of Article 81(3) of the Treaty, 2004 O.J. (C 101) 97 (discussing the application of Article 101(3)).

63. Case T-17/93, *Matra Hachette SA v. Comm’n*, 1994 E.C.R. II-595, ¶ 85 (“[N]o anti-competitive practice can exist which, whatever the extent of its effects on a given market, cannot be exempted [under Article 101(3)].”).

64. See Case 85/76, *Hoffmann-La Roche & Co. AG v. Comm’n*, 1979 E.C.R. 461, ¶ 91.

if at all, in the threshold assessment of whether a practice is abusive at all.⁶⁵

From this difference in the Treaty texts, courts have extrapolated significant consequences. The same or very similar practices could often be analyzed either as an abuse of dominance or as a concerted practice, with dramatically different results.⁶⁶

European jurisprudence under Article 101 has followed a similar analytical distinction to the dichotomous categorization under U.S. law by adjudging some restraints as hardcore violations that are per se illegal and all other restraints under an effects-based rule of reason.⁶⁷ By reflecting Article 101's prohibition on restraints that restrict competition as either "object or effect," European courts have developed separate analytical approaches for "restraints by object" and "restraints by effect." Since its earliest cases, the European Court of Justice ("ECJ"), now the Court of Justice of the European Union ("CJEU"), has analyzed vertical restraints as possible restrictions of competition by effect rather than by object, unless a clear anticompetitive intent was present.⁶⁸ Practically, this approach has meant that most vertical restraints are analyzed for their foreclosure effects when scrutinized under Article 101.

The same is not true under Article 102. Unlike in Article 101 cases, the European authorities have not felt compelled to look at the effects of a given practice once it had been tagged as an anticompetitive practice performed by a dominant firm.⁶⁹ The General Court ("GC"), formerly

65. Case C-53/03, *Syfait v. GlaxoSmithKline A EVE*, 2005 E.C.R. I-4609, ¶ 72.

66. See Frank H. Easterbrook, *When Is It Worthwhile to Use Courts to Search for Exclusionary Conduct?*, 2003 COLUM. BUS. L. REV. 345, 345 ("Aggressive, competitive conduct by any firm, even one with market power, is beneficial to consumers. Courts should prize and encourage it. Aggressive, exclusionary conduct is deleterious to consumers, and courts should condemn it. The big problem lies in this: competitive and exclusionary conduct look alike.").

67. This terminology, however, is not totally accurate. See RICHARD WHISH, *COMPETITION LAW* 131-32 (6th ed. 2009) (discussing the danger of importing those terms from U.S. law).

68. Case 56/65, *Société Technique Minière v. Maschinenbau Ulm*, 1966 E.C.R. 235, 250 ("[I]n order to decide whether an agreement containing a clause 'granting an exclusive right of sale' is to be considered as prohibited by reason of its object or its effect, it is appropriate to take into account in particular the nature and quantity, limited or otherwise, of the products covered by the agreement, the position and importance of the grantor and the concessionnaire on the market for the products concerned, the isolated nature of the disputed agreement or, alternatively, its position in a series of agreements, the severity of the clauses intended to protect the exclusive dealership or, alternatively, the opportunities allowed for other commercial competitors in the same products by way of parallel re-exportation and importation.").

69. See WHISH, *supra* note 67, at 194 (discussing the lack of a clear definition about what constitutes an abuse: "The truth of the matter is that no overarching definition of abuse has yet been found").

known as the Court of First Instance, encapsulated this form-based approach in *Michelin II*:

[F]or the purposes of applying Article [102], establishing the anti-competitive object and the anti-competitive effect are one and the same thing If it is shown that the object pursued by the conduct of an undertaking in a dominant position is to limit competition, that conduct will also be liable to have such an effect.⁷⁰

This interpretation is particularly dangerous in the absence of a possible exemption mirroring the one contained in Article 101(3), since even restrictions of competition by object can theoretically be exempt under that escape valve. If there are no genuine per se rules under Article 101, it is hard to see the justification for such rules under Article 102.⁷¹

The *Stergios Delimitis v. Henninger Bräu AG* decision articulates a broad foreclosure test for exclusionary vertical restraints under Article 101.⁷² The Commission challenged an exclusive dealing contract between a brewery and a reseller exploiting an outlet owned by that brewery. The retailer agreed to carry only the brewer's products (beer and soft drinks), a common form of agreement in the industry. The CJEU considered the cumulative effects of these types of contracts on competition in the E.U. market. Given that competitors' access to the market of beer consumption was the key issue at stake, the court established that the effects of this bundle of agreements depended mainly on the number of tied outlets in a national territory, the duration of the commitments, and the quantities involved in comparison with those sold by nontied outlets.⁷³ The court articulated a two-part test for such agreements: (1) access (whether the agreement foreclosed market participation by rivals), and (2) the significance of the agreement at issue.⁷⁴ There was a clear assumption that without market power, the efficiencies associated with a vertical restraint would outweigh any anticompetitive effect, and that even in a context in which similar agreements might have compromised competitors' ability to compete in the relevant market, the agreement at issue was to be prohibited only if it itself significantly contributed to this foreclosure.

70. Case T-203/01, *Manufacture Française des Pneumatiques Michelin v. Comm'n (Michelin II)*, 2003 E.C.R. II-4071, ¶ 241 (citation omitted).

71. See Denis Waelbroeck, *Michelin II: A Per Se Rule Against Rebates by Dominant Companies?*, 1 J. COMPETITION L. & ECON. 149, 153 (2005).

72. See Case C-234/89, *Stergios Delimitis v. Henninger Bräu AG*, 1991 E.C.R. I-935, 995.

73. *Id.* ¶ 19.

74. *Id.* at I-995.

Delimitis provided a clear path for subsequent regulatory activity of the Commission in similar Article 101 cases. When issuing block exemptions for various categories of restraints of trade unlikely to harm competition, the Commission has hewed to a foreclosure-based approach. Under the De Minimis Notice, agreements by small- and medium-sized undertakings below a given market-share threshold are deemed to lack an appreciable impact on intracommunity trade or competition and therefore do not fall under Article 101(1) of the TFEU, provided that they do not touch on certain core restrictions of competition by object.⁷⁵ The Vertical Block Exemption Regulation (“vBER”) refers to categories of vertical agreements that, despite falling within the scope of Article 101(1), qualify for an exemption under Article 101(3) of the TFEU because they are presumed to satisfy its conditions with a sufficient degree of certainty.⁷⁶ The key element of the presumption that the added efficiencies will outweigh any possible anticompetitive effects is again the lack of foreclosing effects. When neither the supplier nor the buyer has more than a 30 percent market share and the agreement does not include any nonindispensable obligations or hardcore restrictions, the block exemption applies.

Although the effects-based approach under Article 101 works relatively well when the Commission determines Article 101 applies, trouble arises when initially determining which treaty provision to apply. The Guidelines on Vertical Restraints (“GVR”) as reformed in 2010 propose a four-step, effects-based assessment to determine whether an undertaking falls within the vBER.⁷⁷ The GVR specifies, however, that, in principle, dominant undertakings cannot qualify for an exemption.

The GVR’s implicit assumption is that vertical restraints by dominant

75. Commission Notice on Agreements of Minor Importance Which Do Not Appreciably Restrict Competition Under Article 81(1) of the Treaty Establishing the European Community (*De Minimis*), 2001 O.J. (C 368) 13, 13–14.

76. Commission Regulation 330/2010, The Application of Article 101(3) of the Treaty on the Functioning of the European Union to Categories of Vertical Agreements and Concerted Practices, 2010 O.J. (L 102) 1, 1.

77. Commission Notice, Guidelines on Vertical Restraints, 2010 O.J. (C 130) 1, 25. The proposed methodology involves the following steps: (1) an initial definition of the relevant market in order to assess (2) if the agreement falls within the scope of application of the vBER. If the relevant market share is above 30 percent or, for any other reason, the presumption of compliance established in the vBER does not apply to the agreement at issue, the next step (3) will establish if the agreement restricts competition in the sense of Article 101(1) of the TFEU. Should the agreement fall within the scope of application of Article 101(1), it will be determined (4) whether this restriction might be outweighed by its associated efficiencies in the sense of Article 101(3). *Id.*

firms shift into Article 102 territory, which entails a significant analytical disconnect from Article 101 analysis. The classic definition of abuse of dominance under Article 102, established by the CJEU in *Hoffmann-La Roche & Co. AG v. Commission*, does not turn on efficiency or market foreclosure but rather on a formalistic view of what constitutes competition on the merits.⁷⁸ This implies a rather awkward task considering that an anticompetitive practice under Article 102 might be totally legitimate in the absence of a finding of dominance. The European Community courts have begun defining certain categories and subcategories of practices considered abusive if performed by a dominant undertaking.

An example of this categorization is provided by the non-cost-related analysis of a price-based practice such as rebates, also analyzed within Article 101 under the heading of single-branding obligations as a quantity-forcing device. In one of its early cases on abuse of dominance, *Coöperatieve Vereniging 'Suiker Unie' UA v. Commission*, the CJEU established a general distinction leading to the dualist understanding of quantity rebates as cost-justified (and thus procompetitive) versus loyalty-enhancing rebates (and thus anticompetitive).⁷⁹ “[T]he fidelity rebate, unlike quantity rebates exclusively linked with the volume of purchases from the producer concerned, is designed through the grant of a financial advantage to prevent customers from obtaining their supplies from competing producers.”⁸⁰ This formalistic categorization has prevailed from initial cases characterized by the super-dominant position of the incumbents—upon which the inference of market foreclosure was built—up to more recent cases involving more controversial findings of dominance.⁸¹ In 2003, the GC categorically stated that “it may be inferred generally from the case-law that any loyalty-inducing rebate system applied

78. Case 85/76, *Hoffmann-La Roche & Co. AG v. Comm'n*, 1979 E.C.R. 461, ¶ 91 (“The concept of abuse is an objective concept relating to the behaviour of an undertaking in a dominant position which is such as to influence the structure of a market where, as a result of the very presence of the undertaking in question, the degree of competition is weakened and which, through recourse to methods different from those which condition normal competition in products or services on the basis of the transactions of commercial operators, has the effect of hindering the maintenance of the degree of competition still existing in the market or the growth of that competition.”).

79. Joined Cases 40–48, 50, 54–56, 111, 113 & 114/73, *Coöperatieve Vereniging 'Suiker Unie' UA v. Comm'n*, 1975 E.C.R. 1663, ¶ 518 (“[T]he rebate at issue is not to be treated as a quantity rebate exclusively linked with the volume of purchases from the producer concerned but has rightly been classified by the Commission as a ‘loyalty’ rebate designed, through the grant of a financial advantage, to prevent customers obtaining their supplies from competing producers.”).

80. *Hoffmann-La Roche*, 1979 E.C.R. ¶ 90.

81. For a chronological table of the market shares of the incumbents in cases of rebates defended before the European community courts, see table in the Appendix, *infra*.

by an undertaking in a dominant position has foreclosure effects prohibited by Article [102 of the TFEU].”⁸²

This position presents a problem of overall coherence because it leads to two different standards for assessing rebates depending on which Article is used to analyze them. Thus, while the effects-based assessment performed under Article 101 takes into account the efficiencies associated with rebate systems in the framework of single-branding vertical restraints—hold-up, adverse selection, and moral hazard problems⁸³—the inference of foreclosure in *Michelin II* was based on the assumption that, other than a strict cost-related justification, no efficiencies can come from such a system when enabled by a dominant undertaking.⁸⁴ Proving cost justification is extremely difficult,⁸⁵ which means that dominant firms face a nearly irrebuttable presumption that certain practices foreclose and lack any efficiency justification.

The second source of analytical confusion arises from the interaction between the categorization inherent to the form-based approach under Article 102 and the effects-based analysis under Article 101. When the same practice is assessed under both norms, the divergences become apparent—ultimately, the courts must apply different standards under Article 102 to practices with very similar economic effects. The GC provided an example of this internal lack of coherence with two decisions delivered within one month of each other that adopted dissimilar methodologies for assessing single branding obligations: one in the form of price-based conduct (rebates), and another in the form of non-price-based conduct (exclusive dealing).

