ARTICLES

THE DAMAGING IMPACT OF THE *EASTMAN KODAK* PRECEDENT UPON PRODUCT COMPETITION: ANTITRUST LAW IN NEED OF CORRECTION

DANIEL J. GIFFORD*

In the dynamic markets of the present day, competition is the driving force behind the widespread and pervasive development of new products and new product capabilities. Innovative activity, which is especially manifest in the high-technology sectors, contributes significantly to national economic well-being.[1] Yet the courts, the bar, and most legal scholars have given inadequate attention to the critical role that antitrust rules can play in encouraging or stifling innovative activity.[2] Rather, a good deal of the

---

* Robins, Kaplan, Miller & Ciresi Professor of Law, University of Minnesota. The author gratefully acknowledges helpful comments on an earlier draft of this Article by Professors Leo Raskind and Victor Kramer.

1. The development of new products and technology contributes to national economic well-being because it generates new and higher value-added outputs. In addition, the development of new products and technology generates positive externalities for the economy in the diffusion of skills and knowledge. *See, e.g.*, LAURA D'ANDREA TYSON, WHO'S BASHING WHOM? TRADE CONFLICT IN HIGH-TECHNOLOGY INDUSTRIES 12 (1993); LESTER THUROW, HEAD TO HEAD 146 (1992).

2. Historically, the connection between antitrust and innovative behavior has focused upon the patent-misuse/antitrust interface and joint ventures for research and development. Congress has modified judicially created doctrines governing patent misuse to provide wider protection to innovative activity than the courts would otherwise have allowed. *See* 35 U.S.C. § 271 (1988). Congress has also legislated twice in the last decade to protect creative activities undertaken cooperatively. See the National Cooperative Research and Production Act of 1993, Pub. L. No. 103-42, 107 Stat. 117 (codified at 15 U.S.C. §§ 4301-4305 (Supp. V 1993)), which expanded the coverage of the National Cooperative Research Act of 1984, Pub. L. No. 98-462, 98 Stat. 1815 (codified at 15 U.S.C. §§ 4301-4305 (1988)). Substantial scholarly attention was directed to the problems that led to the 1993 legislation. *See, e.g.*, ANTITRUST, INNOVATION, AND COMPETITIVENESS 56-57 (Thomas M. Jorde & David J. Teece eds., 1992).

In the area of innovation at levels below that of the novelty required for patent protection, however, International Logistics Group v. Chrysler Corp., 884 F.2d 904, 908 (6th Cir. 1989), *cert. denied*, 494 U.S. 1066 (1990), is one of the few judicial opinions to advert explicitly to the danger of deterring innovation engendered by overly expansive interpretations of the antitrust laws. The antitrust literature is similarly lacking in its appreciation of the role of the antitrust laws in fostering product competition. The few articles that address the positive role of product competition include: BETTY BOCK, THE traditional antitrust literature has focused narrowly upon price and output in relatively static market settings, and the newer strategic behavior branch of antitrust writing has not focused on the potential dampening effect of antitrust rules on innovative activity.[3] The challenge for the antitrust law of the 1990s, however, is to foster competition in the creation of new products and new product capabilities; to act as a stimulus (and not as a deterrent) to innovation.[4]

In this Article, I respond to this challenge by refocusing antitrust analysis on the important matter of product competition—competition in the design and development of new products and new product capabilities. I do that here by directing my analysis to issues raised by the most important judicial decision affecting product competition in decades: the United States Supreme Court's 1992 decision in *Eastman Kodak Co. v. Image Technical Services, Inc.*[5] Not only does that decision have major ramifications on product competition, but the critiques[6] of that decision have largely

---

INNOVATOR AS AN ANTITRUST TARGET (Conf. Board Info. Bull. No. 74, 1980); Joseph G. Sidak, *Debunking Predatory Innovation*, 83 COLUM. L. REV. 1121 (1983); and Case Comment, *Antitrust Scrutiny of Monopolists' Innovations*, 93 HARV. L. REV. 408 (1979).

3. On strategic antitrust analysis, see, e.g., Joseph F. Brodley & Ching-to Albert Ma, *Contract Penalties, Monopolizing Strategies, and Antitrust Policy*, 45 STAN. L. REV. 1161 (1993); Thomas G. Krattenmaker & Steven C. Salop, *Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power over Price*, 96 YALE L.J. 209 (1986); and Herbert Hovenkamp, *Antitrust Policy After Chicago*, 84 MICH. L. REV. 213 (1985).

4. The Antitrust Division of the Department of Justice appears to be aware of the role that antitrust can play in fostering innovation and competition in developing new products. *See* U.S. Dep't of Justice, Antitrust Guidelines for the Licensing and Acquisition of Intellectual Property §§ 1, 2, 2.3, 5.3, 5.4 (Draft 1994), 7 Trade Reg. Rep. (CCH) ¶ 50,141. *See also* Catherine Yang, *Trustbusters Go Gunning for High Tech*, BUS. WK., Mar. 7, 1994, at 64, 64. According to the cited article, Assistant Attorney General (for Antitrust) Anne K. Bingaman is examining ways in which overly broad patent or software copyright protection can stifle innovation. *Id.* The Division has brought and settled a suit against Microsoft Corp. United States v. Microsoft Corp., 6 Trade Reg. Rep. (CCH) ¶ 45,094, Case No. 4088 (1994) (summarizing the complaint and settlement agreement). That settlement, however, was rejected by the district court and is currently under appeal. *See Court Rejects Proposed Consent Decree in Microsoft as Not in Public Interest*, Antitrust & Trade Reg. Rep. (BNA) 194 (Feb. 16, 1995).

5. 112 S. Ct. 2072 (1992).

6. The major focus of many of the critiques of the *Kodak* case has been the limitation of the relevant market to the product of a single manufacturer and the market-information issue. *See, e.g.*, articles cited *infra* note 27. Other commentators have directed their attention to still other issues raised by that case. Professor Herbert Hovenkamp, for example, has used the *Eastman Kodak* case as a basis for analyzing the relations between markets for inputs and markets for final products in which the inputs are components. *See* Herbert Hovenkamp, *Market Power in Aftermarkets: Antitrust Policy and the* Kodak *Case*, 40 UCLA L. REV. 1447 (1993). In this connection, he observes that where the input constitutes a small part of the final product, the effect of the input producer's monopoly on the price of the final product is small when measured in percentage terms. *Id.* at 1456-57.

neglected the dampening effects of the *Eastman Kodak* precedent on innovation. These ramifications are examined here.

In the following pages, I employ a critique of the *Eastman Kodak* case to explore how the law of tying and monopolization can be misused to discourage innovation. My argument is based upon a factual premise which is patently obvious: product innovation often means the design and manufacture of nonstandard equipment, equipment which necessarily requires nonstandard replacement parts. My analysis then examines several circumstances to which this set of affairs gives rise.

Part I sets the stage for the analysis that follows by describing the *Eastman Kodak* decision and its ramifications for product competition. Part II explores the legalities of the several situations in which a manufacturer of nonstandard equipment may find itself: such a manufacturer almost invariably will be selling replacement parts for its equipment; often it may be selling service as well and sometimes it may provide (or want to provide) exclusive service for its equipment. In Part II, the relation between the production and sale of nonstandard equipment and nonstandard replacement parts is examined first. I conclude that although equipment owners are often as "locked-in" as anyone can be to a single source of parts, there is no legally cognizable tie in such a circumstance. Second, the legal consequences of an equipment manufacturer tying service to the sale of equipment are examined. I conclude that there is no illegality when the manufacturer lacks market power over equipment. Third, the specific question raised in the *Eastman Kodak* case—the tie of service to nonstandard parts—is raised and explored. I conclude that there is no legally cognizable tie, essentially because the manufacturer lacks an incentive to exploit the service market by charging supracompetitive prices for service. Part III explores the reasons why a manufacturer of nonstandard equipment would want to provide exclusive servicing for that equipment, and concludes that the most likely explanation is to protect the equipment's reputation. An alternative explanation is also identified, relating to the capture of more of the economic value of the equipment. Finally, in Part IV, the Article calls for the courts to rethink the way they impose burdens of proof in antitrust cases. The most likely state of affairs (as indicated by experience or economic analysis) should be presumed, and the party asserting the rare or the unlikely should carry the burden of proving it.

I. THE *EASTMAN KODAK* DECISION AND ITS RAMIFICATIONS FOR PRODUCT COMPETITION

A. The Issues and Their Significance

The *Eastman Kodak* decision involved a producer of high-volume photocopier and micrographics equipment. The Court ruled that Kodak's entry into the business of servicing its own brand of equipment created prima facie cases of both unlawful tying and monopolization, which Kodak would be required to disprove at trial. The disposition of the case and the Court's analyses of the tying and monopolization issues carry negative ramifications for all manufacturers of physically differentiated products.

