Antitrust Limits on Exploiting Intellectual Property Rights

David R. Boyko
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The transfer and manipulation of intellectual property rights has grown into a large segment of both the United States and international economies and resulted in an increased need for antitrust regulation. Although intellectual property rights generally exist as statutory monopolies, these rights are not absolute, and antitrust law serves to delineate the contours of those monopolies. This paper addresses the limitations that antitrust law places on business planning and conduct and explores how antitrust law functions as a restriction and boundary to the legality and validity of conduct that is lawful under intellectual property law. The first part of this paper discusses the statutory monopolies created when a copyright or patent is granted. It goes on to analyze the antitrust limits on intellectual property, such as tying agreements and attempted monopolization. Finally, this paper explains and chronicles the conflict between intellectual property and antitrust laws as evidenced by disputes over "free riding" and market definitions.

* B.S., Cornell University; M.A., University of Southern California; J.D., University of California Los Angeles School of Law. David Boyko is resident in the Los Angeles office of Fried, Frank, Harris, Shriver & Jacobson, where his practice emphasizes corporate litigation and antitrust counseling involving intellectual property issues. He has co-authored several articles on antitrust law for the Practicing Law Institute and BNA's Corporate Counsel Weekly.

I. THE STATUTORY MONOPOLIES OF INTELLECTUAL PROPERTY

Antitrust law benefits the public by promoting and protecting a competitive marketplace. Intellectual property rights, on the other hand, are essentially statutory monopolies in which the state grants the owner certain exclusive rights with respect to the property. A patent grants the owner exclusive rights to prevent others from making or selling the invention in the United States and to exclude others from the field claimed by the invention, thereby creating a statutory monopoly. As a policy, patent law seeks to induce the introduction of new innovations into the market. The public benefits from increased competition as well as a faster pace of innovation.

Similarly, a copyright grants the owner a narrower monopoly, in order to prevent others from "copying" an original work. An original work can take many different forms: a literary work; a musical work; a dramatic work; a pantomime or choreographed representations; a pictorial, graphic, or sculptural work; a motion picture or other audiovisual work; a sound recording; or architectural work. This grant not only imbues the owner with exclusive rights to reproduce and prepare derivative works, but also to publicly distribute, perform, and display the protected works. Moreover, copyright law, similar to patent law, initially garners the owner a return for creativity, while ultimately bene-

2 Image Tech. Serv., Inc. v. Eastman Kodak Co., 125 F.3d 1195, 1214 (9th Cir. 1997), cert. denied, 118 S.Ct. 1560 (1998) [hereinafter "Kodak II"] (stating that antitrust law seeks to promote and protect competitive marketplace for benefit of general public); see also Lawrence L.C. Lee, Taiwan's Antitrust Statutes: Proposals for a Regulatory Regime and Comparison of U.S. and Taiwanese Antitrust Law, 6 IND. INT'L & COMP. L. REV. 583, 586 (1996) (stating goal of antitrust law is to ensure consumer welfare and market efficiency through fair market competition); Gary Myers, The Differing Treatment of Efficiency and Competition in Antitrust and Tortious Interference Law, 77 MINN. L. REV. 1097, 1100 (1993) (noting that antitrust law promotes competition, not competitors).

3 See 35 U.S.C. § 154 (West 1998) (describing provisions which every patent must contain, excluding rights of all others but holder of patent); 5 DONALD S. CHISUM, CHISUM ON PATENTS § 16.02 (1997).

4 See Kodak II, 125 F.3d at 1214 (explaining that patent laws provide inventor with power to exclude others from selling, making or using patented inventions and benefits public by faster introduction of new inventions as well as increased competition in market); see also Brian G. Brunsvold & William H. Pratt, Intellectual Property Rights- What Are They and How Does a Company Secure Them? in GOING INTERNATIONAL: FUNDAMENTALS OF INTERNATIONAL BUSINESS TRANSACTIONS, at 137, 140 (ALI-ABA Course of Study No. SB04, 1996) (discussing nature of issued patents and effects on marketplace).


fiting the public in the form of increased artistic creativity.\(^7\)

Traditionally, copyright and patent rights were considered near absolute and therefore, were not generally analyzed under antitrust law principles. Over the last several decades, however, certain aspects of intellectual property use have come under increased antitrust scrutiny. As a result, these uses were curbed and led to emerging boundaries for permissible uses of those statutory monopolies.