In the *Michelin II* case, the court found that loyalty-inducing rebates categorically have foreclosure effects when used by dominant firms.⁸⁶ In *Van den Bergh Foods Ltd. v. Commission*, however, the court applied a

82. Case T-203/01, *Manufacture Française des Pneumatiques Michelin v. Comm’n (Michelin II)*, 2003 E.C.R. II-4071, ¶ 65.

83. The GVR establishes that single-branding obligations of up to 80 percent of a customer’s requirements will be lawful if “the supplier’s and buyer’s market share each do not exceed 30% and are subject to a limitation in time of five years for the non-compete obligation.” Commission Notice, *Guidelines on Vertical Restraints*, 2010 O.J. (C 130) 1.

84. See *Michelin II*, 2003 E.C.R. ¶ 65.

85. European Communities Courts have consistently considered the cost-related justification argued by the firms as too vague. *E.g., id.* ¶ 108; Case T-219/99, *British Airways PLC v. Comm’n*, 2003 E.C.R. II-5917, ¶ 285, *aff’d*, Case C-95/04, 2007 E.C.R. I-2331.

86. *Michelin II*, 2003 E.C.R. ¶ 56 (“[W]ith . . . regard to the granting of rebates by an undertaking in a dominant position, . . . a loyalty rebate . . . is contrary to Article [102].”).

foreclosure-based effects analysis⁸⁷ despite facing a firm with an even greater market share than in *Michelin II*.⁸⁸ The apparent difference was that the *Van den Bergh* restraint did not directly involve price. In *Van den Bergh*, the largest producer of ice cream in Ireland, HB, held a market share of the impulse ice cream market over 75 percent⁸⁹ and distributed its product through 40 percent of ice cream retailers.⁹⁰ The producer provided freezer cabinets free of cost but specified that rivals' ice cream could not be stored in its freezers. The GC found that this constituted a common practice in the industry⁹¹ that did not foreclose competitors in an absolute way—as a retailer could in theory sell other brands of ice cream if the retailer installed additional freezers—but acted as an entry barrier that made rivals' access to the market difficult because of the limited space available in the outlets and the “unavoidable trad[e] partner” status of HB.⁹² The Commission had condemned the practice under both Article 101 and 102. As to Article 101, the Commission concluded that the exclusivity clause contained in the agreements could not be exempted on the grounds of Article 101(3).⁹³ As to Article 102, the Commission concluded that HB's practice constituted an abuse of its dominant position because it induced retailers not to have other freezers in their outlets by offering HB's freezers for free.⁹⁴ The court upheld the Commission decision and, in order to establish the foreclosure effects of HB's practice, carried out a detailed analysis of both the market structure and the possible efficiencies of HB's strategy.⁹⁵ Even if the court accepted that an untied demand of 60 percent of retailers did not allow it automatically to assume the existence of anticompetitive foreclosure in the market, its analysis of the economic and legal context of the agreement in the sense of *Delimitis*, and of the presence of cumulative effects of similar contracts to which HB's agreements

87. See Case T-65/98, *Van den Bergh Foods Ltd. v. Comm'n*, 2003 E.C.R. II-4653, ¶¶ 86, 104.

88. Compare *id.* ¶ 21 (citing Commission Decision 98/53 of 11 March 1998 Relating to a Proceeding Under Articles 85 and 86 of the EC Treaty (*Van den Bergh Foods Ltd.*), 1998 O.J. (L 246) 1, 45–46) (reporting HB's market share as being over 75 percent), and *id.* ¶ 90 (reporting HB's market share as being 89 percent), with Commission Decision 2002/405/EC Relating to a Proceeding Pursuant to Article 82 of the EC Treaty (COMP/E-2/36.041/PO—*Michelin*), 2002 O.J. (L 143) 1, 28 (reporting *Michelin's* market share as being over 50 percent, but no estimate exceeding 65 percent).

89. *Van den Bergh Foods*, 2003 E.C.R. ¶ 21; *Van den Bergh Foods*, 1998 O.J. (L 246) at 45–46.

90. *Van den Bergh Foods*, 2003 E.C.R. ¶ 19.

91. *Id.* ¶¶ 18–19. Only 17 percent of Irish retailers had nonexclusive freezers compared to 83 percent of outlets at which a supplier had provided freezers with an exclusivity clause.

92. *Id.* ¶ 154. See also *id.* ¶¶ 61–63.

93. *Id.* ¶ 20.

94. *Id.* ¶ 21–22.

95. See *id.* ¶¶ 97–98.

contributed significantly, led to the conclusion that the agreement was likely to foreclose actual or potential competitors from the market of impulse ice cream.⁹⁶

The inconsistencies related to treating unilateral conduct made clear the need to reassess the application of Article 102.⁹⁷ In 2005, then-European Commissioner Neelie Kroes announced the Commission's intention to evolve from the traditional form-based approach to dominance toward a case-by-case analysis of the actual or likely effects of dominant firm conduct.⁹⁸ The main tool for its implementation was to be the construction of a specific theory of foreclosure that would evaluate whether a given practice indeed had a distorting effect in the market, rather than simply foreclosing one or two less efficient competitors.⁹⁹ Subsequently, the Directorate-General for Competition commissioned a discussion paper calling for a reinterpretation of the definition provided by the ECJ in *Hoffmann-La Roche* that had served to substantiate the previous form-based approach.¹⁰⁰

The Commission then issued a Guidance Paper that announced that the Commission's Article 102 enforcement priorities would be assessing anticompetitive foreclosure as its central element.¹⁰¹ This concept is defined as "a situation where effective access of actual or potential competitors to supplies or markets is hampered or eliminated as a result of the conduct of the dominant undertaking whereby the dominant undertaking is likely to be in a position to profitably increase prices . . . to the detriment of consumers."¹⁰² The factors taken into account by the Commission to assess the existence of anticompetitive foreclosure will be

96. See *id.* ¶ 71–73.

97. See JORDI GUAL ET AL., ECON. ADVISORY GRP. FOR COMPETITION POLICY, AN ECONOMIC APPROACH TO ARTICLE 82, at 2 (2005).

98. See *supra* note 33 and accompanying text.

99. Kroes, *supra* note 33, at 4.

100. Directorate-General for Competition, European Comm'n, *DG Competition Discussion Paper on the Application of Article 82 of the Treaty to Exclusionary Abuses*, at 4–5, 18 (Dec. 2005), available at <http://ec.europa.eu/competition/antitrust/art82/discpaper2005.pdf>.

101. Guidance on the Commission's Enforcement Priorities in Applying Article 82 of the EC Treaty to Abusive Exclusionary Conduct by Dominant Undertakings, 2009 O.J. (C 45) 7, 7, 9–10.

102. *Id.* at 10 (footnote omitted). The Commission's intended definition of "increase prices" is provided in paragraph 11:

[T]he expression 'increase prices' includes the power to maintain prices above the competitive level and is used as shorthand for the various ways in which the parameters of competition—such as prices, output, innovation, the variety or quality of goods or services—can be influenced to the advantage of the dominant undertaking and to the detriment of consumers.

Id. at 8.

(1) the strength of the incumbent's position; (2) the conditions of the relevant market, particularly the conditions of entry and expansion; (3) the position of the competitors, customers, and input suppliers; (4) the extent of the allegedly abusive conduct; and (5) possible evidence of foreclosure as well as direct evidence of any exclusionary strategy developed by the incumbent.¹⁰³ Furthermore, these factors will be supplemented by more detailed criteria governing different species of exclusionary conducts.

Overall, the Guidance Paper is a sign of progress because it grants similar treatment to price- and non-price-based conduct, thus recognizing their similar economic effects. Although the Commission continues to deal with single- and multiproduct rebates under the respective headings of exclusive dealing and tying, and margin squeeze as instances of refusal to deal, it lays down cost-based analyses for price-based conduct. For example, predatory pricing, single- and multiproduct rebates, and margin squeeze tests all focus on the potential for excluding equally efficient competitors by forcing them to price below cost in order to compete. Departing from the methodology applied by the ECJ to predatory pricing in *AKZO Chemie BV v. Commission*,¹⁰⁴ the Commission has moved to cost benchmarks more suitable to the peculiarities of formerly regulated markets and new high-tech industries.

Alas, despite the Guidance Paper's progress in moving vertical restraints toward a more consistent economic framework, analytical difficulties and confusions persist. For one, it is uncertain how the European courts will receive the Commission's new approach.¹⁰⁵ More fundamentally, there remains significant doubt as to the ability of courts consistently to apply the approach to anticompetitive foreclosure.¹⁰⁶

The trouble arises from the Commission's insistence that its approach to anticompetitive foreclosure is not really new but was already used in prior cases.¹⁰⁷ For example, in *Microsoft Corp. v. Commission*, the

103. *Id.* at 10.

104. Case C-62/86, *AKZO Chemie BV v. Comm'n*, 1991 E.C.R. I-3359, ¶¶ 71–72 (holding that prices below average avoidable costs will presumably be illegal while prices above average avoidable costs but below average total costs will be illegal if they are part of a plan to exclude competitors).

105. See Giorgio Monti, *Article 82 EC: What Future for the Effects-Based Approach?*, J. EUR. COMPETITION L. & PRAC. 2, 7–8 (2010).

106. *Id.* at 6–7.

107. Press Release, European Comm'n, Antitrust: Guidance on Commission Enforcement Priorities in Applying Article 82 to Exclusionary Conduct by Dominant Firms—Frequently Asked Questions (Dec. 3, 2008), available at <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/08/761&format=HTML&aged=0&language=EN&guiLanguage=en>.

Commission conceded that it needed to prove foreclosure¹⁰⁸ and the GC upheld its decision.¹⁰⁹ The problem, however, was the construction given to the foreclosure requirement. Microsoft argued that the claim of foreclosure was entirely speculative and, indeed, belied by the factual record showing an increase in the number and use of alternative media players.¹¹⁰ The court, however, countered that this

practice allowed Microsoft to obtain an unparalleled advantage with respect to the distribution of its product and to ensure the ubiquity of Windows Media Player on client PCs throughout the world, thus providing a disincentive for users to make use of third-party media players and for [Original Equipment Manufacturers] to pre-install such players on client PCs.¹¹¹

Far from requiring proof of actual foreclosure, the court simply assumed it existed from the nature of the practice. Should the Guidance Paper result in a widespread approach akin to that employed by the GC in *Microsoft*, it would represent little progress in transitioning away from a formalistic approach toward an economically functionalist approach.

That would be regrettable because good economic tools for evaluating foreclosure questions already exist within the praxis of E.U. competition law, specifically in the Commission's Guidelines on Non-Horizontal Mergers.¹¹² In the section on noncoordinated anticompetitive effects of vertical integration, the Guidelines analyze anticompetitive foreclosure under a two-part test consisting of a definition of foreclosure as well as its anticompetitive component:

A merger is said to result in foreclosure where actual or potential rivals' access to supplies or markets is hampered or eliminated as a result of the merger, thereby reducing these companies' ability and/or incentive

108. Case T-201/04, *Microsoft Corp. v. Comm'n*, 2007 E.C.R. II-3601, ¶ 868 (“[T]he Commission considered that, in light of the specific circumstances of the present case, it could not merely assume, as it normally does in cases of abusing tying, that the tying of a specific product and a dominant product has by its nature a foreclosure effect. The Commission therefore examined more closely the actual effects which the bundling had already had on the streaming media player market and also the way in which that market was likely to evolve.”).

109. *Id.* ¶¶ 866–69.

110. *Id.* ¶ 1006 (“Microsoft claims that the average number of media players per person used each month rose from 1.5 at the end of 1999 to 2.1 in 2004. The Commission’s contention that the number of users of Windows Media Player is increasing is irrelevant; what matters is whether the number of users of other formats is sufficient for content providers to find it worthwhile to encode their products in those formats.”).

111. *Id.* ¶ 1054.