The case arose because Kodak (the equipment manufacturer) was the sole source of replacement parts for its brand of equipment, which was physically different from other brands. Kodak decided that it wanted to service its own brand exclusively, and therefore refused to sell parts to independent servicing organizations (ISOs) or to permit equipment owners to use Kodak-supplied parts with ISO service. In the Court's view, this behavior constituted a tie.[7] Kodak's behavior does not fit the conventional tying language, because Kodak sold parts to equipment owners who needed them with or without Kodak service, but it does fit the statutory model of a tie.[8] And, in the view of the Court majority, Kodak's refusal to sell parts to the ISOs might also constitute monopolization of the Kodak-brand parts market, depending in part upon whether Kodak could establish a "business

7. 112 S. Ct. at 2080 & n.8. The case is remarkably unclear as to the behavior constituting the tie. The Court stated in the text of its opinion "that Kodak would sell parts to third parties only if they agreed not to buy service from ISOs," *id.* at 2080, and then in an accompanying footnote restated Kodak's behavior as selling "to third parties on condition that they buy service from Kodak." *Id.* at 2080 n.8. As pointed out *infra* note 8, the Court's first description appears to be the correct one. The Ninth Circuit approached the issue in a slightly different way. That court read the provision in Kodak's agreement with equipment owners, "that it [would] sell parts only to users 'who service only their own Kodak equipment,'" as constituting the tie. Image Technical Serv., Inc. v. Eastman Kodak Co., 903 F.2d 612, 619 (9th Cir. 1990), *aff'd*, 112 S. Ct. 2072 (1992). Another circuit court read the same contractual language as not constituting a tying agreement. Service & Training, Inc. v. Data Gen. Corp., 963 F.2d 680, 686 n.12 (4th Cir. 1992).

8. The tying offense was governed by section 1 of the Sherman Act, 15 U.S.C. § 1 (1988), because its coverage is not restricted to commodities, as is that of section 3 of the Clayton Act, 15 U.S.C. § 14 (1988). Because Kodak's behavior fits the analytical model employed in the latter provision, it could be visualized as a tie: the Clayton Act describes a tie as a sale on condition that the purchaser not use the goods of another. 15 U.S.C. § 14 (1988). In the instant case Kodak sold parts to equipment owners on condition that they not use outside service supplied by a non-Kodak source. 112 S. Ct. at 2077.

justification" for the refusal.[9]

The case raises a host of questions about the impact of the antitrust laws upon a manufacturer of a physically differentiated product. As shown below, however, the majority's analysis was flawed by two critical oversights. First, the dependency by purchasers of nonstandard equipment upon the manufacturer of that equipment for replacement parts does not in itself give rise to an antitrust tying or monopolization offense. Hence, equipment purchasers in the paradigm lock-in case are unprotected by the antitrust laws.[10] Second, a manufacturer of nonstandard equipment exhausts whatever "power" it might possess in parts by pricing those parts in accordance with what the market will bear, and thus has no ability to exploit the market in servicing its brand of equipment to the disadvantage of locked-in equipment owners.[11] Because the Court majority recognized neither of these aspects of the situation of a differentiated product producer, it was led to an incorrect conclusion. Worse, the result exerts a significant corrosive impact upon manufacturers' incentives to develop innovative product designs.

B. The Decision and Its Rationale

1. The Facts

Eastman Kodak involved an attempt by Kodak to take over the servicing of its high-volume photocopier and micrographics equipment. Prior to 1982, Kodak had serviced that equipment. By 1982, independent servicing organizations had begun to displace Kodak servicing. In 1985, however, Kodak decided that it wanted to service its own brand of equipment exclusively.[12] Although Kodak continued to supply parts to ISOs to service existing equipment, under its new policy Kodak no longer supplied parts to the ISOs for use in servicing Kodak-brand equipment purchased after 1985. Kodak, however, supplied parts to equipment owners who wished to service their own equipment.[13] Because of their inability to

9. 112 S. Ct. at 2091. In addition to the business justification issue, the determination of whether Kodak-brand parts constitute a relevant market will be made at trial. The evidence which the plaintiff ISOs mustered to preserve the relevant-market issue for trial was marginal at best. *See infra* pp. 1534-35.

10. *See infra* pp. 1522-23.

11. *See infra* pp. 1525-28.

12. 112 S. Ct. at 2077-78.

13. Kodak did insist that owners who purchased parts use the parts themselves and not resell them to others. Justice Blackmun, citing the lower court's opinion, erroneously characterized that arrangement

purchase replacement parts as needed, the ISOs lost much of their ability to service Kodak-brand equipment.

The ISOs responded to the new Kodak policy by instituting a lawsuit charging Kodak with a tying violation of section 1 of the Sherman Act and with monopolization and attempted monopolization under section 2. The asserted tie consisted of the sale of parts (the tying product) only on the condition that the purchaser not take service (the tied product) from a non-Kodak source.[14] The section 2 charge was based upon Kodak's refusal to sell parts and was premised on the existence of a brand-specific relevant market: a market consisting of replacement parts for Kodak-brand equipment. After the district court granted summary judgment for Kodak, a divided Ninth Circuit reinstated both the tying and the section 2 claims. The Supreme Court then affirmed the action of the Ninth Circuit in reinstating both claims.

2. The Tying and Monopolization Issues

The tying issue turned on the application of the rule of "per se" illegality to the alleged tie: Kodak's sale of parts to equipment owners only on condition that they not purchase accompanying service from a non-Kodak outside source. Under the conventional formulation, a tying arrangement is treated as per se illegal if the seller possesses power in the market for the tying product, and a "not insubstantial" volume of commerce in the market for the tied product is affected. The underlying rationale for this rule has been viewed as one of "coercion" or "forcing": if a seller controls a major proportion of the tying product, it can force buyers who need the tying product to purchase the tied product from it as well. The application of the per se rule to Kodak depended critically upon whether a separate market existed in Kodak-brand parts or whether, as Kodak maintained, competition in the interbrand equipment market constrained its behavior in selling parts and service. As with the tying, the monopolization issue turned on whether a separate market existed in Kodak-brand parts and, if so, whether Kodak had a duty to sell parts to its competitors in the service market.

---

as one in which Kodak sold parts only on condition that the buyer also take service. 112 S. Ct. at 2080 n.8 (citing Image Technical Serv., Inc. v. Eastman Kodak Co., 903 F.2d 612, 619 (9th Cir. 1990)). The cited portion of the lower court opinion deals with the agreement of owners purchasing parts to use the parts themselves and does not deal with an agreement by owners to purchase service. *See* 903 F.2d at 619.

14. *See supra* note 8.

3. *The Problematic Nature of the Decision*

The *Eastman Kodak* decision has been rightly understood as raising a host of problems apart from its impact upon product competition. It threatens to undo recent case law developments which had begun to reflect a scholarly consensus that tying arrangements were not as pernicious as the courts had been accustomed to asserting prior to the 1970s.[15] It raises substantial issues about the selection and use of presumptions throughout antitrust law as well as about the proper relation between antitrust presumptions and the economic theory in which they are grounded.[16] It threatens the vitality, in antitrust law, of the summary judgment mechanism, which has proved of immense importance in shortening litigation. The decision's failure to assess the impact of antitrust law upon product competition, however, may be, in the long run, the most critical of all its defects.

4. *The Majority's Rationale: The Interplay Between the Lock-In Effect and Market Information*

In upholding the plaintiff ISOs' claims, the majority (speaking through Justice Blackmun) employed a so-called lock-in analysis. Kodak held a one hundred percent share of the "market" for Kodak parts. Equipment buyers, once they purchased Kodak-brand equipment that was physically different from rival equipment, were locked-in to Kodak replacement parts. The majority believed that Kodak's one hundred percent share of the Kodak replacement parts market was sufficient to give rise to a presumption of market power in the Kodak-brand parts market. Then Kodak's presumed power in the Kodak-brand parts market triggered the per se rule applicable

---

15. The Court began to strengthen the standards for meeting the per se rule in United States Steel Corp. v. Fortner Enters., 429 U.S. 610 (1977). In Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2 (1984), the Court further heightened the showing of power in the tying product required for the application of the per se rule, *id.*, and four Justices sought to abolish the per se rule entirely. 466 U.S. at 32-35 (O'Connor, J., concurring).