II. ANTI TRUST LIMITS ON INTELLECTUAL PROPERTY

Vertical exploitation of intellectual property rights can be described as the attempt to leverage dominance of a good or service in its derivative or aftermarkets. For example, a company may seek to leverage its strength in the market for its minicomputers in the markets for those minicomputers' parts or maintenance services. Moreover, the company may require purchasers of a specific computer operating system to also purchase a CPU manufactured by that company. Current antitrust law limits vertical exploitation by restraining tying arrangements and attempted monopolization of a market different from the market in which the protected good or service is sold.\(^8\)

A. Tying Agreements

Under Section 1 of the Sherman Act,\(^9\) tying agreements are unlawful in those situations where: (1) the tied and tying products are two distinct products; (2) there is an express or implied agreement or condition establishing a tie between their purchase; (3) the defendant has sufficient market power for the ty-

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\(^7\) See Kodak II, 125 F.3d at 1214 (asserting that copyright law protects authors' rights and ensures fair return for "creative labor" while simultaneously "stimulating artistic creativity" for benefit of public); see also Thomas Arno, Use Restrictions and the Retention of Property Interests in Chattels Through Intellectual Property Right, 31 SAN DIEGO L. REV. 279, 280 (1994) (noting that congressional copyright protection stimulates innovation).

\(^8\) See, e.g. Russell Lombardy, The Myth of Market Power: Why Market Power Should Not Be Presumed When Applying Antitrust Principles to the Analysis of Tying Agreements Involving Intellectual Property, 8 ST. THOMAS L. REV. 449, 463-464 (1996) (explaining that in situation where products can be marketed separately and have distinct appeal to customers, tying occurs if seller leaves buyer no option but to buy both products as package).

ing product to distort choices for the tied product; (4) and the tie forecloses a substantial amount of commerce in the market for the tied product.\(^{10}\)

The antitrust boundaries of tying claims are relatively clear. In *Digidyne Corp. v. Data General Corp.*,\(^{11}\) the Ninth Circuit was the first court to hold that if the tying product is protected by a copyright or patent, the defendant will be presumed to have market power over that product.\(^{12}\) In *Data General*, Digidyne sued Data General because of Data General's refusal to license its copyrighted "RDOS" operating system software to those who did not also purchase its "NOVA" central processing unit ("CPU").\(^{13}\) Because RDOS was not compatible with all computers, Digidyne had developed a niche market for its own CPUs, which emulated the NOVA processor and thus could run RDOS.\(^{14}\)

The more incompatible or noninterchangeable a product is, the stronger the presumption of market strength.\(^{15}\) For example, customers who were resellers and combined a NOVA CPU with their own application software, were effectively locked-in to


\(^{11}\) 734 F.2d 1336 (9th Cir. 1984).

\(^{12}\) See Digidyne Gen. Corp. v. Data General, 734 F.2d at 1336. Data General was alleged to have refused to license its copyrighted "RDOS" operating system software to those who did not also purchase its "NOVA" CPU. Id. Data General held the copyright for RDOS, so the Court presumed that the statutory monopoly endowed the company with market power for that product. Id.

\(^{13}\) See id. at 1338.

\(^{14}\) See id. (noting that economic power of tying product is remaining element necessary to establish per se violation).