112. Commission Guidelines on the Assessment of Non-Horizontal Mergers Under the Council Regulation on the Control of Concentrations Between Undertakings, 2008 O.J. (C 265) 6.

to compete. Such foreclosure may discourage entry or expansion of rivals or encourage their exit. Foreclosure thus can be found even if the foreclosed rivals are not forced to exit the market: It is sufficient that the rivals are disadvantaged and consequently led to compete less effectively. Such foreclosure is regarded as anti-competitive where the merging companies—and, possibly, some of its competitors as well—are as a result able to profitably increase the price charged to consumers.¹¹³

Significantly, the Guidelines distinguish between two types of foreclosure entailing different competitive problems: input foreclosure and customer foreclosure.¹¹⁴ While input foreclosure might result in raising rivals' costs by restricting the access of downstream competitors to some necessary input, customer foreclosure occurs when upstream rivals' access to customers is precluded.¹¹⁵ In terms of consumer harm, however, both scenarios require balancing the efficiencies associated with the merger with their possible anticompetitive effects. In both cases, three factors should be considered simultaneously: (1) the ability and (2) the incentives to foreclose upstream or downstream competitors, as well as (3) the likelihood of this foreclosure having a "significant detrimental effect" on competition (for input foreclosure) or consumers (for customer foreclosure) by balancing pro- and anticompetitive effects.¹¹⁶

In the case of input foreclosure, upstream market power—while being a precondition for the merged firm to establish the ability to foreclose—will not necessarily imply an associated incentive to foreclose the downstream market. This follows from the fact that the incentives to foreclose will depend on the overall profitability of the merged firm: there will be a tradeoff between the profits lost in the upstream market by not selling to downstream competitors and the profits gained in the downstream market from expanding sales or increasing prices.¹¹⁷ High margins in the upstream market and low margins downstream would disincentivize the firm from enacting any input foreclosure and vice versa.¹¹⁸ Therefore, an upstream monopolist already extracting all available profits will lack the incentive to foreclose downstream competitors regardless of its market power. Conversely, a firm with high downstream market shares, particularly in combination with high margins, will likely

113. *Id.* ¶ 29.

114. *Id.* ¶ 30.

115. *Id.* ¶¶ 30–31, 58.

116. *Id.* ¶¶ 32, 59.

117. *Id.* ¶¶ 40–41.

118. *Id.* ¶¶ 42–43.

benefit from increasing rivals' costs. Furthermore, the presence of exclusivity commitments may represent an ambiguous factor to assess. While exclusive contracts between the downstream merging firm and other independent input suppliers may enhance the latter's ability to foreclose the downstream market, the fact that vertical integration may help realign purchase patterns and free other input suppliers should also be considered.¹¹⁹

For assessing customer foreclosure, the main concerns will also be related to rising input prices but, in this case, as a consequence of the incapacity of upstream actual or potential rivals to achieve minimum production efficiency. This might be, for instance, a result of the insufficient economies of scale or scope—should these be relevant—associated with a larger client base. Moreover, the lack of expected returns can further reduce the upstream competitor's willingness to invest in becoming more efficient. Nevertheless, this possible foreclosure may lead upstream rivals to counterstrategies, such as more aggressive pricing, in order to maintain sales in the downstream market. In this sense, the incentives to engage in customer foreclosure will again depend on its overall profitability. Accordingly, a less efficient upstream division of the integrated firm will entail higher costs of diverting input from other suppliers. Further, the higher the market shares of the downstream division, the more benefits flow from increasing downstream prices as a result of the rise of upstream rivals' costs.¹²⁰

In sum, the Guidelines represent a comprehensive functionalist analysis of the conditions and effects of anticompetitive foreclosure. This implies not only that all associated efficiencies are specifically recognized by and generally referred to in the framework of vertical integration, but also that the positive effects of practices such as tying and bundling are taken into account when analyzing conglomerate mergers.¹²¹

Unfortunately, the Guidelines' approach ends with mergers. In principle, nothing prevents applying the Commission's economically rigorous approach to the question of likely foreclosure from vertical or conglomerate integration. The problem remains, however, when the court is forced to apply the very different analytical criteria under either Article

119. *Id.* ¶ 36.

120. *Id.* ¶¶ 69–70.

121. *Id.* ¶ 93 (“Tying and bundling as such are common practices that often have no anticompetitive consequences. Companies engage in tying and bundling in order to provide their customers with better products or offerings in cost-effective ways.”).

101 or 102 to the question of whether the recently merged firm is engaging in exclusionary vertical restraints depending on whether the restraints are (sometimes arbitrarily) classified as mergers, anticompetitive agreements, or an abuse of dominance.

Like its U.S. analog, E.U. competition law already contains most of the analytical resources necessary for a coherent exclusionary vertical restraints policy. Also, as in the United States, E.U. law applies these analytical resources sporadically and inconsistently. Both systems stand in dire need of economic systematization.

IV. A NORMATIVE FRAMEWORK FOR EVALUATING EXCLUSIONARY VERTICAL RESTRAINTS

Properly understood, all instances of exclusionary vertical restraints—whatever their form—are anticompetitive if they foreclose the opportunity of some rival of one of the contracting parties—whether the party granting or receiving the discount—to operate efficiently in the relevant market. At their core, all exclusionary vertical restraints analyses should converge upon a simple pairing of concepts: foreclosure and substantiality. The first question is whether the contractual practice at issue forecloses any portion of the relevant market. If it does not, the contractual practice is legal and the analysis should come to an end. If the contractual practice does foreclose some share of the relevant market, the next question is whether that foreclosed share is substantial. Here, substantiality should be given an economic, functional definition: foreclosure is “substantial,” and hence *prima facie* unlawful, if it denies rivals a reasonable opportunity to compete for resources (whether customers or inputs) that would be necessary for the rivals’ efficient operation in the market.

A. FORECLOSURE

We take as our point of departure an oft-cited observation from then-Judge Stephen Breyer’s opinion in *Barry Wright Corp. v. ITT Grinnell Corp.* that “virtually every contract to buy ‘forecloses’ or ‘excludes’ alternative sellers from *some* portion of the market, namely the portion consisting of what was bought.”¹²² Since all contracts “foreclose,” “we are to take into account both the extent of the foreclosure and the buyer’s and

122. *Barry Wright Corp. v. ITT Grinnell Corp.*, 724 F.2d 227, 236 (1st Cir. 1983) (Breyer, J.).

seller's business justifications for the arrangement."¹²³ The apparent import of such an analytical approach would be to eliminate any independent importance of the foreclosure element of exclusionary vertical restraints cases and reduce the analysis to the substantiality prong.

Such was surely not Judge Breyer's intention. In an earlier part of the opinion, Judge Breyer rejected the plaintiff's claim that Pacific Scientific's discounts were below cost and therefore predatory.¹²⁴ Once Judge Breyer found the discounts to be above cost (both incremental and total), he concluded that the price cut could "not be found anticompetitive or exclusionary,"¹²⁵ regardless of how much of the market was affected. In other words, Judge Breyer refused to perform a substantiality function on the price discounting claim unless it was first found to foreclose some share of the market by making it impossible for competitors to match the defendant's prices.

Properly understood, the foreclosure prong of the substantial foreclosure analysis should serve an independent threshold function. It should serve to make potentially unlawful only those vertical restraints that prevent competitors from competing on the merits. To state it somewhat more formally, a contract or contractual provision should be deemed to foreclose some share of the market only when it prevents an equally efficient competitor from profitably offering its own set of contractual terms that the customer reasonably might chose in lieu of the defendant's terms for some increment of the market's output. We shall refer to this interpretation of foreclosure as the "reasonable sales opportunity" test.

Under our formulation of the test, unlike in the above-quoted language from *Barry Wright*, most run-of-the-mill contracts would not foreclose at all. Suppose a defendant offers to sell a customer one hundred tons of coal, which constitutes the customer's coal requirements for the next year. Following the *Barry Wright* formulation, one could say that the contract, once accepted, forecloses rivals' ability to make sales to that customer for the year, since the customer will not care to purchase any further coal once it has satisfied its requirements. But if other sellers in the market had a reasonable opportunity to bid for the same business and simply lost the bid because their own bids were less attractive to the buyer, then it is not sensible to speak of the contract as foreclosing any business at all. Under

123. *Id.* at 236–37.

124. *See id.* at 231–36.

125. *Id.* at 236.

our reasonable sales opportunity test, since every other seller in the market was reasonably able to compete for the same business, there is no foreclosure.

Under our interpretation of foreclosure, not even every exclusive dealing contract forecloses a portion of the market. If an exclusive dealing contract covers a sufficiently small, and hence contestable, share of the market such that any rival in the market could reasonably offer its own exclusive dealing contract, there is no foreclosure. Suppose, for example, that a defendant offered an exclusive supply relationship for all of a buyer's requirements for a two-year period. The buyer's share of the market is 2 percent. If even small rivals of the defendant are able to offer a competitive exclusive deal for a two-year period that has a reasonable chance of being accepted, then we would not deem the contract to foreclose any portion of the market.

As discussed above, a vertical relationship such as a contract or sale may not foreclose rivals if the rivals had a reasonable opportunity to compete for the customer's business before the consummation of the contract or sale. Judge Breyer's "every contract forecloses" maxim may also confuse things in another sense—that is, with respect to the rival's opportunities after its competitor has contracted with, or sold to, the customer. The "every contract forecloses" maxim assumes a circumstance in which the customer is willing to purchase only a fixed unit of the good or service from a single seller, as might be the case of a commuter shopping for an automobile or a retiree looking for a lawyer to prepare his or her will. But, in many circumstances, the customer may be willing to purchase generally substitutionary goods from multiple suppliers, assuming that the goods are not perfect substitutes and the marginal utility provided by each purchase exceeds the customer's reservation price. In such circumstances, the first contract of sale may diminish the likelihood that the customer will purchase the second good, but not foreclose it altogether since the second seller may still have an opportunity to demonstrate that the marginal utility of the second purchase makes it worth the customer's while.

It is important to keep this latter qualification in mind, since challenges to exclusionary vertical restraints often occur in markets in which a dominant incumbent has longstanding relationships with most of the major customers in the market and a new entrant is unlikely to persuade customers quickly to abandon their dealing with the incumbent. If the new entrant has a reasonable opportunity to make sales to customers that does not replace the incumbent's sales—and, hence, to expand the market—the

incumbent's vertical relationships have no foreclosing effect. To give an illustration, Nielsen Media Research is at present the sole supplier of syndicated television audience ratings in most local television markets. Until its exit from the business in 1993, however, Arbitron (which currently supplies radio ratings) competed with Nielsen in local television ratings.¹²⁶ During much of the time when the two companies competed in local television ratings, substantially more than half of all local television stations purchased ratings from both Arbitron and Nielsen.¹²⁷ As to these customers, at least, neither supplier's vertical relationship had even an ex post foreclosing effect on the other supplier since the customers were willing to purchase both companies' offerings.

Of course, exclusive contracts entered into by dominant firms often do foreclose competitors. For example, suppose that customers view it as indispensable that a retailer carry at least some of the dominant firm's products on its shelves. In that context, small rivals may not have a reasonable opportunity to match the dominant firm's exclusive offer, since they cannot compete over the noncontestable portion of the dominant firm's sales.¹²⁸ The dominant firm's exclusive offer may be for such a large piece of business that smaller rivals are unable to offer a comparable supply commitment. The dominant firm may have locked up the market in long-term exclusive contracts before the new rivals entered the market, in which case they did not have a reasonable chance of entering into ex ante competition for the contract. These are all examples of circumstances in which a rival might be able to demonstrate the absence of a reasonable sales opportunity for a particular portion of the market and, hence, some degree of foreclosure.

Foreclosure can arise from a wide variety of vertical contractual practices. In particular, both price and nonprice contractual terms can deny rivals reasonable sales opportunities. We have already seen examples of nonprice contractual terms—such as exclusivity commitments—that foreclose. Similarly, some tying arrangements—in which the buyer must purchase from the defendant a product that it otherwise might purchase from another supplier if the customer wishes to purchase a monopoly

126. See *Arbitron Discontinues Syndicated Television & Ratings Service*, BUS. WIRE, Oct. 18, 1993, available in LEXIS.

127. *Ailing Oligopoly: TV Station Rating Business*, BROADCASTING, Apr. 23, 1990, at 63, 63 (reporting that in the top fifty markets, the percentage of stations subscribing to both Nielsen and Arbitron had declined from 80 to 60 percent).