16. The Court effectively presumed Kodak's power in a market of Kodak-brand parts from Kodak's 100% share of that market, and cast upon Kodak the burden of establishing that competition in the product market constrained its power in the parts and service aftermarkets. When antitrust decisions allow presumptions of market power to be drawn from data on market share, they rely upon economic theory. Yet, Kodak also relied upon economic theory in contending that the aftermarkets should be presumed to be constrained by the equipment market. The Court failed to explain why it chose to place the burden on Kodak of proving that it lacked market power when economic theory also supported the presumption for which Kodak contended. Moreover, for reasons set forth in the text, Kodak appears to have had the stronger position. *See infra* p. 1533.

to tying arrangements.[17] In defense, Kodak contended that it had no power in the Kodak-brand parts market because its selling decisions over parts were constrained by competition in the interbrand equipment market—buyers of Kodak-brand equipment were necessarily aware that they would eventually require parts for repair and maintenance.[18] Any attempt by Kodak to exploit its power as the sole source of replacement parts (to equipment owners locked-in to Kodak parts) would make its equipment less attractive vis-à-vis other brands and would divert sales to rivals. The same constraint existed in the service market. According to Kodak, any attempt to exploit the parts or service market by raising prices above competitive levels would be equivalent to raising prices on equipment.[19] And since the interbrand equipment market—where Kodak apparently maintained only a twenty to twenty-three percent share[20]—was concededly competitive, an increase in price there would have diverted substantial sales to competitors.[21]

Viewed in these terms, the crucial question was whether competition in the interbrand equipment market exercised the constraining effect that Kodak claimed. In theory, the interbrand equipment market should have exercised that constraint, but the Court majority was unwilling to presume that reality corresponded with theory. The majority's misgivings about accepting a constraint postulated by theory were rooted in a suspicion that some purchasers may not have been fully informed about the prices that Kodak was charging for servicing. This suspicion was reinforced by evidence that Kodak had apparently "[charged], through negotiations and bidding, different prices for equipment, service, and parts for different

---

17. 112 S. Ct. at 2087-88.

18. *Id.* at 2081-82.

19. *Id.* at 2085.

20. The Ninth Circuit's opinion noted that Kodak estimated its share of the micrographics market to be less than 20% and its share of the high-volume copier market to be approximately 23%, and that the plaintiffs did not dispute Kodak's assertion that it lacked power in the interbrand equipment markets. Image Technical Serv., Inc. v. Eastman Kodak Co., 903 F.2d 612, 616 n.3 (9th Cir. 1990). The Supreme Court decided the case on the assumption that competition existed in the equipment market. 112 S. Ct. at 2081 n.10.

21. A similar argument was articulated by Judge Richard Posner in his dissenting opinion in Parts & Elec. Motors, Inc. v. Sterling Elec., Inc., 866 F.2d 228, 236 (7th Cir. 1988) (Posner, J., dissenting), *cert. denied*, 493 U.S. 847 (1989). Professor Hay has pointed out that the constraint exercised by the equipment market on the aftermarkets does not depend upon the existence of competition in the equipment market, since even a monopoly price in the latter market will tend to be forced downwards by price increases in the aftermarkets. *See* George A. Hay, *Is the Glass Half-Empty or Half-Full? Reflections on the* Kodak *Case*, 62 ANTITRUST L.J. 177, 189 (1993).

customers,"[22] thus raising the possibility that the protection afforded by competition in the interbrand equipment market was available to some, but not all, buyers. Those buyers who learned about Kodak's alleged monopoly pricing for service demanded and received offsetting price reductions on that or other parts of the total package of equipment, parts, and service, but less-informed buyers did not.[23] Because of these concerns, the majority placed on Kodak the burden of proving that the interbrand equipment market constrained the servicing market.[24]

On the monopolization issue, the majority held that if the existence of a separate market in parts were established at trial, Kodak would have the burden of proving a "business justification" for its refusal to sell parts to its rivals in the servicing market. Although Kodak came forward with several justifications for its policy, the Court ruled that a trial was necessary in order to determine whether those justifications were valid and sufficient or merely "pretextual."[25]

Justice Scalia, writing for himself and Justices O'Connor and Thomas, argued primarily in support of accepting the presumption urged by Kodak, i.e., that competition in the interbrand equipment market constrained Kodak's prices for parts and service. Secondarily, the dissent contended that it was not the business of antitrust to protect consumers against informational deficiencies.[26]

5. *The Irrelevance of Market Information*

In focusing upon market information as the critical issue, the Court committed a significant error.[27] It ignored the impact of its decision on

---

22. 112 S. Ct. at 2077. Justice Blackmun also characterized the ISO evidence as showing that "consumers [have] switched to Kodak service even though they preferred ISO service, that Kodak service was of higher price and lower quality than the preferred ISO service, and that ISOs were driven out of business by Kodak's policies." *Id.* at 2081. Because this apparently anecdotal evidence does not appear to convey information about market conditions generally, the ISOs could not have carried a burden of establishing Kodak's power over parts and service on the basis of that evidence alone. It appears, however, that the Court referred to this evidence in support of its determination to place the burden on Kodak of proving that the aftermarkets are constrained by the primary market. *Id.* at 2088.

23. *Id.* at 2086-87.

24. *Id.* at 2088-89.

25. *Id.* at 2091 (quoting Image Technical Serv., Inc. v. Eastman Kodak Co., 903 F.2d 612, 618 (9th Cir. 1990).

26. *Id.* at 2097-98 (Scalia, J., dissenting).

27. A number of commentaries on the *Eastman Kodak* case have understandably focused attention on market-information issues, as they affect the relations between a primary market and an aftermarket. *See, e.g.*, Joseph Kattan, *Market Power in the Presence of an Installed Base*, 62 ANTITRUST L.J. 1 (1993); Robert H. Lande, *Chicago Takes it on the Chin: Imperfect Information Could Play a Crucial*

product competition and misunderstood the impact of market information upon the market for the tied product (servicing). This Article will show that deficiencies in market information were irrelevant to Kodak's pricing in the service market and, hence, the Court's articulated concern with possible exploitation by Kodak of its service customers was unfounded. Kodak had no incentive to do anything other than to price service at competitive levels, however much (or little) it might exploit its position in parts. And if service is priced competitively, there can be no restraint of the service market and, hence, no antitrust violation. Justice Scalia, in dissent, recognized that even if Kodak possessed power over parts, it would price service competitively.[28] He failed, however, to use this point to establish the irrelevance of the market-information issue, a crucial element of the majority's analysis.

II. THE MANUFACTURE OF A PHYSICALLY DIFFERENTIATED PRODUCT: ANTITRUST RAMIFICATIONS IN THE CONTEXT OF PRODUCT COMPETITION

A. The Antitrust Framework for Approaching Competition in Product Design

1. Competition in Physically Differentiated Products

The free market encourages producers to develop their own respective packages of product characteristics in order to meet the needs and wants of customers more effectively.[29] Every market provides each manufacturer with an incentive to develop a product that will outperform its rivals or will meet the needs of an identifiable market segment in a superior way. In order to meet these needs, equipment manufacturers may have to design nonstandardized products. The result, then, in a market like that for photocopying equipment, is a situation in which each manufacturer sells equipment that is physically differentiated from equipment sold by its rivals.

---

*Role in the Post-*Kodak *World*, 62 ANTITRUST L.J. 193 (1993); Gordon B. Spivack & Carolyn T. Ellis, Kodak: *Enlightened Antitrust Analysis and Traditional Tying Law*, 62 ANTITRUST L.J. 203, 210-12 (1993). Although the extent to that a primary market constrains an aftermarket is an intellectually interesting question, much of the analysis that would apply to the relation between a single primary market and a single aftermarket was legally irrelevant to the *Eastman Kodak* case because, as pointed out in the text, *infra* pp. 1525-27, that case was complicated by a third market segment (i.e., the aftermarket in parts in addition to the primary market in equipment and the aftermarket in service).

28. 112 S. Ct. at 2097 n.2 (Scalia, J., dissenting).

29. *See* Daniel J. Gifford, *The Interplay of Product Definition, Design and Trade Dress*, 75 MINN. L. REV. 769, 774 (1991).

The degree of success attained by any one producer relative to its rivals in satisfying the needs and wants of customers is reflected in the brand premium that its product commands. Indeed, it is the hallmark of a market in which physically differentiated products compete for the favor of buyers that prices vary from brand to brand, the relative "premiums" or discounts reflecting the relative attractiveness of the brands.[30]

2. Product Competition and the Antitrust Laws

When product competition motivates manufacturers to compete in the designs of their products, each producing nonstandard equipment, one necessary result is that purchasers of a particular brand of equipment generally will be dependent upon the manufacturer of that brand for replacement parts.