\(^{15}\) This factor is often described as "switching costs" or customer "lock-in." See generally Kodak II, 125 F.3d 1195, 1204 (9th Cir.), cert. denied, 118 S.Ct. 1560 (1998) (discussing how unique parts of Kodak products make switching to different products more costly); Neil D. Van Dalsem, *Service Now Sold Separately: The Supreme Court Expands the Per Se Prohibition of Tying Arrangements in Eastman Kodak Co. v. Image Technical Services*, 28 TULSA L.J. 517, 821 (1993) (noting that sellers often capitalize by imposing ties after buyer has become "locked in").
RDOS because software written for RDOS was not compatible with other operating systems.\textsuperscript{16} As a result, the large initial investment in writing codes compatible with RDOS resulted in customers who were reluctant to convert to a different operating system.\textsuperscript{17} The incompatibility of RDOS thus distorted the competition in the CPU market.\textsuperscript{18} Although Data General argued that the CPU market was sufficiently competitive to preclude its ability to exert market power, the court considered competition in the tied market to be irrelevant.\textsuperscript{19} The court ruled that where the tying agreement is express and involves a copyright or patent, it is per se unlawful.\textsuperscript{20} As a result, further inquiry into the tied market was unnecessary.

Data General outlined antitrust’s limitations on intellectual property rights, but the limitations were not further clarified until 1992 in Image Technical Services, Inc. v. Eastman Kodak Co. ("Kodak I").\textsuperscript{21} The Kodak I decision answered some of the questions left uncertainly open in the intellectual property arena of antitrust law. Kodak manufactured advanced photocopy and microfilm equipment as a primary market. In addition, Kodak competed with independent source organizations ("ISOs") in the aftermarkets for replacement parts, and for service and repairs.\textsuperscript{22} Notwithstanding the fact that Kodak repaired at least

\textsuperscript{16} See Data General, 734 F.2d at 1342 (holding refusal to license software systems unlawful).
\textsuperscript{17} See id. (articulating how customers of defendants are compelled to purchase certain software).
\textsuperscript{18} See id. at 1346-47. Although Data General argued that there was substantial competition in the relevant market for CPUs and, therefore, it did not have sufficient power to distort consumer choices, the court was unpersuaded because tying is per se unlawful. \textit{Id.} As a result, the degree of competition in the tied product market is irrelevant. \textit{Id.; see also Tricom, Inc. v. Electronic Data Sys. Corp., 902 F. Supp. 741, 744-46 (E.D. Mi. 1995).} The court addressed a similar tying arrangement between software and CPUs. \textit{Id. at 742.} In this case, the seller of mainframe CPU time alleged that EDS conditioned the lease of its computer graphics design software used for design of GM autos on the purchase of CPU time on EDS' own mainframe. \textit{Id. at 742-743.}
\textsuperscript{19} See Data General, 734 F.2d at 1338 (documenting prerequisites which yield an unlawful tying arrangement).
\textsuperscript{20} See id. at 1346; \textit{see also Tricom, 902 F. Supp. at 745.} Although it did not decide the issue following a strict antitrust analysis, the court reached a similar conclusion and denied defendant's motion for summary judgment. \textit{Id.} The court noted well-established case law that a patent or copyright holder may not extend the reach of that grant to other products or markets. \textit{Id. at 745.}
\textsuperscript{21} 504 U.S. 451 (1992) [hereinafter "Kodak I"].
\textsuperscript{22} See id. at 457-58. The ISOs sold Kodak parts, as well as repaired Kodak machines using those parts. \textit{Id. at 455.} However, Kodak did not manufacture all of the necessary parts itself. \textit{Id.} It exclusively manufactured only approximately one-third of the total
80% of the machines it manufactured, ISOs had been able to provide cheaper and better service. In the mid-1980s, Kodak began restricting the ISOs' access to those replacement parts Kodak manufactured, and those purchased from other manufacturers. Therefore, ISOs contended they could not effectively compete with Kodak because they lacked access to these replacement parts. The ISOs filed suit against Kodak in 1987. The ISOs alleged that Kodak had tied the purchase of aftermarket parts to service contracts and used its control over the parts market to monopolize, or attempt to monopolize, the service market. The Ninth Circuit Court of Appeals decision reversed Kodak's successful motion for summary judgment. Kodak subsequently appealed to the United States Supreme Court.