128. We return to the idea of "noncontestable" shares and "unavoidable trading partners" with our discussion of the *Intel* case in Part V.A.

product sold by the defendant—foreclose equally efficient rivals. But a wide variety of predatory or discriminatory discounting and rebating functions can have similar effects.

The most obvious example of a foreclosing pricing policy is a predatory price. When a dominant firm offers buyers a below-cost price, equally efficient rivals are unable to compete for sales to any customers that are offered the predatory prices. The same is true of bundled discount schemes that do not result in a predatory price on the package, but would require a competitor that sold only one of the products covered by the bundle to offer a below-cost price in order to make the customers willing to accept the rival's offer and thereby forgo the package discounts.¹²⁹ Conversely, if the rival is able to match the bundled discounts by giving an equivalent discount in the competitive market and doing so without having to price below cost, then the rival is not foreclosed from making a sale.¹³⁰ Thus, although single-product predatory pricing and bundled discounting require somewhat different computations to determine whether the equally efficient rival would be foreclosed from selling above cost in response to the dominant firm's pricing offer,¹³¹ the foreclosure question to be asked in both cases is analytically identical.

The same observation should also hold for secondary-line price discrimination. If a manufacturer charges different wholesale prices to two competing retailers, the discriminatory price could make it impossible for the disadvantaged firm profitably to meet its competitor's price to downstream customers. In such a circumstance, the reasonable sales opportunity test would hold that the discriminatory price resulted in foreclosure of a percentage of the market corresponding with the volume of the goods sold to the advantaged retailer. Conversely, if the discriminatory price merely made sales more profitable for one retailer than another, it would not foreclose the retailer's sales opportunity in the downstream market.

Tying arrangements can also create foreclosure, as the general test for tying already recognizes.¹³² If the seller has market power in the tying product and requires the buyer to purchase the tied product if it wants to

129. See, e.g., *Cascade Health Solutions v. PeaceHealth*, 515 F.3d 883, 894–97 (9th Cir. 2008).

130. *Id.*

131. See generally Daniel A. Crane, *Mixed Bundling, Profit Sacrifice, and Consumer Welfare*, 55 EMORY L.J. 423 (2006) (discussing mixed bundling).

132. See *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 16 (1984) (discussing the foreclosure requirement).

purchase the tying product, then rivals who make only the tying product may be denied a reasonable opportunity to compete for some segment of sales in the tied market. Conversely, when all firms selling in the tied market also make sales in the tying market, the tying practice results in no foreclosure since firms can respond to the tying firm's tied demand by offering their own package sales of both products.

We have focused thus far on foreclosure of customers, but the same test can be applied—with only a slight variation in language—to input foreclosure.¹³³ Instead of a reasonable sales opportunity test, we would ask whether the practice—whether exclusive input acquisition, predatory overbidding, or other input-oriented restraint—denied rivals a reasonable purchase opportunity. For example, an output agreement that commits a supplier to sell all of its output to a particular buyer should not be deemed to foreclose if rivals had a reasonable opportunity to compete for the output contract. Conversely, if rivals could not reasonably compete for the output contract, for example because their own requirements were likely to be smaller than the seller's output, then we would find the presence of foreclosure and move to the substantiality prong.

B. SUBSTANTIALITY

Foreclosure is not, by itself, a cause for concern. Although we disagree with Judge Breyer's broad dictum that every contract forecloses, many forms of ordinary commercial contracts meet our reasonable sales opportunity test and hence foreclose. Nonetheless, foreclosure should not be considered problematic unless it is "substantial," or "anticompetitive" in E.U. terms. Substantiality in this context should be given a functional, economic definition.

Once a plaintiff has identified practices that foreclose competitors, it is necessary to ascertain whether the foreclosure accounts for such a large percentage of the market that it threatens the survival of rivals. The foreclosure percentage may arise from a single practice or from the cumulative effect of several foreclosing practices. For example, a dominant firm might use a combination of tying contracts covering 20 percent of the market, predatory prices covering another 30 percent of the market, and exclusive dealing contracts covering yet another 10 percent of the market to

133. See Michael A. Salinger, *Vertical Mergers and Market Foreclosure*, 103 Q.J. ECON. 345, 346 (1988) (showing that vertical integration can lead to input foreclosure for unintegrated rivals).

foreclose 60 percent of the market.¹³⁴ In such a case, the same substantiality question should be asked as in a case in which a single practice foreclosed 60 percent of the market. The form of foreclosure should not affect the determination of substantiality.

Extant case law provides few economically useful analytical tools on the meaning of substantiality. Take, for example, the leading articulation of substantiality in the seminal *Tampa Electric Co. v. Nashville Coal Co.* case:

To determine substantiality in a given case, it is necessary to weigh the probable effect of the contract on the relevant area of effective competition, taking into account the relative strength of the parties, the proportionate volume of commerce involved in relation to the total volume of commerce in the relevant market area, and the probable immediate and future effects which pre-emption of that share of the market might have on effective competition therein.¹³⁵

U.S. and E.U. courts and competition authorities typically fall back on percentages, holding for example that “foreclosure levels of less than 30 or 40 percent are not a substantial share.”¹³⁶ But such market share numbers, picked from the air, are utterly arbitrary from an economic perspective. Whether foreclosure is substantial in an economic sense depends on whether the quantity of the foreclosure prevents rivals from functioning efficiently in the market. Ten percent foreclosure might be enough to drive competitors out of one market whereas foreclosure of 70 percent might be perfectly consistent with vibrant competition in another.

In keeping with our reasonable sales opportunity definition of foreclosure, we propose a “reasonable survival opportunity” test for substantiality. Under this test, market foreclosure is not problematic unless an equally efficient rival would lack a reasonable opportunity to obtain a sufficient share of the nonforeclosed portion of the market to reach minimum viable scale.

The first step in the substantiality analysis is to identify the minimum

134. See Daniel A. Crane, *Does Monopoly Broth Make Bad Soup?*, 76 ANTITRUST L.J. 663, 670–72 (2010) (discussing the appropriate uses of the aggregation approach).

135. *Tampa Elec. Co. v. Nashville Coal Co.*, 365 U.S. 320, 329 (1961). Under E.U. law, very similar elements are suggested to evaluate anticompetitive foreclosure. See *supra* notes 101–03.

136. *Midwest Agency Servs., Inc. v. JP Morgan Chase Bank*, No. 09-165-DCR, 2010 U.S. Dist. LEXIS 22457, at *18 (E.D. Ky. Mar. 11, 2010). On the European side, see Summary of Commission Decision of 17 March 2010 Relating to a Proceeding Under Article 102 of the Treaty on the Functioning of the European Union and Article 54 of the EEA Agreement (Case COMP/39.386—Long Term Electricity Contracts France), 2010 O.J. (C 133) 5, 5.

viable scale necessary to compete in the market. Minimum viable scale, a familiar concept from horizontal merger analysis,¹³⁷ equals the total sales a new entrant would need to reach its hurdle rate (a sufficient rate of return to justify the investment) on its invested capital.¹³⁸ So long as a firm is operating at or above minimum viable scale, foreclosure of some percentage of the market does not threaten its market participation, even if it frustrates its ability to expand. Partial market foreclosure strategies, however, can eliminate a competitor's presence from the market altogether, particularly when fixed costs account for a very large percentage of total costs and firms therefore need a significant share of the market in order to cover their fixed costs.¹³⁹ For example, the computer operating systems market is characterized by increasing returns to scale and high fixed costs; hence, by foreclosing even just a portion of the market, Microsoft may have been able to prevent new entry by equally (or more) efficient rivals.¹⁴⁰

It should be noted that the relationship between minimum viable scale and the nonforeclosed share of the market depends on whether sales in the market are static, expanding, or shrinking. In an expanding market, minimum viable scale expressed as a percentage of the market will shrink over time whereas in a contracting market, it will expand. Further, the entrance of a new firm into the market may have effects on the size of the market to the extent that it is measured by revenues rather than units.¹⁴¹ The entry of a new brand often evokes a drop in the equilibrium prices of

137. In the United States, minimum viable scale has also been used in telecommunications regulation. See *Comcast Corp. v. FCC*, 579 F.3d 1, 4 (D.C. Cir. 2009). In Europe, several instruments use the concept of "minimum efficient scale" in order to perform a foreclosure assessment. Commission Guidelines on the Assessment of Non-Horizontal Mergers Under the Council Regulation on the Control of Concentrations Between Undertakings, 2008 O.J. (C 265) 6, 17; Commission Notice, Guidelines on the Application of Article 81(3) of the Treaty, 2004 O.J. (C 101) 97, 108. See also Commission Guidance on the Commission's Enforcement Priorities in Applying Article 82 of the EC Treaty to Abusive Exclusionary Conduct by Dominant Undertakings, 2009 O.J. (C 45) 7, 9; *Case C-209/07, Competition Auth. v. Beef Indus. Dev. Soc'y Ltd.*, 2008 E.C.R. I-8637, 8652.

138. Steven C. Salop, *Measuring Ease of Entry*, 31 ANTITRUST BULL. 551, 563 (1986).

139. See, e.g., Christodoulos Stefanadis, *Selective Contracts, Foreclosure, and the Chicago School View*, 41 J.L. & ECON. 429, 444-45 (1998); Willard K. Tom, David A. Balto & Neil Averitt, *Anticompetitive Aspects of Market-Share Discounts and Other Incentives to Exclusive Dealing*, 67 ANTITRUST L.J. 615, 625-26 (2000) (offering examples of foreclosure strategies that deny rivals' ability to reach minimum viable scale).

140. Stefanadis, *supra* note 139, at 444-45.

141. U.S. DEPT. OF JUSTICE & FED. TRADE COMM'N, HORIZONTAL MERGER GUIDELINES § 1.41 (1992) (explaining that market share is to be measured by "[d]ollar sales or shipments . . . if firms are distinguished primarily by differentiation of their products," and by "[u]nit sales . . . if firms are distinguished primarily on the basis of their relative advantages in serving different buyers or groups of buyers").

existing brands in the market,¹⁴² which means that the new entrant may have to fight for a piece of a shrinking pie.

Once a plaintiff identifies the relevant minimum viable scale and translates the revenue required into a market share percentage, the next step in the substantiality analysis is to identify the probability that an equally efficient competitor in head-to-head competition with the defendant or other rivals in the market would secure a sufficient amount of business in the contestable (nonforeclosed) portion of the market to meet its minimum viable scale. Sometimes, the rival or rivals are already operating at the minimum viable scale despite the foreclosure, in which case the answer to the substantiality question is easy. But many vertical restraints cases concern markets with a longstanding dominant incumbent and a new entrant that has not yet reached minimum viable scale. Such cases require assessing an equally efficient competitor's likelihood of success in the nonforeclosed segment of the market.

In most cases, that analysis requires assessing the probability that customers will switch from the incumbent supplier to the new entrant. Even in the nonforeclosed portion of the market, new entrants often face a considerable disadvantage in competing for business given entrenched brand preferences, loyalty to existing suppliers, and switching costs.¹⁴³ These incumbency advantages could potentially result in even small amounts of foreclosure excluding new entrants since a new entrant's chances of winning business in the nonforeclosed segment of the market are low.

Suppose, for example, a market in which a defendant monopolist has exclusive contracts foreclosing 60 percent of the market. If the minimum viable scale is equal to a 10 percent market share, is the market substantially foreclosed to an equally efficient new entrant? In order to enter efficiently, a new firm must secure 10 percent of the market's business out of an available 40 percent. Put that way, it seems that the foreclosure is not substantial because, if we assign an equal probability to bidding success by the incumbent and the equally efficient new entrant, the new entrant should expect to obtain a 20 percent market share. But the new entrant's prospects for winning business in head-to-head competition with

142. Suman Basroy & Dung Nguyen, *Multinomial Logit Market Share Models: Equilibrium Characteristics and Strategic Implications*, 44 *MGMT. SCI.* 1396, 1401 (1998) (“[F]or any of the existing brands in the market, the optimal ex-post defensive pricing strategy in the face of entry . . . is to reduce the price.”).