This dependency of the owners of a particular brand of equipment upon the manufacturer of that brand for parts can be conceptualized in antitrust terms. The manufacturer could be conceived as "tying" parts to equipment by the very act of manufacturing physically differentiated equipment. Or, the manufacturer could be conceived as a monopolist of its own brand of parts, selling to equipment owners who are "locked-in" to that brand by their investment in the equipment and, therefore, are vulnerable to exploitation. Indeed, the claims in the *Eastman Kodak* case were variations of these conceptual approaches.

This Article will show that conceptualizing the relation between the owners of physically differentiated equipment and the manufacturers of that equipment as involving a tying arrangement or monopolization is unsound as an antitrust matter. It will also show that the variations of these conceptual approaches employed by the *Eastman Kodak* majority were similarly unsound. And finally, this unsoundness will be shown to be intimately connected with the underlying role of the antitrust laws in furthering product competition.

3. The Variables in an Antitrust Analysis of Product Competition

The kind of attack upon product competition that was made and countenanced in *Eastman Kodak* is not new.[31] It has been made in the

30. See, e.g., EDWARD H. CHAMBERLIN, THE THEORY OF MONOPOLISTIC COMPETITION 71-116 (5th ed. 1946), for the classic description of this type of marketplace.

31. *See, e.g.*, Parts & Elec. Motors, Inc. v. Sterling Elec., Inc., 866 F.2d 228 (7th Cir. 1988), *cert. denied*, 493 U.S. 847 (1989).

past, with mixed success, in other lock-in type cases.[32] The confusing element in *Eastman Kodak* which facilitated the ISOs' success was the inclusion of a third market segment (as opposed to most lock-in cases which usually involve only two market segments). In *Eastman Kodak*, there were not only sales of equipment and parts, but also of service, all of which were interrelated. As will be shown, it was the added complexity provided by this third market segment (service) that tripped the majority into serious error.

An understanding of the antitrust analysis appropriate to the product competition context is assisted by an identification of the principal factors that have arisen in the analyses of such cases. These include the so-called lock-in effect; the primary market as a constraint upon the aftermarket; the impact of buyer ignorance upon the operation of that constraint and the possibility of price discrimination (which was the analytical contribution of

---

32. The lock-in analysis has received a mixed reception in the courts. In a few cases, purchases of a physically differentiated product have been held to constitute a separate market for supplies, parts, or equipment that are physically compatible only with that product. *See id.*; Digidyne Corp. v. Data Gen. Corp., 734 F.2d 1336 (9th Cir. 1984), *cert. denied*, 473 U.S. 908 (1985); Heatransfer Corp. v. Volkswagenwerk, A.G., 553 F.2d 964 (5th Cir. 1977), *cert. denied*, 434 U.S. 1087 (1978). These rulings have been supported at least implicitly by the lock-in analysis. In other cases, however, plaintiffs relying on the lock-in approach have been unsuccessful, often because essential elements of proof were missing. *See* Service & Training, Inc. v. Data Gen. Corp., 963 F.2d 680 (4th Cir. 1992) (no evidence of concerted activity); International Logistics Group, Ltd. v. Chrysler Corp., 884 F.2d 904 (1989) (no power in tying product market); Spectrofuge Corp. v. Beckman Instruments, Inc., 575 F.2d 256 (5th Cir. 1978), *cert. denied*, 440 U.S. 939 (1979) (no separable market in servicing; no concerted activity); Kaplan v. Burroughs Corp., 611 F.2d 286 (9th Cir. 1979), *cert. denied*, 447 U.S. 924 (1980) (flawed lock-in analysis).

In General Business Systems v. North American Philips Corp., 699 F.2d 965 (9th Cir. 1983), the court accepted the contention (similar to that asserted by Kodak) that the prices in the aftermarket had a direct effect on prices in the primary market, but the court concentrated primarily on the potential entry of rival manufacturers into the aftermarket as controlling the defendant's power in the aftermarket. *Id.* at 975. Dimidowich v. Bell & Howell, 803 F.2d 1473 (9th Cir. 1986), resembled the *Eastman Kodak* case insofar as a manufacturer of equipment refused to make parts available to an independent servicing organization competing with the manufacturer's servicing. Similar to the *Eastman Kodak* decision, the court there held that the manufacturer's behavior would be subject to rule-of-reason evaluation but that a trial was necessary to test the legitimacy of the manufacturer's asserted business justification. *Id.* at 1483. Service & Training, Inc. v. Data General Corp., 963 F.2d 680 (4th Cir. 1992), another case involving facts similar to those of *Eastman Kodak*, took the view that the defendant's behavior did not constitute a tie. *See supra* note 7. In Tarrant Service Agency, Inc. v. American Standard, Inc., 12 F.3d 609 (6th Cir. 1993), *cert. denied*, 114 S. Ct. 2709 (1994), the Sixth Circuit rejected a monopolization claim based upon an equipment manufacturer's unwillingness to sell the plaintiff replacement parts, but in that case so-called interchangeable "duplicator" parts were manufactured by independent suppliers. *Id.* at 613-15. In another case, however, that circuit felt compelled by the *Eastman Kodak* decision to reverse itself and to order a new trial on a lock-in theory. Virtual Maintenance, Inc. v. Prime Computer, Inc., 11 F.3d 660, 664-67 (6th Cir. 1993), *cert. dismissed*, 114 S. Ct. 2700 (1994).

the *Eastman Kodak* majority); and the distribution of a brand premium between the primary and aftermarkets.

(a) The Lock-In Effect

In a market in which rival manufacturers compete with physically differentiated products, customers are generally dependent upon the manufacturer of equipment which they have previously purchased for replacement parts.[33] Because the design of equipment sold under each brand is different from the design of rival brands, replacement parts that fit one brand of equipment generally will not fit another brand. This dependence of customers upon the manufacturer is measured by the customers' "sunk costs": they cannot switch brands without losing their investment in the equipment. They are locked-in to the same brand for replacement parts. It was this lock-in phenomenon which underlay the majority's decision in *Eastman Kodak.*

This lock-in phenomenon is common to products or equipment for many kinds of uses. Persons who use Macintosh computers, for example, are locked-in to the Apple operating system for software. Children who play with Lionel trains are locked-in to that brand when they wish to add additional equipment. Indeed, even a householder who has acquired several sets of a certain pattern of china, say Wedgwood, is locked-in to that brand when one or more additional place settings are needed.

(b) The Primary Market as a Protection Against Exploitation of Locked-In Customers

The economic analysis of the lock-in phenomenon confirms a common sense understanding of the situation. The householders who need an additional place setting of china are not at the mercy of the Wedgwood Company. True, in order to shift to another supplier, the householders would have to abandon their sunk investment in their existing Wedgwood place settings and purchase duplicates from the new supplier. In order to avoid that costly alternative, the householders may be willing, if necessary, to pay a hefty premium to the Wedgwood Company. That situation does not arise, however, because the Wedgwood Company's market is primarily new buyers who do have realistic alternatives. The Wedgwood Company

33. For some products in which the aftermarket is sufficiently large (as in the automobile industry), independent manufacturers may offer an alternative source of supply of replacement parts. *See, e.g.*, *In re* Borg-Warner Corp., 101 F.T.C. 863, 876-79 (1983).

must price its china in a range relative to the prices of rival brands of fine china. Its prices will reflect the premium commanded by its superior quality, but no more than that amount. While the householders may have been willing to pay $600 for a place setting, they will be able to purchase a place setting for only $200 because it is at that price level that the Wedgwood Company maximizes its profits in the market for sales to new buyers, where its products must compete with those of rival sellers.

In the example of the Wedgwood china, it is clear that competition in the market for sales to new buyers protects the prior owner who wishes to add (or replace) a place setting. A person who acquires a piece of equipment that later needs repair is in a slightly different circumstance. Here, the original equipment is sold in the market to new buyers, whereas replacement parts are sold in the market to locked-in prior owners. Common sense suggests that when buyers become aware that replacement-part cost for any brand of equipment appears to be substantial and out of line with the comparable costs for competing brands, they will factor the cost of replacement parts into the purchase price: they will tend to adjust upwards the nominal purchase price of a brand whose parts prices are unduly high. Economists would say that the expected cost of replacement parts is a part of the total cost incurred in acquiring any particular brand. Buyers add the costs of replacement parts (properly discounted to present value and for the probabilities of needing them) to the sales price when they compare one brand with its rivals.