Kodak first argued that parts and service constituted only a single derivative market because the demand for parts was functionally and inextricably linked to the demand for service. According to Kodak, the interdependency of those aftermarket items precluded the separation of those markets. The Court ruled, however, that two products could exist in separate markets even though each required the other in order to be of any use. In its second argument, Kodak contended that even if two parts, contracted exclusively with other companies for others, and had no control over the manufacture of many of the remaining parts. Id. at 458.

See id. at 458, 483 (explaining some Kodak equipment owners actually prefer ISO service).

See id. at 458.

Id. (explaining allegations of unlawfulness of Kodak's policies); see also Daniel M. Wall, Aftermarket Monopoly Five Years After Kodak, 11 ANTITRUST 32, 32 (1997) (emphasizing range of concerns regarding effects of Kodak decision).

See Kodak I, 504 U.S. 451, 458-59 (1992); see also Jeffrey J. Keyes, Tying, Exclusive Dealing and Franchising Issues, in 38TH ANNUAL ANTITRUST LAW INSTITUTE, at 1017, 1035 (PLI Corp. L. & Practice Course Handbook Series No. 987, 1997) (noting that tying remains subject to per se analysis under Kodak I). But see Fortner Enter., Inc. v. United States Steel Corp., 394 U.S. 495, 499 (1969) (recognizing instances when tying is subject to rule of reason analysis).


See Kodak I, 504 U.S. at 463.

See id. at 462-63. The Court recognized that many items, such as tires and automobiles are inextricably united. Id. Kodak's argument was also defeated on factual grounds. Id. The ISOs presented evidence that Kodak's own conduct demonstrated that separate markets existed. Id.
markets existed, it lacked market power in the tying market for parts.\textsuperscript{31} The Court rejected this assertion on factual grounds.\textsuperscript{32} Finally, Kodak asserted that even if it did possess such market power, competition in the primary market for photocopier and micrographic equipment precluded Kodak from exercising that power unlawfully.\textsuperscript{33} Kodak argued that it was precluded because if it had raised prices in one of the derivative markets, it would have lost sales in the primary market.\textsuperscript{34} However, the Court held there was insufficient factual support for Kodak's position.\textsuperscript{35}

The \textit{Kodak I} Court emphasized that the switching and information costs associated with Kodak's products tended to defeat its claim of highly cross-linked demand between the primary market and aftermarket.\textsuperscript{36} Because the equipment was incom-

\textsuperscript{31} See Kodak I, 504 U.S. at 488 (explaining products can be tied but still not impose market restraints); see also Jefferson Parish Hosp. Dist., No. 2 v. Hyde, 466 U.S. 2, 12 (1984) (arguing exclusivity as dangerous force and decisive factor in arrangements).

\textsuperscript{32} See Kodak I, 504 U.S. at 464-65. The ISOs had presented sufficient evidence to establish a triable issue of fact regarding Kodak's possession of appreciable market power. \textit{Id.} at 464. Their evidence demonstrated that Kodak had taken effective steps to reduce the availability of parts and used machines (which could be cannibalized for parts) in the aftermarket, and that some customers had switched to service contracts with Kodak because the ISOs they preferred had been squeezed out of business by Kodak's practices. \textit{Id.}

\textsuperscript{33} See Kodak I, 504 U.S. at 470 n.16 (asking whether Kodak has market power over both copiers and micrographic equipment). \textit{See generally} Severin Borenstein et. al., \textit{Antitrust Policy in Aftermarkets}, 63 \textit{ANTITRUST L.J.} 455, 458 (1995) (noting Court's recognition of anticompetitive possibilities even with tied products).