143. See LEE G. COOPER & MASAO NAKANISHI, *MARKET-SHARE ANALYSIS* 56–57 (1988).

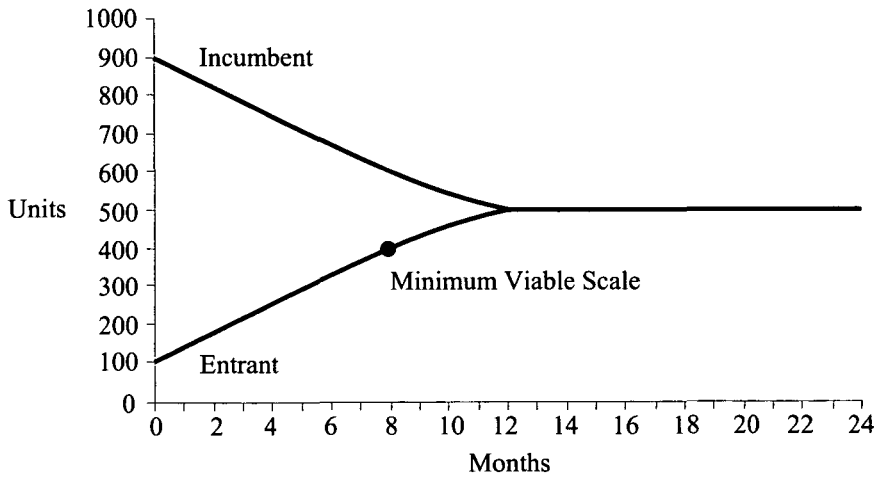
the incumbent may very well be less than 50 percent. Even in the nonforeclosed segment of the market, buyers may have strong loyalties to the incumbent firm or an aversion to experimenting with a new supplier. If, for example, the new entrant's likelihood of winning new business in head-to-head competitive bidding is only 20 percent, then the new entrant should not expect that it will be able to reach minimum efficient scale upon entry. In that case, the foreclosure might be said to be substantial.

Yet it would be a mistake to find the presence of substantial foreclosure simply by focusing on the new entrant's probable market share following the first round of competition in the nonforeclosed portion of the market. Very few new entrants operate at the minimum viable scale immediately upon entry.¹⁴⁴ Incumbency advantages erode over time, and often quite rapidly.

Assume, for example, a market for widgets with a single monopolist, minimum viable scale equal to 20 percent of the market, a 90 percent incumbency advantage, and monthly purchase decisions by customers. Further assume that the market is stable, consists of 2000 units, and that 50 percent of the market is foreclosed. The chart below reflects the market share change in the nonforeclosed portion of the market on a monthly basis. Even with the strong incumbency advantage and foreclosure of half of the market, the new entrant reaches minimum viable scale within eight months and essential market share parity in the nonforeclosed segment by the end of the first year.

144. For example, in developing vertical integration rules for the cable television industry, the Federal Communications Commission defined the minimum viable scale of a television network as based on the number of subscribers a network must have after five years in the market in order to have a 70 percent chance of survival. Comm'n's Cable Horizontal & Vertical Ownership Limits, 23 FCC Rcd. 2134, 2161-62 (2008).

FIGURE. Market Share Change in the Nonforclosed Portion of the Market



As a general rule, we propose that foreclosure should not be deemed substantial if the minimum viable scale, expressed in units or revenues, is less than the units or revenues¹⁴⁵ in the nonforclosed segment of the market divided by the number of competitors. Thus, in our example of a market with 50 percent foreclosure, minimum viable scale equal to 20 percent, and an incumbent monopolist and one new entrant, there would be no substantial foreclosure as a matter of law.¹⁴⁶

Our proposed rule has the effect of disregarding incumbency advantages and assuming that, over time, the new entrant has an equal chance of winning business as every other competitor. Several important qualifications are necessary.

First, a generic application of this rule might lead to a false positive—an erroneous finding of substantial foreclosure—if the new entrant’s actual probability of winning exceeds its generic probability of winning. Indeed, far from arguing that the incumbent has an incumbency advantage, new entrants often argue that, but for the foreclosure, they would quickly gain market share since they would enter the market with a superior product or

145. See *supra* note 137.

146. In our example, the total number of units in the nonforclosed segment of the market (1000) divided by the number of competitors (here, two) is equal to 500. With a minimum viable scale of 20 percent, the new entrant needs 400 units to reach minimum viable scale. Thus, because the minimum viable scale is fewer than the units in the nonforclosed segment of the market, there is no substantial foreclosure.

lower price than the incumbent. Likewise, in private damages cases, the plaintiff's damages model often assumes that but for the foreclosure, the plaintiff would have rapidly gained a large market share.¹⁴⁷ Courts and agencies should take into account—perhaps with a grain of salt—the rival's often self-serving claims about its product's superiority when determining the necessary space for competition.

Second, in markets with very long intervals between competitive cycles—for example, because there are few customers or long-term contracts—incumbency advantages may take a long time to wear off. In such cases, it may be necessary to relax the assumption that the new entrant has an equal probability of winning business in the unforeclosed segment of the market. Nonetheless, the analysis should remain bounded by realistic assumptions about the rival's probability of winning and the timeframe necessary for a new entrant to reach its hurdle rate on capital.

Third, partially foreclosed markets with multiple competitive firms raise a number of special issues. In the *Standard Stations* case, Standard Oil's exclusive dealing contracts amounted to only 6.7 percent of retail sales in the relevant gasoline distribution market,¹⁴⁸ yet the aggregate effect of all of the seven major oil companies' exclusive dealing contracts may have been to foreclose 65 percent of the overall market.¹⁴⁹ None of the seven major oil companies were foreclosed from the market, but the exclusives presented entry barriers to new entrants who could not reasonably expect to achieve minimum viable scale given the opportunity to compete for only 35 percent of the market's business.

Although we are skeptical that the exclusive contracts in *Standard Stations* diminished the market's competitiveness, we would cautiously recognize the possibility of cumulative foreclosure in other cases. In such cases, the baseline principle of substantiality—that foreclosure should not be deemed substantial if the minimum viable scale is less than the units or revenues in the nonforeclosed segment of the market divided by the number of competitive firms in the market—should continue to apply. Although increasing the denominator could lead to excessively liberal findings of substantiality, markets that already exhibit a number of competitive firms should be characterized by low minimum viable scales,

147. See Richard C. Hoyt, Dale C. Dahl & Stuart D. Gibson, *Comprehensive Models for Assessing Lost Profits to Antitrust Plaintiffs*, 60 MINN. L. REV. 1233, 1243 (1976).

148. *Standard Oil Co. of Cal. v. United States (Standard Stations)*, 337 U.S. 293, 295 (1949).

149. See Friedrich Kessler & Richard H. Stern, *Competition, Contract, and Vertical Integration*, 69 YALE L.J. 1, 29–30 (1959).

thus limiting the potential size of the numerator. In *Standard Stations*, for example, the seven major oil companies amounted to about 65 percent of all retail sales, but the remainder was fragmented among seventy small companies.¹⁵⁰ The presence of a number of smaller firms in the market will often provide market-tested data on minimum viable scale and discipline plaintiffs' claims that a large scale is necessary to compete in the market.

Further, when multiple firms in the market employ similar vertical restraints—such as exclusive dealing contracts or other types of loyalty-inducing provisions—the vertical restraints are more likely to be manifestations of competition than exclusion. While a pattern of vertical restraints by separate firms may be anticompetitive, it is most likely to be true when the vertical restraints are being used to cartelize an industry, in which case a separate analytical framework should come into play.¹⁵¹ It would be very unusual to observe firms in an oligopolistic market employing vertical restraints to exclude new entrants without also colluding with one another. Individually, the firms would lack market power and therefore could not foist undesirable restrictions on customers. If the firms individually sought to induce their customers to agree to terms that would exclude new entrants, they would have to pay the customers to agree to such terms—for example, by giving discounts or other inducements. The firms would be spending money to exclude new entrants, and each dollar they spent on the campaign would rebound to the benefit of their existing competitors as well.¹⁵² A far more likely interpretation in such a situation is that vertical restraints are part of the currency of competition.

As with the foreclosure element, the substantiality element applies equally in customer foreclosure and input foreclosure cases. Input foreclosure can raise a rival's costs, for example, by forcing the rival to purchase inferior or more expensive resources.¹⁵³ Such effects threaten the competitiveness of the market when they threaten to prevent the rival from

150. See *Standard Stations*, 337 U.S. at 295.

151. See *supra* Part II.A.

152. Even in a fairly concentrated oligopoly, it is relatively unlikely that an individual firm would expend resources to exclude or marginalize a rival if any benefit would be widely shared with the other oligopolists. In *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 228 (1993), for example, the Supreme Court found it implausible that a firm with an 11–12 percent share would engage in predatory pricing, since it would have to generate \$9 of market-wide supracompetitive profits during the recoupment stage for every dollar invested in the predation stage in order to recover its predatory investment.

153. See Thomas G. Krattenmaker & Steven C. Salop, *Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power over Price*, 96 YALE L.J. 209, 234–38 (1986) (discussing how competitors may raise rivals' costs by limiting supply).

selling profitably at a scale necessary to remain a competitive force. Hence, in input foreclosure cases, we would ask whether the foreclosure is so severe that rivals lack a reasonable opportunity to survive in the market, as determined by their ability to cover their hurdle rates on capital.

It bears repeating that we have articulated a two-part prima facie test for exclusionary vertical restraints, and not a comprehensive framework for assessing legality in every vertical restraints case. In particular, we have not dealt with efficiencies defenses, which are generally considered affirmative defenses by the defendant after the plaintiff has made an affirmative case of foreclosure.¹⁵⁴ The twin principles of foreclosure and substantiality should serve as an overarching screen in the full variety of exclusionary vertical restraints cases. In situations in which the plaintiff fails to demonstrate substantial foreclosure—as will be true in many vertical restraints challenges—there is no reason to analyze efficiencies.¹⁵⁵

V. THREE ILLUSTRATIONS

In the previous section, we proposed a unified prima facie test for all exclusionary vertical restraints that requires a showing that the restraint forecloses a substantial share of the relevant market. In this section, we illustrate our proposed test with three cases in which applying our framework could have improved the agency's or court's analysis. The cases illustrate three sorts of vertical restraint circumstances: (1) customer foreclosure, (2) input foreclosure, and (3) multiproduct foreclosure.

A. CUSTOMER FORECLOSURE: *INTEL/AMD*

On August 4, 2010, Intel and the Federal Trade Commission (“FTC”) announced a settlement of the FTC’s antitrust enforcement action against

154. See *United States v. Microsoft Corp.*, 253 F.3d 34, 58–59 (D.C. Cir. 2001) (en banc) (per curiam) (setting out a multipart test for monopolization offenses, in which a procompetitive justification is an affirmative defense to be proven by the defendant).

155. There is substantial literature on the efficiencies justifications for various kinds of vertical restraints. See, e.g., David S. Evans & Michael Salinger, *Why Do Firms Bundle and Tie? Evidence from Competitive Markets and Implications for Tying Law*, 22 YALE J. ON REG. 37 (2005) (explaining bundling and tying practices as manifestations of product-specific scale economies); Jan B. Heide, Shantanu Dutta & Mark Bergen, *Exclusive Dealing and Business Efficiency: Evidence from Industry Practice*, 41 J.L. & ECON. 387 (1998) (arguing that business efficiency factors play a significant role in firms’ decisions regarding exclusive dealing); Benjamin Klein & Kevin M. Murphy, *Exclusive Dealing Intensifies Competition for Distribution*, 75 ANTITRUST L.J. 433, 437–65 (2008) (examining the role of exclusive shelf space contracts in elasticizing the demand facing manufacturers and hence in driving down consumer prices).