(c) Buyer Ignorance and Price Discrimination

The extent to which the primary market constrains pricing in the aftermarket depends, as Justice Blackmun suggested, upon the degree of market information available to buyers.[34] The primary market will not reflect conditions in the aftermarkets if buyers in the primary market are ignorant about the aftermarkets. Justice Blackmun, however, was making a more complex statement than just that impediments may exist to the communication of market information. Rather, he was stating that Kodak discriminated in its pricing and that the discrimination was facilitated by the ignorance of the disfavored buyers. The result of the discrimination, according to Justice Blackmun's hypothesis, was that there were, in effect, two primary markets: one in which well-informed buyers paid reduced prices for equipment, the reduced prices reflecting abnormally high

34. *Eastman Kodak*, 112 S. Ct. at 2085-87.

aftermarket prices for brand-specific replacement parts or service; and a second primary market in which uninformed buyers paid higher prices for equipment, the higher prices being insulated from the depressing effect of the high prices in the aftermarkets, which were unknown to these buyers.

The combination of buyer ignorance and price discrimination suggested by Justice Blackmun is unlikely where a primary market in high-cost equipment is operating competitively. Indeed, it is precisely in markets where buyers invest substantial amounts that they are most likely to seek out relevant information, and it is in competitive markets where rival firms have an incentive to discover and to disseminate such unfavorable information. It is also questionable to assume that the business purchasers of expensive high-volume copiers and micrographics equipment would be ignorant about prices for servicing.[35] Yet, it is not necessary to quarrel with Justice Blackmun's market-information hypothesis to establish the flawed nature of the *Eastman Kodak* decision. The problem posed by Justice Blackmun—the exploitation of the dependence of locked-in buyers—is shown below not to constitute an antitrust problem.

(d) Distribution of Brand Premiums Between the Primary and Aftermarkets

Producers of product lines which, because of their superior reputation, command significant premiums may very well decide to distribute their brand premiums between the original equipment markets and the aftermarkets. The result in such cases is that prices are likely to exceed marginal cost by some amount in both the primary and aftermarkets. The producers would examine the cross-elasticities of the demands in the two markets and adjust their respective prices to their optimum levels. In so exploiting their brand premiums, these producers would not be exercising anything remotely like market power[36] and, for the reasons developed

35. These customers must have been aware of aftermarket and servicing charges, as they bear these charges repeatedly on their other equipment. Any difference in pricing by Kodak is more likely to reflect the bargaining positions of different customer groupings than customer ignorance.

36. It is true that in Fortner Enterprises, Inc. v. United States Steel Corp., 394 U.S. 495, 503-04 (1969) (*Fortner I*) and United States v. Loew's, Inc., 371 U.S. 38, 45 (1962), the Court equated the market power requisite to trigger the per se tying rule with product desirability and defined this desirability in a way that is remarkably similar to the brand premium commanded by any product with a superior reputation. That approach was abandoned in *Fortner II*, however, when the Court indicated that the power that would trigger the per se rule resided in the seller's possession of some economic advantage unavailable to competing sellers. United States Steel Corp. v. Fortner Enters., 429 U.S. 610 (1977). The Court's further ruling, in Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2, 26-27

below, could not be involved in a violation of the antitrust laws.

The distribution of part or all of a brand premium to the aftermarket may appear to the naïve as exploitation of buyers in the aftermarket. Indeed, this apparent exploitation may be perceived as monopolization or the leveraging of the power of a tying product. Yet, the allocation of part of a brand premium to the aftermarket is fully consistent with competitive conditions in the primary market and with the complete interaction of the primary and aftermarkets.

B. *Equipment Design and the Antitrust Laws: The Concept of a Tie of Parts to Equipment Resulting from Product Design*

It is conceptually possible to argue that a producer ties parts to equipment merely by manufacturing equipment which is designed differently from its rivals and therefore requires nonstandard replacement parts. The antitrust laws, however, have generally ignored any tie arising from the sale of parts in the aftermarket by a seller of physically differentiated equipment, probably because it is impossible to eliminate such a tie without requiring that all equipment be of a standardized design. Imposing such a requirement would involve the courts in suppressing the very creativity that lies at the core of a competitive marketplace.

Let me add that the creativity which the law—and particularly the antitrust law in its role as guardian of competition in product design—values includes that of a manufacturer whose product occupies thirty percent or more of the relevant market—a share probably sufficient to raise an inference of market power for purposes of establishing a per se tying violation.[37] Indeed, the larger the market share, the more the producer

(1984), that a 30% market share was insufficient evidence of the requisite power confirmed the retreat from the approach followed in *Fortner I*.

Of overriding importance, moreover, is the obvious purpose of antitrust law to stimulate competition in the development of new products. The desirability of this stimulus is confirmed by trademark law, *see* 15 U.S.C. §§ 1051-1127 (1988 & Supp. 1994), which ensures that a producer is able to identify its particular version of a product class to customers, thus facilitating competition in differentiated products.

37. Less than a 30% market share was deemed insufficient to raise an inference of the market power requisite to invoke the per se rule in *Jefferson Parish*, 466 U.S. at 26-27 & n.43. In its now repealed Vertical Restraints Guidelines, the Department of Justice employed the 30% figure as the maximum safe-harbor share. U.S. DEP'T OF JUSTICE, VERTICAL RESTRAINTS GUIDELINES § 5.3, *reprinted in* 50 Fed. Reg. 6263, 6272 (1985). These guidelines were repealed in 1993. Anne K. Bingaman, Assistant Attorney General, Speech to the American Bar Association Antitrust Section, Aug. 10, 1993, *reprinted in* 65 Antitrust & Trade Reg. Rep. (BNA) 250 (1993). See also the discussion of the market-power requirement in Will v. Comprehensive Accounting Corp., 776 F.2d 665, 672 (7th Cir. 1985), *cert. denied*, 475 U.S. 1129 (1986).

objectively demonstrates the value of its product and, implicitly, the creativity behind it. To treat the sale of nonstandard parts by the manufacturer of physically differentiated equipment as a tie in an antitrust sense, would be to cap the market shares of all manufacturers of nonstandard equipment at something less than thirty percent, unless independent manufacturers had entered the arena to offer alternative sources of supply. Such a result would be, I suggest, untenable.

When the antitrust laws exclude from their cognizance the tie (of parts to equipment) that results when nonstandard equipment is marketed, they necessarily deny protection against supplier exploitation of the purchasers of the nonstandard equipment who are locked-in to that supplier for spare parts. Thus protection is denied in what is perhaps the paradigm lock-in case involving parts. The denial of protection to locked-in owners is absolute: this is not just a case in which the per se rule is inapplicable and the customers are relegated to the difficult task of constructing a case under the rule of reason. Rules of proof are irrelevant here because there is substantively no offense. In this case a successful tying claim would conflict with the basic goals of the antitrust laws and therefore cannot be recognized at all. Since the antitrust laws must ignore a tie of parts to equipment resulting from the nonstandard design of the equipment, sellers of differentiated products are (and always have been) free to allocate a brand premium between the equipment market and the parts market.

In addition to the overriding point that no relief against a lock-in is practical without jeopardizing socially desirable creativity in product design, several other considerations support the denial of such relief. First, the impossibility of relief against the tie between parts and equipment resulting from the production of nonstandard equipment strongly suggests that the equipment and parts should be viewed as a single product. Second, the production of physically differentiated equipment does not, in itself, preclude independent manufacturers from making compatible replacement parts, so the primary concern of the antitrust prohibitions against tying—exclusion of rivals from the market—is absent. Third, when market information is readily available, the buyers are not exposed to the unchecked power of the supplier because the supplier's price on parts is constrained by competition in the interbrand equipment market. And in most situations, it would be unlikely that sellers could impose substantially burdensome terms upon buyers in the aftermarket without affecting the primary market. Finally, because all equipment buyers are necessarily aware that at some future dates they will require replacement parts at unspecified future prices, they must have implicitly contemplated and accepted aftermarket prices within a wide range of reasonableness when they purchased the equipment.

C. *Equipment Design and the Antitrust Laws: Tying Service to Equipment*

As shown above, the conceptualization of the provision of parts by manufacturers of physically differentiated products as tying arrangements creates a substantial danger that the antitrust laws will erode the stimulus to innovation which the competitive market engenders. That is why such a conception is unsound and at odds with antitrust policy.

Does a manufacturer of nonstandard equipment engage in an unlawful tying arrangement by tying service to equipment? For policy reasons which are set forth below, the answer ought to be "no." The answer under existing law is more complex. The clearest issue (and one that sheds some light on the situation in *Eastman Kodak*) is that a manufacturer who lacks market power cannot violate the per se rule by tying service to equipment.