\textsuperscript{34} See Kodak I, 504 U.S. at 470-72. In other words, there was a high cross-elasticity of demand between the primary and aftermarket. \textit{Id.} Moreover, Kodak occupied only a small share of the overall market for similar office equipment. \textit{Id.}

\textsuperscript{35} See \textit{id.} at 473 n.20. There was no evidence that Kodak had either lowered prices in the derivative markets to increase primary market share or had decreased its prices in the primary market to increase its position in derivative markets. \textit{Id.} at 477. Additionally, even if such cross-elasticity of demand between the primary and secondary markets did exist, Kodak would have to have shown that customers had accurate lifecycle costs which would permit such calculations and comparisons among primary market competitors. \textit{Id.} The Court noted that to prevail Kodak would have to have shown that the relevant consumers were able to adequately inform themselves of "price, quality, and availability of products needed to operate, upgrade, or enhance the initial equipment, as well as service and repair costs, including estimates of breakdown frequency, nature of repairs, price of service and parts, length of 'downtime,' and losses incurred from downtime" as well as equally detailed information regarding the primary equipment purchase. \textit{Id.} at 473.

\textsuperscript{36} See \textit{generally} Joseph Kattan, \textit{Market Power in the Presence of an Installed Base}, 62 \textit{ANTITRUST L.J.} 1, 7 (1993) (arguing that customers will absorb higher costs when alternative of abandoning investment will also be costly); Michael W. Klass & Richard T. Rapp, \textit{Litigating the Key Economic Issues Under Kodak}, 7 \textit{ANTITRUST} 14, 15 (1993) (explaining examination of package deals and possible related high switching costs); Barbara A. Reeves & David R. Boyko, \textit{Antitrust Issues for Markets and Aftermarkets}, in 37TH
Compatible with competing products, the high switching costs tended to "lock-in" customers, permitting supra-competitive (or monopolistic) pricing. The Court further considered the degree of linkage suspect because Kodak did not demonstrate that its customers possessed enough information to make detailed lifecycle cost comparisons before they purchased the primary equipment. Moreover, Kodak failed to show that its more restrictive aftermarket distribution policy did not change those comparison figures. Thus, the tying claim was not properly resolved by the motion for summary judgment.

Despite these antitrust limitations, similar effects can be achieved through creative licensing structures. In Data General Corp. v. Grumman Systems Support Corp., Data General was alleged to have unlawfully tied licensing for its advanced "ADEX" diagnostic software to the purchase of other support services. The tying claim failed because Data General's licensing program effectively obviated the need for a "tied" product.

ANNUAL ADVANCED ANTITRUST SEMINAR: DISTRIBUTION AND MARKETING, at 999, 1011 (PLI Corp. L. & Practice Course Handbook Series No. 1031, 1998) (discussing high switching costs because of incompatibility of Kodak products and other parts).


38 See Kodak I, 504 U.S. at 473-77 (elaborating on maintenance agreement for repair services).

39 36 F.3d 1147 (1st Cir. 1994).

40 See Data Gen. Corp. v. Grumman Sys. Support Corp., 36 F.3d at 1156. The claim was brought by Grumman as an independent service organization (ISO) for post-sales support of Data General hardware and a competitor in that market. Id. In the mid-80s, Data General had refused to license its most advanced diagnostic software, ADEX, to ISOs and limiting licenses to its own technicians and in-house technicians for customers providing their own maintenance service. Id. at 1155.

Data General did not require its customers to also contract for Data General's support services. Instead, the company licensed the ADEX software only to those who voluntarily signed a cooperative maintenance agreement and an agreement that the systems purchased were only for their own use or for resale as an authorized distributor. The use of ADEX also was included in Data General's support services options for those customers who did not choose to participate in maintenance software agreements. The cooperative maintenance agreement was a precondition for licensing, rather than the purchase of support services; Grumman therefore failed to establish a tied product or market. Moreover, consumers were not coerced into becoming self-maintainers and so the tying claim was reduced to a refusal to license and ultimately failed.

Similar success was achieved in Advanced Computer Services of Michigan, Inc. v. MAI Systems Corp., MAI was sued by seven ISOs who held a collective 10% share of the service market for specialized minicomputers sold and served by MAI.