Intel.¹⁵⁶ The FTC settlement was the final major chapter in Intel's decade-long antitrust war with Advanced Micro Devices ("AMD"), its major rival in the global microprocessor market. Prior episodes included a settlement with the Japanese Fair Trade Commission,¹⁵⁷ a fine by the Korean Fair Trade Commission approximately equivalent to \$25 million,¹⁵⁸ a \$1.25 billion dollar payment by Intel to settle AMD's private antitrust lawsuit,¹⁵⁹ and a €1.06 billion (almost \$1.5 billion) fine by the European Commission,¹⁶⁰ the highest it had ever imposed.¹⁶¹ Intel challenged the Commission decision in the GC.¹⁶² The Commission's decision is notable for its length—518 pages—although the publicly available version has redacted confidential facts.¹⁶³ For all its detail, however, the Commission analysis omits an essential ingredient of an exclusionary vertical restraints case—evidence that the relevant restraints substantially foreclosed the relevant market by denying AMD the opportunity to reach minimum viable scale.

Intel and AMD produce microprocessors and compete to supply Original Equipment Manufacturers ("OEMs"), companies that produce personal and business computers such as Dell, Hewlett Packard, NEC, Acer, and Lenovo. Intel and AMD's corporate history is at the origin of multiple disputes concerning intellectual property rights.¹⁶⁴ In the early

156. Complaint, *In re Intel Corp.*, No. 9341 (FTC Dec. 16, 2009), available at <http://www.ftc.gov/os/adjpro/d9341/091216intelcmpt.pdf>; Agreement Containing Consent Order, *Intel*, No. 9341 (FTC July 28, 2010), available at <http://www.ftc.gov/os/adjpro/d9341/100804intelagree.pdf> (settlement agreement).

157. Mark LaPedus, *Intel Accepts Order to Stop Unfair Trade Practices in Japan*, INFORMATIONWEEK (Mar. 31, 2005, 9:12 PM), <http://www.informationweek.com/story/showArticle.jhtml?articleID=160401642>.

158. S. KOR. FAIR TRADE COMM'N, CORRECTIVE MEASURES AGAINST INTEL'S ABUSE OF MARKET DOMINANCE (2008), [http://eng.ftc.go.kr/files/bbs/2008/Intel%20Case\(08.6.\)1.pdf](http://eng.ftc.go.kr/files/bbs/2008/Intel%20Case(08.6.)1.pdf).

159. Steve Lohr & James Kanter, *A.M.D.-Intel Settlement Won't End Their Woes*, N.Y. TIMES, Nov. 13, 2009, at B1.

160. Summary of Commission Decision of 13 May 2009 Relating to a Proceeding Under Article 82 of the EC Treaty and Article 54 of the EEA Agreement (COMP/C-3/37.990—Intel), 2009 O.J. (C 227) 13, 17.

161. James Kanter, *Europe Fines Intel \$1.45 Billion in Antitrust Case*, N.Y. TIMES, May 14, 2009, at B8.

162. See, e.g., Kevin J. O'Brien, *Intel Appeals Antitrust Ruling*, N.Y. TIMES, July 22, 2009, www.nytimes.com/2009/07/23/technology/business-computing/23chip.html.

163. See Commission Decision of 13 May 2009 Relating to a Proceeding Under Article 82 of the EC Treaty and Article 54 of the EEA Agreement (COMP/C-3/37.990—Intel) [hereinafter Intel Provisional Commission Decision], available at http://ec.europa.eu/competition/sectors/ICT/intel_provisional_decision.pdf.

164. See Complaint at 5, *Advanced Micro Devices, Inc. v. Intel Corp. (In re Intel)*, 452 F. Supp. 2d 555 (D. Del. 2006) (No. 05-441).

1980s, IBM chose Intel to manufacture the Central Processing Units (“CPUs”) for IBM’s PCs. It only did so, however, on the condition that Intel would license its technology to a second source provider—AMD.¹⁶⁵ The IBM agreement resulted in Intel’s CPU (“x86”) becoming the de facto industry standard. Shortly after the IBM agreement, AMD began to complain that Intel was not providing the information necessary for AMD to manufacture its new generation of microprocessors, which allegedly allowed Intel to consolidate its power in the market.¹⁶⁶ After years of litigation, Intel was obliged to provide AMD with its x86 technology.¹⁶⁷

In 1995, AMD started to move beyond merely copying Intel’s microprocessors and attempted to compete on both technology and price. On the innovation front, AMD designed the first 64-bit microprocessor.¹⁶⁸ On the price front, Intel justified its historically higher Average Selling Price (“ASP”) per unit as the result of better quality and performance.¹⁶⁹ The companies have followed significantly different investment strategies. Intel invested heavily in new billion-dollar manufacturing facilities (called “fabs”) with a view to expanding output in order to meet its market share objectives. AMD opted to concentrate its capital investments in research and development and outsourced the manufacture of its microprocessors.¹⁷⁰ In the market for x86 microprocessors, Intel had a market share around 80 percent between 1998 and 2009 whereas AMD’s usually hovered between 15 and 20 percent.¹⁷¹

AMD alleged that, beginning in the late 1990s, Intel employed a variety of exclusionary contractual practices when dealing with OEMs and retailers to slow AMD’s market share growth. Intel granted the major OEMs all-unit rebates and marketing payments in order to promote Intel-based computers. It also directly or indirectly granted important retailers (such as Media Markt in Europe) payments for the promotion of its products.¹⁷² These rebates were allegedly associated with different degrees of exclusivity commitments. AMD also accused Intel of imposing “naked

165. *Id.*

166. *See id.* at 6.

167. *Id.* at 7.

168. Intel Provisional Commission Decision, *supra* note 163, ¶ 146 (reporting that Intel launched its own 64-bit CPU seventeen months later).

169. *Id.* ¶¶ 136, 138.

170. Answer at 2–3, *In re Intel*, 452 F. Supp. 2d 555 (No. 05-441).

171. JOSHUA D. WRIGHT, INT’L CTR. FOR LAW & ECON., AN ANTITRUST ANALYSIS OF THE FEDERAL TRADE COMMISSION’S CASE AGAINST INTEL 7 fig.1 (2010).

172. Intel Provisional Commission Decision, *supra* note 163, ¶¶ 177–81.

restrictions” consisting of payments to major OEMs for delaying or canceling the launching of AMD-based computers or for establishing certain restrictions on their distribution.¹⁷³

Building on these facts, the Commission’s decision to fine Intel provided an unofficial application of its new economic approach to dominance¹⁷⁴ that unfortunately failed to solve the ambiguities and inconsistencies identified in the previous section.¹⁷⁵ The Commission’s decision showed problems from the beginning. As in the only previous decision dealing with similar practices in the framework of the new economic approach to Article 102, *Tomra*,¹⁷⁶ the Commission started by denying any need to show market foreclosure in Article 102 cases generally and in loyalty rebate cases particularly on the authority of prior case law including *Hoffmann-La Roche*.¹⁷⁷ Despite tipping its hat to the old form-based approach, the Commission declared that it would perform an economically oriented anticompetitive foreclosure analysis after all.

For simplicity, we focus here on the Commission’s treatment of Intel’s de facto exclusivity rebates. Early in the decision, the Commission seemed to express categorical hostility to exclusivity rebates, noting that “customers which, on the basis only of competition on the merits, may have awarded a part of their purchases to a competing supplier, may prefer

173. Summary of Commission Decision of 13 May 2009 Relating to a Proceeding Under Article 82 of the EC Treaty and Article 54 of the EEA Agreement (COMP/C-3/37.990—Intel), 2009 O.J. (C 227) 13, 16.

174. See Intel Provisional Commission Decision, *supra* note 163, ¶ 916 (“The Commission . . . takes the view that this Decision is in line with the [economics-based] orientations set out in the guidance paper.”).

175. See Damien Geradin, *The Decision of the Commission of 13 May 2009 in the Intel Case: Wherel s the Foreclosure and Consumer Harm?*, 1 J. EUR. COMPETITION L. & PRAC. 112, 112 (2010).

176. Summary of Commission Decision of 29 March 2006 Relating to a Proceeding Under Article 82 of the Treaty Establishing the European Community and Article 54 of the EEA Agreement Against Tomra Systems ASA, Tomra Europe AS, Tomra Systems BV, Tomra Systems GmbH, Tomra Butikksystemer AS, Tomra Systems AB and Tomra Leergutsysteme GmbH (COMP/E-1/38.113—Prokent—Tomra), 2008 O.J. (C 219) 11, 13–14.

177. *Intel*, 2009 O.J. (C 227) at 15 & n.1 (citing Case 85/76, *Hoffmann-La Roche & Co. AG v. Comm’n*, 1979 E.C.R. 461, ¶ 89). See also Intel Provisional Commission Decision, *supra* note 163, ¶¶ 919–920, 920 & n.1225 (citing several relevant cases including *Hoffmann-La Roche*, 1979 E.C.R. ¶ 89; Case T-219/99, *British Airways PLC v. Comm’n*, 2003 E.C.R. II-5917, ¶ 244, *aff’d*, Case C-95/04, 2007 E.C.R. I-2331, ¶¶ 62, 65; Case T-203/01, *Manufacture Française des Pneumatiques Michelin v. Comm’n (Michelin II)*, 2003 E.C.R. II-4071, ¶ 56; Joined Cases T-24/93, T- 25/93, T-26/93 & T-28/93, *Compagnie Maritime Belge Transps. SA v. Comm’n*, 1996 E.C.R. II-1201, ¶¶ 182–86; Case C-393/92, *Gemeente Almelo v. Energiebedrijf Ijsselmij NV*, 1994 E.C.R. I-1477, ¶ 44; Case T-65/89, *BPB Indus. & British Gypsum Ltd. v. Comm’n*, 1993 E.C.R. II-389, ¶¶ 71, 120; and Case C-62/86, *AKZO Chemie BV v. Comm’n*, 1991 E.C.R. I-3359, ¶ 149).

to source all or nearly all of their inputs from the dominant company in order to obtain the benefit of the discount.”¹⁷⁸ Later, however, the Commission discussed the possibility of using a test proposed by the Guidance Paper and popular in the United States: “[O]ne possible way of examining whether exclusivity rebates are capable or likely to cause anticompetitive foreclosure is to conduct an as efficient competitor analysis.”¹⁷⁹ The “equally efficient competitor” test is intended to assess whether the dominant firm itself would survive, given its cost structure, if it had to respond to the challenged pricing structures.¹⁸⁰

Since most of the challenged rebating practices were single-product practices (in other words, bundling claims were not an issue), the Commission could not take the position that AMD was unable to compete with Intel over the full range of CPU sales. Thus, in order to find that Intel’s rebate foreclosed AMD, the Commission made a finding that Intel was an “unavoidable trading partner” for most of the major OEMs.¹⁸¹ In other words, since some core group of the OEM’s customers demanded Intel microprocessors in their computers, the OEM had to do at least some of its business with Intel. This meant that less than 100 percent of this OEM’s purchases were “contestable” in a competition between Intel and AMD. Hence, the Commission found that when Intel offered a loyalty rebate spread over all of the OEMs’ CPU requirements, AMD could attempt only to match that rebate over some fraction of the OEM’s requirements.¹⁸² If, in order to match Intel’s loyalty rebate, AMD would be forced to price below cost in the contestable segment, then an equally efficient competitor to Intel would be foreclosed from selling to that customer.

Much of the disagreement between Intel and the Commission on the application of the equally efficient competitor test concerned what constitutes an avoidable cost within the measurement of average avoidable costs—in other words, the measure of cost used to assess whether AMD would have to price below cost in order to match Intel’s rebates.¹⁸³ That controversy is beyond the scope of this paper. The Commission found that,

178. Intel Provisional Commission Decision, *supra* note 163, ¶ 938.

179. *Id.* ¶ 1002.

180. Communication from the Commission, Guidance on the Commission’s Enforcement Priorities in Applying Article 82 of the EC Treaty to Abusive Exclusionary Conduct by Dominant Undertakings, 2009 O.J. (C 45) 7, 11. *See also* POSNER, *supra* note 6, at 215.

181. Intel Provisional Commission Decision, *supra* note 163, ¶¶ 870, 886, 892, 894.

182. *Id.* ¶¶ 1002–12. *See also Intel*, 2009 O.J. (C 227) at 15.