Justice Scalia, in his *Eastman Kodak* dissent, discussed a tie between service and equipment,[38] although his insightful discussion of this tie was nevertheless incomplete. Under Scalia's interpretation of existing precedent, a tie between service and equipment would arise in a situation in which an equipment manufacturer sold the equipment on the condition that the purchasers agree to use only the manufacturer's service organization for maintenance and repair. It would also arise when the purchasers were provided a lifetime service contract with the purchase of equipment. Justice Scalia observed that absent power in the interbrand equipment market, no per se case would be made out for tying service to equipment.[39] He did not explicitly point out, however, ways in which a tie between service and equipment is different from a tie between service and parts. In the tie of service to equipment (but not necessarily in the tie of service to parts) the equipment buyers would be aware of the tie of services to equipment at the time of purchase.[40] In the case in which the service contract was incorporated in the equipment sale, competition in the interbrand equipment market would constrain the total price which the seller could charge. It is the other case—where the buyer merely undertook an obligation to purchase services

38. 112 S. Ct. at 2095.

39. *Id.* (citing *Jefferson Parish*, 466 U.S. at 13-14; *Fortner II*, 429 U.S. at 620; Northern Pac. R. Co. v. United States, 356 U.S. 1, 6-7 (1958)).

40. It is this awareness which defines the tie as between the equipment being purchased (the tying product) and the service (the tied product).

from the seller—which is closest to the *Eastman Kodak* facts. Here, as in *Eastman Kodak*, some buyers might not be informed about the seller's charges in the servicing market, and all buyers would be vulnerable to (necessarily indeterminate) future price changes in the servicing market. Yet, as Scalia pointed out, even in this case the per se tying rule would not apply when the tying product was the equipment.[41] Does an equipment manufacturer violate the rule of reason by tying service to equipment? Unless the manufacturer possesses market power, the answer is probably not.[42]

D. Equipment Design and the Antitrust Laws: Tying Service to Parts

Now it is time to face the question raised in the *Eastman Kodak* case: does a manufacturer of nonstandard equipment violate the prohibition against tying by refusing to sell parts to independent servicing organizations? This question deserves a negative answer under both the per se rule and the rule of reason. Whether or not an equipment manufacturer violates the per se rule by tying service to parts depends upon whether the manufacturer can exercise power over parts to impose a restraint on the service market. Whether such a manufacturer violates the rule of reason depends upon whether its behavior restricts output in the service market. The *Eastman Kodak* majority assumed that Kodak demonstrated its power in the Kodak-brand parts market by inflating the price of service. It is argued below that this was a flawed approach to the problem, because an equipment manufacturer selling service has no incentive to inflate the price of service. Rather, even assuming that the equipment manufacturer possesses monopoly power over parts, the final price to the customer for servicing will be equivalent to the combination of a monopoly price for parts and a competitive price for the remainder of the service.[43] Therefore, output in the service market will not be restricted. The conclusion is that a tying violation cannot be legitimately established under either the per se rule or the rule of reason.

---

41. 112 S. Ct. at 2095. The per se rule would not apply because the context makes clear that the tying product was the equipment, over which Kodak lacked the requisite power.

42. A violation of the rule of reason requires an appreciable restraint in the market for the tied product. In order to tie service to equipment, the tie would have to be arranged at the time of the sale of the equipment when the manufacturer would lack power to impose such a restraint.

43. In the situation described, the parts manufacturer could prevent the substitution of service for parts in those cases in which partial substitution was possible, thereby more fully exploiting whatever power it posses in parts.

1. Ties in Fixed Proportions

Those who follow tying analysis understand that the supposed tie between parts and service is one that fits the description of a tie in "fixed proportions." The customer who needs the part needs it in conjunction with service. Any power over servicing that control over parts provides is limited to those situations in which parts are needed for servicing. Power does not exist over servicing that does not require parts. The asserted "tie" thus appears to involve close to a one-to-one relationship between parts and service. It is commonly accepted at this point that a tie in a fixed-proportions context (i.e., where the tying and tied inputs are employed in fixed proportions) cannot extend a seller's power over the tying product (parts) into the market for the tied product (service).[44] Ward Bowman established that point in the 1950s, and it is widely recognized today.[45]

---

44. The contention that the *Eastman Kodak* case may be a variable-proportions case appears spurious. The argument would be that service can substitute, to some extent, for parts, as when extra maintenance would prolong the life of parts, thus decreasing the number of parts purchased. To the extent that service is a partial substitute for parts, that substitutability reduces Kodak's power over parts.

In the typical variable-proportions context, an input monopolist integrates forward into the final product to prevent the final product producer from substituting away from the monopolized input. Two effects result from this forward integration: the monopoly power of the input monopolist is increased because it no longer is constrained by the partial substitution of the other input (a negative welfare effect); and inefficient substitution is eliminated (a positive welfare effect). The analogy here is that Kodak would integrate into servicing to prevent ISOs from substituting service for parts. The problem with that analogy, however, is that Kodak cannot prevent ISOs from substituting service for parts because equipment owners are free to use ISOs for all servicing which does not require replacing parts.

Consequently, the possibility of applying the variable-proportions analysis here is reduced to the following contention: equipment owners do not know beforehand whether their equipment needs parts. They therefore hire Kodak servicing organizations to do all their servicing and these organizations make sure that service is not substituted for parts. In reflecting upon the persuasiveness of such a claim, the reader should consider the extent to which such substitution appears a priori possible and note that (even if possible) the enhanced monopoly power of the input provider (Kodak) is partially offset by the welfare enhancement resulting from removing the inefficient substitution of service for parts. Finally, even if *Eastman Kodak* is analyzed as a variable-proportions case, the welfare effects of variable-proportions cases are, in general, indeterminate. Therefore, it would be inappropriate to apply a per se rule to a tie in such a context. *See* ROGER D. BLAIR & DAVID L. KASERMAN, LAW AND ECONOMICS OF VERTICAL INTEGRATION AND CONTROL 168 (1983).

45. Ward S. Bowman, Jr., *Tying Arrangements and the Leverage Problem*, 67 YALE L.J. 19, 22-23 (1957). *See also* BLAIR & KASERMAN, *supra* note 44, at 28. Justice Scalia pointed out in a footnote that the tie appeared to be in fixed proportions and that such a tie would not have exploited customers in the service market. *Eastman Kodak*, 112 S. Ct. at 2097 n.2 (Scalia, J., dissenting). *See also* Hay, *supra* note 21, at 189 & n.37.

2. *The Lessons from Vertical Analysis*

The fixed-proportions analysis has been applied by the courts in the vertical distribution context where the upstream input producer possessed market power. In cases such as *Paschall v. Kansas City Star*,[46] the courts followed the prevailing economic analysis which posits that the power of the input supplier is exhausted in marketing the input.[47] An input supplier's determination to switch from one final product producer to another does not increase the power of an input supplier at all. Indeed, a sale by a monopoly input supplier to a monopoly output producer produces less profit to the input supplier than would the sale by that supplier to output producers operating competitively. In this situation, the ultimate market restriction on the final product is lessened when the monopoly input supplier vertically integrates with the monopoly output producer. Stated another way, a monopoly input producer maximizes its profits and power when it sells its input at a monopoly price to competitively operating output producers. Thus a monopoly input supplier who integrates into final product production has an incentive to charge no more for the final product than an amount equal to the monopoly price of the input plus a competitive price for the final product.

Thus prior antitrust case law—as well as economic theory—teaches that Kodak would maximize whatever "monopoly" power it possesses over locked-in owners by charging monopoly prices for parts. Kodak stands to gain no more in revenue from seizing control of the business of servicing Kodak machines. Accordingly, there appears to be a reason other than revenue-maximization why Kodak took over the servicing of its machines. I say "appears," because I will identify below a revenue-generating reason that might explain Kodak's behavior, but that has little, if anything, to do

46. 727 F.2d 692, 701-04 (8th Cir.), *cert. denied*, 469 U.S. 872 (1984).

47. *See* BLAIR & KASERMAN, *supra* note 44, at 31-36; M.L. Greenhut & H. Ohta, *Related Market Conditions and Interindustrial Mergers*, 66 AM. ECON. REV. 267 (1976); John R. Haring & David L. Kaserman, *Related Market Conditions and Interindustrial Mergers: Comment*, 68 AM. ECON. REV. 225 (1978); M.L. Greenhut & H. Ohta, *Related Market Conditions and Interindustrial Mergers: Reply*, 68 AM. ECON. REV. 228 (1978); EUGENE M. SINGER, ANTITRUST ECONOMICS 209-11 (1968); Richard S. Markovits, *Tie-ins, Reciprocity, and the Leverage Theory*, 76 YALE L.J. 1397, 1402 (1967); R.G.D. ALLEN, MATHEMATICAL ANALYSIS FOR ECONOMISTS 381 (1938). Professor Hovenkamp provides an illustration of a firm which moves from selling only jars under its patent to selling jars and lids as a package, and shows how the firm maximizes its profits by selling the package at an amount equal to the monopoly price for the jar plus a competitive price for the lid. HERBERT HOVENKAMP, ECONOMICS AND FEDERAL ANTITRUST LAW § 8.4 (1985). On forward integration, see also DANIEL J. GIFFORD & LEO J. RASKIND, CASES AND MATERIALS ON FEDERAL ANTITRUST LAW 150-53 (1983).

with monopoly or monopoly power. As I point out below, however, the most likely explanation for Kodak's behavior is not a revenue-related reason at all, but a desire by Kodak to control servicing because of servicing's potential for affecting the reputation of Kodak's brand of equipment.