183. Intel Provisional Commission Decision, *supra* note 163, ¶¶ 1036–54.

as to a number of OEMs, at least some portion of the OEMs' business was foreclosed to AMD by Intel's rebates,¹⁸⁴ and we accept that finding as legitimate for the sake of argument.

The problem with the Commission's analysis is that it essentially stopped at foreclosure and failed to consider whether the foreclosure was substantial in an economically meaningful sense. Significantly, there was no finding that AMD was shut out of the market—indeed, from the late 1990s to 2009, AMD's market share grew from approximately 10 percent to approximately 20 percent.¹⁸⁵ Further, the Commission could not have found that Intel's rebates foreclosed AMD's access to even the major OEMs since AMD made significant sales to most of the major OEMs.¹⁸⁶

What sort of evidence, then, should have sufficed to show that whatever sales were foreclosed to AMD were sufficiently important that they affected AMD's viability in the market? The Commission stressed that the microprocessor industry is characterized by output expansion, rapid innovation, falling prices,¹⁸⁷ and high barriers for entry and expansion¹⁸⁸ as a result of the necessary research and development investments, brand image, and fabs.¹⁸⁹ From this, the Commission believed that high net margins and economies of scale were crucial for survival.¹⁹⁰ Since 2000, several smaller competitors exited the market.¹⁹¹ In combination, these factors provided evidence that the market was susceptible to monopolization, but they did not show that foreclosure of AMD from a particular segment of the market threatened AMD's viability. Indeed, for much of the relevant period, AMD reported positive operating income.¹⁹² Although we are unable to reach a firm conclusion from the publicly available data, it seems unlikely that a generally profitable and innovative company with a growing market share could claim that it was substantially foreclosed from the market.

184. *Id.* ¶¶ 1281, 1406, 1456, 1507, 1573–75.

185. WRIGHT, *supra* note 171, at 7 fig.1.

186. In 2006, Dell added AMD's Opteron microprocessor for use in its servers. Ashlee Vance, *Dell Hooks Up with AMD*, REGISTER (May 18, 2006, 8:14 PM), http://www.theregister.co.uk/2006/05/18/dell_picks_amd. Hewlett Packard offered a business desktop with an AMD microprocessor in 2002. Intel Provisional Commission Decision, *supra* note 163, ¶ 952.

187. See Answer at 2, *Advanced Micro Devices, Inc. v. Intel Corp. (In re Intel)*, 452 F. Supp. 2d 555 (D. Del. 2006) (No. 05-441).

188. Intel Provisional Commission Decision, *supra* note 163, ¶ 881.

189. See *id.* ¶ 866.

190. See *id.* ¶ 875.

191. *Id.* ¶ 882.

192. WRIGHT, *supra* note 171, at 10.

Rather than attempting to prove that the foreclosure was substantial insofar as it threatened AMD's ability to remain a viable and innovative presence in the market, the Commission focused on the impact of Intel's loyalty rebates on customer choice.¹⁹³ The Commission believed the foreclosure of AMD from a segment of an OEM's business harmed consumers because it diminished the variety of purchasing options they faced, even if it did not increase their prices.¹⁹⁴ Thus, some computer users who would have preferred an AMD microprocessor to an Intel microprocessor would find their preference thwarted because the retailer they visited would offer only an Intel microprocessor.

This argument fails to give sufficient weight to consumers' interests in lower prices and OEMs' incentives to promote the consumer interest. As long as AMD remains a viable presence in the market, the OEMs must weigh Intel's discount and rebate offers as a tradeoff between a real price reduction (as opposed to a temporary predatory price cut to be followed by supracompetitive monopoly prices following AMD's ouster from the market) and diminution in the variety they can offer their customers. Assuming a competitive computer market, an OEM's profit-maximizing strategy will be either lower price or greater variety, whichever increases its market share by satisfying customer demand. If the OEM decides to forgo variety for price, this will usually be because customers, in the aggregate, would prefer lower prices to greater variety. Examples of similar tradeoffs abound in the economic literature. For instance, Benjamin Klein and Kevin Murphy have shown that retailers, by giving manufacturers exclusive shelf-space deals, are able to elasticize the demand facing the manufacturer by eliminating idiosyncratic variety preferences and hence exact lower wholesale prices from the manufacturers.¹⁹⁵ While some customers with strong variety preferences may face net welfare losses, consumers as a class generally gain from the lower prices.¹⁹⁶

Throughout the period relevant to the Intel/AMD saga, microprocessor prices to final consumers plummeted. According to the Bureau of Labor Statistics, in recent years prices relative to performance have dropped more precipitously for microprocessors than for any other of the 1200 product

193. Intel Provisional Commission Decision, *supra* note 163, ¶¶ 1598–1616 (discussing how Intel's exclusionary practices had a negative impact on customers who otherwise would have had a wider price and quality choice).

194. *Id.*

195. Klein & Murphy, *supra* note 155, at 437–65.

196. *Id.* at 451–54.

categories that the Bureau tracks.¹⁹⁷ This evidence is at odds with a finding that Intel impaired AMD's ability to function in the market.

The Commission's *Intel* decision shows significant progress by engaging in a rigorous foreclosure analysis. Alas, it stops with the first half of the story. Foreclosure in this sense—the denial of a reasonable sales opportunity—is endemic in many highly competitive markets. Without an analysis of substantiality, however, it fails to provide a satisfactory answer to the questions competition policy is meant to address.

B. INPUT FORECLOSURE: APPLE / ORANGE FRANCE

A good example of the need to systematize the European approach to exclusionary vertical restraints and anticompetitive input foreclosure appears in the French Competition Authority's enforcement action against Apple and Orange France.¹⁹⁸ Apple—the manufacturer of the iPhone—and Orange France—a provider of phone services in France and several other European countries—agreed that Orange France would be the exclusive distributor of the iPhone to the French market for a five-year period.¹⁹⁹ On the surface, the relevant market shares seemed to make the deal unproblematic. In 2008, iPhones enjoyed a share of 5.3 percent of all smartphones, and smartphones amounted to only 10–13 percent of the

197. See Robert E. Cooper, *AMD v. Intel: An Assault on Price Competition*, GLOBAL COMPETITION POL'Y 8 (Mar. 17, 2008), http://www.intel.com/pressroom/legal/docs/Cooper_GCP_Mar08.pdf. The relevant data charts appear in Motion of Intel Corp. Under Rule 3.36 for Leave to Take a Deposition of the Bureau of Labor Statistics Under Rule 3.33(c)(1) at Ex. 2, *In re Intel Corp.*, No. 9341 (FTC May 27, 2010), available at <http://www.ftc.gov/os/adjpro/d9341/100527intelmoleavedeposebls.pdf>.

198. Council Regulation 1/2003 of 16 December 2002 on the Implementation of the Rules on Competition Laid Down in Articles 81 and 82 of the Treaty, art. 3, 2003 O.J. (L 1) 1, 8 (EC) (“Where the competition authorities of the Member States or national courts apply national competition law to agreements, decisions by associations of undertakings or concerted practices within the meaning of Article 81(1) of the Treaty which may affect trade between Member States within the meaning of that provision, they shall also apply Article 81 of the Treaty to such agreements, decisions or concerted practices.”).

199. Autorité de la concurrence [Competition Authority] decision No. 10-D-01, Jan. 11, 2010 (Fr.), available at <http://www.autoritedelaconcurrence.fr/pdf/avis/10d01.pdf>. For English explanations of the case see Press Release, Autorité de la Concurrence, End of the iPhone Marketing Exclusivity in France (Jan. 12, 2010) [hereinafter Postdecision Press Release], available at http://www.autoritedelaconcurrence.fr/user/standard.php?id_rub=368&id_article=1335, and Press Release, Autorité de la Concurrence, Marketing of the iPhone in France (Nov. 3, 2009) [hereinafter Predecision Press Release], available at http://www.autoritedelaconcurrence.fr/user/standard.php?id_rub=316&id_article=1297.

mobile phones sold worldwide.²⁰⁰ Further, it is hard to see how exclusive channeling of a relatively small market share item would foreclose rivals from the market.

The French Competition Authority, however, believed that the iPhone's unique attractiveness made it a larger competitive presence than its small market share. Rivals of Orange such as SFR were signing their own exclusive distribution deals for other attractive smartphones such as the Blackberry and HTC, but rather than considering the rivals' exclusive deals as likely to mitigate any foreclosing effects of the Apple/Orange deal, the French Competition Authority worried about cumulative foreclosure by a series of manufacturer-distributor deals.²⁰¹ Faced with the French Competition Authority's enforcement action, Apple and Orange agreed to suspend any pact of exclusivity for the iPhones already in the market and to limit any exclusive agreement concerning the distribution of future versions of this product to a maximum of three months.²⁰²

Under our substantial foreclosure test, the Apple/Orange exclusive deal might not present foreclosure, much less substantial foreclosure. The fact that rival distributors were negotiating their own exclusive deals for marquee brands suggests the existence of an active auction process for exclusive distribution rights. If Orange foreclosed SFR by signing up Apple, then SFR foreclosed Orange by signing up Blackberry and HTC. More likely, the cellular phone distribution market is characterized by "[c]ompetition-for-the-contract" rather than competition within the brand.²⁰³ To be sure, winner-takes-all auctions for exclusive distribution rights might reduce the number of distributor firms or marginalize the fringe firms, but a mere reduction in the number of distributors does not

200. ROBERT HAHN & HAL J. SINGER, *MOBILEFUTURE, WHY THE IPHONE WON'T LAST FOREVER AND WHAT THE GOVERNMENT SHOULD DO TO PROMOTE ITS SUCCESSOR* 11 tbl.2 (2009) (showing that in the first quarter of 2008 Apple held a 5.3 percent worldwide market smartphone share); Press Release, Gartner, Gartner Says Worldwide Mobile Phone Sales Declined 8.6 Per Cent and Smartphones Grew 12.7 Per Cent in First Quarter of 2009, available at <http://gartner.com/it/page.jsp?id=985912> (indicating in table 2 that in the first quarter of 2008 Apple held a 5.3 percent market share and stating that "Smartphone sales represented 13.5 per cent of all mobile device sales in the first quarter of 2009, compared with 11 per cent in the first quarter of 2008"); Jim Dalrymple, *Apple Doubles Its iPhone Market Share*, CNET (May 20, 2009, 6:13 AM), http://news.cnet.com/8301-13579_3-10245339-37.html ("Apple's share of worldwide smartphone sales grew from 5.3 percent in the first quarter of 2008 to 10.8 percent in the first quarter of 2009.").

201. See Predecision Press Release, *supra* note 199.

202. *Id.*; Postdecision Press Release, *supra* note 199.

203. *Paddock Publ'ns, Inc. v. Chi. Tribune Co.*, 103 F.3d 42, 45 (7th Cir. 1996) (Easterbrook, J.) ("Competition-for-the-contract is a form of competition that antitrust laws protect rather than proscribe, and it is common.").

necessarily signal a general diminution in the competitiveness of the distribution function.

Assuming that the exclusivity deal foreclosed some rival by denying it a reasonable input-acquisition opportunity, there remains the substantiality question—whether carrying the iPhone was so important to the foreclosed distributors that its denial threatened their existence in the cell phone distribution market. We do not dispute that current market share numbers may sometimes be a poor proxy for the competitive importance of an input, but it is unlikely that access to the iPhone was indispensable for survival in the market. Again, the example of the SFR / Blackberry and HTC deals suggests the contrary.

Further, it would not be in Apple's interests to grant exclusive distributorship rights that would weaken the competitiveness of the distribution market.²⁰⁴ To Apple, distribution is merely a cost that it prefers to cover as inexpensively as possible. A monopolist distributor would raise prices and diminish sales, which would mean that Apple would sell fewer iPhones without sharing in the distributor's higher prices.²⁰⁵ We do not mean to suggest that exclusive distributorship agreements can never be anticompetitive since the manufacturer's interests on the question of distributor power will be aligned with those of the consumer.²⁰⁶ In the case of a strong and sophisticated manufacturer like Apple, however, the prospect that the exclusive agreement would diminish the distribution segment's long-run competitiveness seems remote.