E. Product Competition and the Monopolization Offense

Much of the analysis applicable to the relation of tying to product competition also applies to the relation of the monopolization offense to product competition. Thus, a manufacturer of nonstandard equipment cannot be found to have monopolized merely because equipment purchasers become dependent upon the manufacturer for replacement parts. As explained above, a contrary ruling would severely impair the incentive to innovate. Again analogous to the tying context, a manufacturer of nonstandard equipment could not be found to have monopolized by conditioning the sale of equipment to service unless it possesses power in the interbrand equipment market.

To what extent ought the monopolization clause be implicated by the refusal of a manufacturer of nonstandard equipment to sell parts to competitors in the service market? The Court in *Eastman Kodak* indicated that whether the monopolization clause is triggered depends upon whether the manufacturer possesses a valid "business justification" for its refusal.[48] One ground claimed by Kodak was the protection of the reputation of its brand of equipment from unfounded charges of equipment malfunction by incompetent servicing organizations,[49] and the Court majority appeared to accept such a justification, provided that Kodak proved its validity at trial.

As argued below, placing the burden upon an equipment manufacturer to prove such a justification at trial is a mistake. True, placing such a burden on a manufacturer in Kodak's position follows the procedural format outlined in *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*,[50]

48. 112 S. Ct. at 2091. A related issue is whether a manufacturer like Kodak could be held to have attempted to monopolize the market for servicing Kodak-brand equipment as a result of its refusal to sell parts to independent servicing organizations. Of course, if competition in the equipment market sufficiently constrains the aftermarkets, the possibility of monopolization is eliminated and there can be no attempted monopolization. But even if it is assumed that the equipment market does not constrain the service aftermarket, it appears that no finding of attempted monopolization of the service market would be possible to the extent that Kodak is successful in establishing a business justification for its behavior.

49. 112 S. Ct. at 2091.

50. 472 U.S. 585, 608-11 (1985).

where a monopolist was required to justify its refusal to do business with a rival. Yet, in the *Eastman Kodak* context, this procedural format ensures that a manufacturer who wishes to provide exclusive service to its own brand of equipment is forced to incur the risks and expense of trial, and thus penalizes a course of apparently efficient behavior.[51] Moreover, the manufacturer's power and incentive to exploit the service market are constrained: first, by the prima facie impact that supracompetitive pricing in the service market would exert upon prices in the primary interbrand equipment market (as Kodak maintained); and, second, by the fact that whatever power that manufacturer possesses over parts is exhausted in the sale of the parts.

Given the actual or likely constraints upon exploitation of the service market, the obvious reasons that an equipment manufacturer would wish to guard its reputation, and the paucity of evidence that the plaintiff ISOs mustered in opposition,[52] the Court ought to have imposed a higher threshold upon plaintiffs opposing summary judgment. In other antitrust cases, the Court has imposed high standards of proof upon plaintiffs when it questioned the economic plausibility of their cases.[53] The economic plausibility of the case of the ISOs was questionable, and a higher standard ought to have been imposed.

III. THE REASONS WHY KODAK OR OTHER MANUFACTURERS OF NONSTANDARD EQUIPMENT MIGHT WISH TO PROVIDE EXCLUSIVE SERVICE TO THEIR EQUIPMENT

As critics of the antitrust case law involving tying arrangements have long pointed out, tying arrangements often have legitimate—indeed, procompetitive—purposes. Kodak, like other manufacturers who have employed tying arrangements, probably was motivated by goals that were either innocuous or procompetitive when it decided to make parts available only to owners and to Kodak servicing organizations.

---

51. As explained below, the most likely reason that such a manufacturer would wish to service its own brand exclusively is to ensure quality servicing and to protect the reputation of the brand. *See infra* pp. 1530-31.

52. The ISOs presented evidence that "ISOs provide quality service" and that some equipment owners prefer ISO service. 112 S. Ct. at 2091. This evidence does not appear to be inconsistent with Kodak's asserted concern to avoid injury to the reputation of its equipment resulting from ISOs attributing equipment malfunctions to deficiencies in the equipment.

53. Brooke Group Ltd. v. Brown & Williamson Tobacco Corp., 113 S. Ct. 2578, 2595-98 (1993); Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 587, 596-97 (1986).

A. Enhancement of Quality and Reputation

Kodak's decision not to sell parts to the ISOs probably was motivated by Kodak's desire to ensure that its copiers were properly serviced, thereby ensuring that the equipment's reputation was not adversely affected as a result of servicing by untrained or unqualified personnel. Indeed, Kodak asserted such a reason as a "business justification" in defense of the monopolization charge.[54] Such a motivation is a classic reason for tying and one which the courts have had great trouble accepting.[55] The majority expressed doubt about Kodak's explanation because Kodak was willing to sell parts to owners who performed their own repairs and maintenance.[56] But the mere fact that Kodak was willing to allow an exception for owners does not prove that it was not concerned about ensuring quality servicing. Owners who performed their own servicing might, on the average, be larger operations than owners who used independent servicing organizations. Accordingly, their larger size would mean that they could support in-house servicing organizations that were focused upon their own equipment. Moreover, in such cases problems with the performance or lack of performance of Kodak-brand equipment could be examined by the owner directly, rather than through an independent organization that would have an incentive to blame the equipment for poor performance actually caused by inadequate servicing.

In employing its servicing tie in order to protect the reputation of its brand of equipment, Kodak was actually on stronger case law ground than the majority opinion recognized. The courts have repeatedly faced the contention that it was necessary for the seller of equipment to tie supplies (or another tied product) to equipment in order to protect the equipment's reputation. The tie guards against inferior supplies, so the argument runs, which might cause the equipment to break down and thereby tarnish its reputation. The standard judicial response to this claim has always been that a less restrictive alternative is available: specifying quality standards for supplies.[57] Only when it is impractical to specify such standards does the need for a tie become plausible. Servicing is a kind of product that eludes

54. *Eastman Kodak*, 112 S. Ct. at 2091.

55. *See infra* text accompanying notes 57-58.

56. The majority dealt with this matter in the part of its opinion addressing the section 2 issues. 112 S. Ct. at 2091.

57. International Business Mach. Corp. v. United States, 298 U.S. 131, 139-40 (1936).

specification. Indeed, in the well-known *Jerrold Electronics*[58] case, it was precisely the impracticality of specifying quality standards for service that led the Court to accept as legitimate the tie of servicing to the sale of community television antennae, even when otherwise the facts met the requirements of the per se rule.

As established in the last section, Kodak would not gain anything in revenue from integrating forward into the servicing market. It was already the sole supplier of nonstandard replacement parts for Kodak-brand equipment, and whatever market power Kodak held over owners of Kodak-brand equipment was fully exercisable in the sale of parts. After charging what the market would bear for its parts in its role as parts supplier, its incentive as a servicer would be to hold service prices at competitive levels.

B. A Retroactive Brand Premium?

For the reasons explained above, Kodak probably sought to control servicing in order to enhance the reputation of its brand of equipment. And for reasons already stated, Kodak would not exploit the servicing market by charging more than a competitive price for servicing. Kodak would, however, have an incentive to exploit whatever power it might possess over parts. The exploitation of its power over parts might show up in the total bill for servicing, but the servicing bill should not exceed the total of the parts price plus a competitive price for service. If Kodak had power in the Kodak-brand parts market, the assertions by the ISOs that Kodak's servicing prices were high compared to ISO servicing prices might be explained by a high parts-charge component of the servicing bills. Yet, Kodak's power in the Kodak-brand parts market should have been constrained by competition in the interbrand equipment market. Is it likely that, as suggested in the majority opinion, Kodak was able to avoid the constraint of the interbrand equipment market as a result of impediments to information transmission? If not, then as argued below, the burden should have fallen on the ISOs to prove that Kodak's pricing behavior was unconstrained.

It is possible that even if the service market was constrained by the interbrand equipment market, Kodak nonetheless possessed some leeway to generate revenue through aftermarket sales. In such a circumstance, Kodak might have sold its parts at a premium over the prices of compar-

58. United States v. Jerrold Elec. Corp., 187 F. Supp. 545 (E.D. Pa. 1960), *aff'd per curiam*, 365 U.S. 567 (1961).

able parts for other brands. In context, that would mean that Kodak's charges for servicing would reflect a relatively high parts-charge component. Such a higher parts-charge component would merely be Kodak's way of distributing the competitive price for its equipment between the actual equipment and the replacement aftermarket, an allocation discussed above. Moreover, as pointed out below, a premium allocated to parts might be a way of charging a retroactive brand premium to buyers. I argue here that neither this ability to charge premium prices for parts nor its exercise constitute matters of antitrust concern.

Suppose that when Kodak first placed its copiers on the market, the market did not appreciate fully the quality of this brand of equipment—that it took a number of years for the reputation of Kodak-brand equipment to rise to its present level. As the reputation of the Kodak-brand equipment rose, Kodak would be able to increase its price vis-à-vis rival equipment, the premium for the Kodak-brand equipment reflecting its superior quality. Let us consider for a moment the means available to Kodak to increase the price of its equipment vis-à-vis rival equipment. The normal way in which firms reflect the superior reputation of their product is to increase the price of the product directly. However, this method captures the quality/reputation premium only prospectively: it is only new purchasers who incur this premium. An alternative way to raise price would be to raise the price on parts or on the parts component of servicing (when the servicing was performed by the equipment manufacturer). If Kodak controlled the servicing market through its control of parts, Kodak would have been able to raise the price of the parts component of servicing to reflect the enhanced reputation of its brand of equipment. This increase would necessarily raise the effective price of the equipment but, in the case supposed, would not have been a deterrent to raising the price of the parts component of servicing, because increasing that price would have been only a means of carrying out an intended increase in price for the equipment.

In short, in a market composed of differentiated products, the price of any particular brand reflects not only the overall relation between aggregate demand and supply for all product variations taken together, but also the particular premium or discount commanded by that brand's particular variation. The premium (in relation to the market as a whole) rises or falls with the brand's reputation. Allocating some of the brand premium to parts (or the parts component of service) enables the equipment seller to extract an enhanced brand premium not only from new buyers but from old buyers as well; in effect, this allocation enables the seller to extract a retroactive brand premium.

The case does not demonstrate whether Kodak was attempting to enhance its revenues in the manner described. If Kodak did so, it was merely collecting a premium merited by the superior reputation of its brand of equipment.

IV. AN ENLIGHTENED APPROACH TO PRESUMPTIONS IN ANTITRUST CASES

In addition to its unsettling effect on product competition generally, the *Eastman Kodak* decision exacerbates the threat to product competition through its use of presumptions.

Because Kodak had nothing to gain by charging supracompetitive prices for servicing, Kodak must have had some other reason for the tie of service to parts. I have already pointed out the most plausible reason: to prevent the ISOs from falsely attributing equipment malfunctions to equipment quality rather than to inadequate service. Since there is no apparent anticompetitive reason for the tie and there is a plausible procompetitive reason for that tie, the Court should have presumed that the tie was procompetitive or efficiency enhancing. The plaintiffs, who asserted that the tie produced anticompetitive effects, would then be put to their proof. If they could muster proof that the tie reduced output, they would be entitled to go to trial. If, as is likely, they would be unable to muster substantial proof of such a result, the case could have been dismissed. Subjecting business firms to costly litigation over practices which appear, on the surface, to be efficiency enhancing when there is no substantial evidence to the contrary is patently in conflict with the core purposes of the antitrust laws. Surely presumptions ought to further the efficient and accurate disposition of cases.[59]

According to the Court's own carefully articulated criteria for summary judgment worked out in *Celotex Corp. v. Catrett*,[60] *Anderson v. Liberty Lobby, Inc.*,[61] and *Matsushita Electric Industrial Co. v. Zenith Radio Corp.*,[62] the party bearing the burden of proof is vulnerable to a motion for summary judgment if it cannot make a showing that it will be able to

59. Compare USM Corp. v. SPS Technologies, Inc., 694 F.2d 505, 511 (7th Cir. 1982), *cert. denied*, 462 U.S. 1107 (1983), where, in the case of a patentee without market power, Judge Posner suggested that the burden of proof ought to be borne by the party whose position was the less probable one.

60. 477 U.S. 317 (1986).

61. 477 U.S. 242 (1986).

62. 475 U.S. 574 (1986).

present sufficient evidence at trial to sustain a jury verdict in its favor. *Anderson* made clear that the sufficiency of that evidence is to be tested by the standard of proof which that party must meet at trial.[63] And *Matsushita* held that a requirement of economic plausibility is to be read into the standard of proof in antitrust trials.[64] In the instant case, the ISOs—like plaintiffs generally—bore the burden of persuasion on the issue of a law violation by the defendant. Under current law, the plaintiffs were entitled to prove that law violation by utilizing the per se rule governing ties if they could bring themselves within the rule's coverage. On the latter issue, the plaintiffs bore the burden of persuasion. To do so, the plaintiffs had to prove the defendant's power in the tying-product market. That, in turn, required proof of a market for the tying product. Proof of a separate Kodak-brand parts market and power in that market was also crucial to the plaintiff's monopolization claim.

The critical issue, then, was whether there could be a separate market for Kodak-brand parts. On that issue the ISOs should have borne the burden of persuasion. When the Court ruled against Kodak on the summary judgment issue, the Court was indicating that the ISOs possessed sufficient evidence to sustain a jury determination that an economically significant market existed in Kodak-brand parts, separate from the interbrand equipment market. Yet, the opinion is remarkably unclear on the evidence that the ISOs brought forward on that issue. Justice Blackmun's majority opinion suggests that evidence of increased prices and excluded competition in service would be adequate to support a jury determination of a separate market in Kodak-brand parts.[65] The excluded competition in service, of course, is conclusory. It refers to the Kodak policy of selling Kodak-brand parts only to owners. The high prices in service factor to which his opinion makes reference is meaningful only in relation to ISO prices for servicing Kodak-brand equipment, and then only in a situation in which the ISOs'

---

63. 477 U.S. at 252.

64. 475 U.S. at 587, 596-97. *See also* Brooke Group Ltd. v. Brown & Williamson Tobacco Corp., 113 S. Ct. 2578, 2598 (1993).

65. Justice Blackmun stated: "It is clearly reasonable to infer that Kodak has market power to raise prices and drive out competition in the aftermarkets, since respondents offer direct evidence that Kodak did so." 112 S. Ct. at 2088.

As previously observed, the Court addressed the issue of a brand-specific market more directly in the part of its opinion discussing the alleged section 2 violation. *See* 112 S. Ct. at 2090 & n.31. In that section of its opinion, the majority conceded that market definition presents a factual issue but relied upon the physical uniqueness of the Kodak-brand parts to create a prima facie case of a separate market. *Id.*

supply costs for Kodak-brand parts are the same as those of the Kodak servicing operation with which they are compared. Since Kodak did not make the Kodak-brand parts available to the ISOs, it is not entirely clear how such a comparison could be made. If the prices of Kodak-brand parts reflected the brand premium on the Kodak equipment, higher prices for Kodak-brand parts, and hence a higher input-cost component of servicing, would be consistent with no market power in Kodak-brand parts and with the prices of Kodak-brand parts being constrained by competition in the interbrand equipment market. The latter circumstance would be indicative of no separate market in Kodak-brand parts.

Even apart from its disappointing result, the opinion fails to satisfy that standard of clarity which the legal profession has a right to expect of all Supreme Court antitrust decisions. The Court grants certiorari in a case like the present one in order to clarify the law and to provide direction to the lower courts and the practicing bar on how the antitrust laws should be administered. When the evidence that the plaintiff submitted is described in such vague and imprecise language as that used by Justice Blackmun,[66] the law remains unclarified. The message that is communicated is that very little economically significant evidence of the existence of a brand-specific market will suffice to overcome a motion for summary judgment and to support a jury verdict. Perhaps that is the Court's intention.[67] That result will stimulate litigation and foster trials in nonmeritorious cases. It is especially unfortunate that the Court appeared oblivious to the ramifications of its approach on product innovation.

In *Eastman Kodak*, the Court had the opportunity to address one of the major issues of the day: how to prevent antitrust analysis from casting a pall upon product innovation and thus acting as a suppressant upon the very type of activity which the antitrust laws are intended to stimulate. Unfortunately, the Court majority failed to meet the challenge.

---

66. *See supra* p. 1534.

67. Yet, in other antitrust cases, the Court has imposed a demanding threshold of economically plausible evidence. *See, e.g.*, *Brooke Group*, 113 S. Ct. at 2597-98.