The Apple / Orange France episode provides an opportunity to reiterate a point made earlier—that secondary-line price discrimination is just a species of input foreclosure. Suppose that instead of granting Orange exclusivity, Apple had simply given it preferential pricing terms that had made it difficult for rival distributors to carry the iPhone. In that case, the same analytical questions—Did the discount structure deny rivals a reasonable input purchase opportunity and was it so substantial that it denied them a reasonable survival opportunity?—should be addressed.

204. See, e.g., *Leegin Creative Leather Prods., Inc. v. PSKS, Inc.*, 551 U.S. 877, 896 (2007) (“[T]he interests of manufacturers and consumers are aligned with respect to retailer profit margins.”); Francine Lafontaine & Margaret Slade, *Exclusive Contracts and Vertical Restraints: Empirical Evidence and Public Policy*, in *HANDBOOK OF ANTITRUST ECONOMICS* 391, 395–97 (Paolo Buccirossi ed., 2008).

205. See *Leegin*, 551 U.S. at 896.

206. See Robert Pitofsky, *In Defense of Discounters: The No-Frills Case for a Per Se Rule Against Vertical Price Fixing*, 71 *GEO. L.J.* 1487, 1491 (1983) (questioning the assumption that manufacturer interests are aligned with those of retailers).

C. MULTIPRODUCT FORECLOSURE: MASIMO/TYCO

As noted at the outset, one of the key sources of confusion in vertical restraints cases has been the treatment of contractual terms that span multiple product lines, particularly those that involve the grant of a price concession in exchange for purchase commitments across multiple product categories. Courts have struggled to categorize such terms analytically, analogizing or disanalogizing them to tying, exclusive dealing, bundling, and predatory pricing.²⁰⁷ This focus on legal categorization rather than economic analysis has led to inconsistent and confused decisions.

A good example appears in the private litigation between Masimo and Tyco, competitors in the production of pulse oximetry systems, which measure a patient's lung function.²⁰⁸ Masimo claimed that Tyco attempted to exclude it from the pulse oximetry market through a variety of vertical contractual practices including "loyalty discounts," sole-source exclusive dealing contracts, bundled rebates, and exclusionary financing terms.²⁰⁹ A jury returned a verdict for Masimo on several of the challenged practices, but the district judge set aside the verdict insofar as it predicated liability on the bundled rebates.²¹⁰ Masimo challenged that holding on appeal to the Ninth Circuit.²¹¹

During the course of the appeal, the Ninth Circuit decided another bundled discounting case—*Cascade Health Solutions v. PeaceHealth*.²¹² In that case, the Ninth Circuit held that "a plaintiff who challenges a package discount as anticompetitive must prove that, when the full amount of the discounts given by the defendant is allocated to the competitive product or products, the resulting price of the competitive product or products is below the defendant's incremental cost to produce them."²¹³ On appeal, Masimo resisted application of the *PeaceHealth* discount attribution standard, arguing that "Tyco's bundling practices were actually illegal market-share discounts, rather than general bundled discounts."²¹⁴ The Ninth Circuit credited Masimo's argument:

207. See *supra* Part III.A.

208. *Masimo Corp. v. Tyco Health Care Grp., L.P.*, No. CV 02-4770 MRP, 2006 U.S. Dist. LEXIS 29977, at *2-3 (C.D. Cal. Mar. 22, 2006), *aff'd*, 350 Fed. App'x 95 (9th Cir. 2009).

209. *Id.* at *3.

210. *Id.* at *15-18, *37, *43-44.

211. *Masimo*, 350 F. App'x 95.

212. *Cascade Health Solutions v. PeaceHealth*, 515 F.3d 883 (9th Cir. 2008).

213. *Id.* at 909.

214. *Masimo*, 350 F. App'x at 97.

There is truth to Masimo's argument. Tyco's bundling contracts gave customers a price discount for purchasing a number of unrelated products together, one being pulse oximetry. However, receipt of the discount was conditioned upon customers purchasing 90–95% of their *requirements* of those products from Tyco. If a customer bought less than the required minimum, the discounts would be lost or decreased. That is conditioning the discount on the requirement of near complete exclusivity. This effectively prevents customers from dealing in the goods of competitors, if the customers want to obtain Tyco's discount. That is the hallmark of exclusive dealing.²¹⁵

Despite agreeing in principle with Masimo's argument, the Ninth Circuit affirmed the district court's vacatur of the jury verdict because there was insufficient evidence that the foreclosure was substantial.²¹⁶ Also, Masimo had litigated the case under a bundled discount theory and should not have been allowed to change its position on appeal.²¹⁷

The Ninth Circuit's reasoning illustrates the continued confusion caused by a form-based approach to vertical restraints. Under the court's approach, the initial decision categorized the restraint as either bundled discounting or tying / exclusive dealing. If the former, the practice would be subject to a discount reallocation exercise for the purpose of establishing whether an equally efficient rival that made only one of the products covered by the bundled discount would be foreclosed from competing for that product. If the practice were categorized as tying, foreclosure would be assumed and the analysis would shift immediately to whether the foreclosure was substantial.

Under our proposed framework, the foreclosure and substantiality questions should be asked in succession regardless of any initial categorization of the practice as bundled discounting, tying, exclusive dealing, or something else. Failure to ask both questions could result in false positives. Categorization of the practice as predatory pricing could result in a finding of liability even though the number of effectively below-cost contracts was insufficient to deprive Masimo of a reasonable opportunity to reach minimum viable scale. Categorization of the practice as tying could result in a finding of liability even if Masimo were effectively able to dissuade customers from accepting Tyco's bundled offer by offering its own above-cost price concessions.

215. *Id.*

216. *Id.*

217. *Id.*

The lynchpin of the court's categorization decision was its belief that the conditioning of the discount on a market share commitment "effectively prevents customers from dealing in the goods of competitors, if the customers want to obtain Tyco's discount."²¹⁸ But suppose that the discounts on noncompetitive products (in other words, products that Masimo did not sell) were small enough to allow Masimo profitably to offer its own discounts on pulse oximeters sufficient to neutralize the effect of Tyco's bundled discount. In that case, the fact that the bundled offer required a minimum market share commitment from the customer would have no foreclosing effect. Masimo apparently recognized this since it claimed that it would only have been able to match the discounts by pricing substantially below cost.²¹⁹ If the converse were true, there would be no foreclosure.

VI. CONCLUSION

The law of exclusionary vertical restraints is in dire need of overall systemization. Courts and agencies on both sides of the Atlantic frequently stumble over apparent differences among commercial practices that are similar in their exclusionary potential. Instead of seeking to understand whether the practices in fact diminish the market's competitiveness, the courts or agencies often fall back on categorical formalisms that lead to dramatically different treatment of economically indistinguishable practices.

Fortunately, both U.S. and E.U. legal and administrative structures contain sufficient resources to emerge from the present muddle without radical reimagination of either system's principles or precedents. The twin principles of foreclosure and substantiality that we have outlined in this Article have sufficient roots in both systems to justify their incremental elevation to a generalized test for exclusionary vertical restraints.

Merely recognizing substantial foreclosure as a meta-analytical matrix will not eliminate many difficulties in implementing vertical restraints policy. Thorny issues—such as the appropriate measure of cost to use in assessing foreclosure—will persist. Still, unifying the first principles would establish a solid foundation for progressing toward a more coherent and consistent vertical restraints policy.

218. *Id.*

219. *Masimo Corp. v. Tyco Health Care Grp., L.P.*, No. CV 02-4770 MRP, 2006 U.S. Dist. LEXIS 29977, at *25 (C.D. Cal. Mar. 22, 2006), *aff'd*, 350 Fed. App'x 95 (9th Cir. 2009).

VII. APPENDIX

TABLE. Chronological Table of Market Shares in Cases of Rebates

<i>Date</i>	<i>Case Name</i>	<i>Market Share (%)</i>
1975	Coöperatieve Vereniging 'Suiker Unie' UA v. Commission ^a	90–95
1979	Hoffmann-La Roche & Co. AG v. Commission ^b	47–100
1983	NV Nederlandsche Banden-Industrie Michelin v. Commission (<i>Michelin I</i>) ^c	57–65
1991	Hilti AG v. Commission ^d	70–80
1993	BPB Industries and British Gypsum Ltd. v. Commission ^e	90–93
1994	Tetra Pak International SA v. Commission ^f	90–95
1999	Irish Sugar Plc v. Commission ^g	90
2001	Portuguese Republic v. Commission ^h	Legal Monopoly
2003	Manufacture Française des Pneumatiques Michelin v. Comm'n (<i>Michelin II</i>) ⁱ	>50
2003	British Airways Plc v. Commission ^j	±40

^aJoined Cases 40–48, 50, 54–56, 111, 113 & 114/73, Coöperatieve Vereniging 'Suiker Unie' UA v. Comm'n, 1975 E.C.R. 1663 (citing Commission Decision of 2 January 1973 Relating to Proceedings Under Articles 85 and 86 of the EEC Treaty (IV/26.918—European Sugar Industry), 1973 O.J. (L 140) 17, 39).

^bCase 85/76, Hoffmann-La Roche & Co. AG v. Comm'n, 1979 E.C.R. 461, 466–67 (citing Commission Decision 76/642 of 9 June 1976 Relating to a Proceeding Under Article 86 of the Treaty Establishing the European Economic Community (IV/29.020—Vitamins), 1976 O.J. (L 223) 27, 29–30).

^cCase 322/81, NV Nederlandsche Banden-Industrie Michelin (*Michelin I*), 1983 E.C.R. 3461, ¶ 33 (citing Commission Decision 81/969 of 7 October 1981 Relating to a Proceeding Under Article 86 of the EEC Treaty (IV/29.491—Bandengroothandel Friesbrug BV/NV Nederlandsche Banden-Industrie Michelin), 1991 O.J. (L 353) 33, 40).

^dCase T-30/89, Hilti AG v. Comm'n, 1991 E.C.R. II-1439, ¶¶ 85, 89, 92 (citing Commission Decision 88/138 of 22 December 1987 Relating to a Proceeding Under Article 86 of the EEC Treaty (IV/30.787—Hilti), 1988 O.J. (L 65) 19, 22).

^eCase T-65/89, BPB Indus. & British Gypsum Ltd. v. Comm'n, 1993 E.C.R. II-389, ¶ 100 (citing Commission Decision 89/22 of 5 December 1988 Relating to a Proceeding Under Article 86 of the EEC Treaty (IV/31.900—BPB Indus.), 1989 O.J. (L 10) 50, 61).

^fCase T-83/91, Tetra Pak Int'l SA v. Comm'n, 1994 E.C.R. II-755, ¶ 13 (citing Commission Decision 92/163 of 24 July 1991 Relating to a Proceeding Pursuant to Article 86 of the EEC Treaty (IV/31043—Tetra Pak II), 1991 O.J. (L 72) 1, 3).

^gCase T-228/97, Irish Sugar Plc v. Comm'n, 1999 E.C.R. II-2969, ¶¶ 70–71 (citing Commission Decision 97/624 of 14 May 1997 Relating to a Proceeding Pursuant to Article 86 of the EC Treaty

(IV/34.621, 35.059/F-3—Irish Sugar), 1997 O.J. (L 258) 1, 18).

^h Case C-163/99, *Portuguese Republic v. Comm'n*, 2001 E.C.R. I-2613, ¶ 56; Commission Decision 1999/199 of 10 February 1999 Relating to a Proceeding Pursuant to Article 90 of the Treaty (IV/35.703—Portuguese Airports), 1999 O.J. (L 69) 31, 35.

ⁱ Case T-203/01, *Manufacture Française des Pneumatiques Michelin v. Comm'n (Michelin II)*, 2003 E.C.R. II-4071.

^j Case T-219/99, *British Airways Plc v. Comm'n*, 2003 E.C.R. II-5917, ¶ 211 (citing Commission Decision 2000/74 of 14 July 1999 Relating to a Proceeding Under Article 82 of the EC Treaty (IV/D-2/34.780—Virgin/British Airways), 2000 O.J. (L 30) 1, 11) (listing market shares ranging from 39.7 percent to 46.3 percent), *aff'd*, Case C-95/04, 2007 E.C.R. I-2331, ¶¶ 62, 65.