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42 See Data General, 36 F.3d at 1154 (elaborating on maintenance agreement for repair services).
43 See id. Data General's reliance on the cooperative maintenance agreement as a conditioning vehicle for licensing diagnostic software also provided an aesthetically appealing business solution by not driving customers away. Id. Those customers that purchased support services from Data General had access to the diagnostics through the regular service package. Id. at 1155. Those customers who performed their own maintenance (or were authorized distributors) were unaffected, as the maintenance agreement merely formalized a pre-existing state of affairs. Id. at 1155. The only customers who suffered were the ISOs seeking to use Data General's products to compete against it in the service aftermarket, and the loss of license revenues was offset by the decrease in competition in that aftermarket. Id.
44 Id. at 1181. The Court determined that Grumman's allegation of tying between ADEX service and DG support service failed because there was no proof that these were "truly distinct products." Id.
46 See Data Gen. Corp. v. Grumman Sys. Corp., 36 F.3d 1147, 1187-89 (1st Cir. 1994). The Court held that "while exclusionary conduct can include a monopolists' unilateral refusal to license a copyright, an author's desire to exclude others from use of its copyrighted work is a presumptively valid business justification for any immediate harm to consumers." Id. The Court concluded that Grumman could not overcome this presumption. Id.
The ISOs alleged that MAI had monopolized the service aftermarket and unlawfully tied its copyrighted operating and diagnostic software with repair and maintenance services. The focus of the ISOs' disagreement was MAI's license for its software, which limited use only to authorized licensees and MAI. Thus the ISOs were unable to use that software in connection with their servicing tasks. Similar to Data General, despite the existence of two separate products (software and service), the tying claim failed because there was no explicit agreement tying the two products. The Court stated that:

MAI's decision to license selectively, rather than sell, its copyrighted software... is not evidence of an illegal tying agreement. It is within MAI's discretion to protect its copyrighted works, and...[s]uch selective licensing... does not constitute evidence of an express, or even implied, tying agreement.

Recent cases further demonstrate that licensing offers a lawful mechanism for the exploitation of intellectual property rights.

49 See id. at 359 (explaining suit brought by seven ISOs who, combined, only constitute 10% of market share).

50 See id. at 368 n.15 (elaborating on services provided by MAI).


52 See Advanced Computer Serv., 845 F. Supp. at 359-60 (alleging that MAI "is impermissibly using its copyrights to preclude competition in MAI computer maintenance and repair" by limiting use to only authorized licensees and MAI).


54 See Advanced Computer Serv., 845 F.Supp. at 368 (concluding further that plaintiffs could not maintain per se nor rule of reason tying claim because there was no tying arrangement); see also Service & Training, Inc. v. Data Gen. Corp., 963 F.2d 680, 686 (4th Cir. 1992) (holding that selective licensing by Data General did not constitute illegal tying arrangement).
through what otherwise would be deemed exclusionary conduct. Aftermarket linkages can be achieved through appropriate conditions and restrictions, so long as they remain couched as conditions, rather than ties.

B. Attempted Monopolization

Antitrust law restrains the ability of an intellectual property holder to exploit the full potential of those property rights. On numerous occasions, the Supreme Court has held that the power derived from legal advantages such as a patent or copyright can give rise to antitrust liability if the seller exercises his dominance in one market in order to expand his empire into the next. Attempted monopolization of a derivative or aftermarket is unlawful under Section 2 of the Sherman Act when: (1) the defendant has a specific intent to control prices or destroy competition in the relevant market; (2) the defendant practices predatory or anticompetitive conduct, with the intent of achieving the foregoing objective; (3) there is a dangerous probability of achieving that objective; and (4) the plaintiff suffers antitrust injury.

In attempted monopolization claims, a company typically restricts access to its intellectual property in one derivative market to increase its market share in a second derivative market. As a result, a competitor, or group of competitors, brings suit. A finding of antitrust liability in cases involving such restraints typically turns on two primary factors: (1) the definition of the

55 See, e.g., United States v. General Elec., 272 U.S. 476, 491 (1926) (affirming that conditions imposed by patentee which licensee agreed to, such as price fixing will be upheld by courts as legal); see also Mallinckrodt Inc. v. Medipart, Inc., 976 F.2d 700, 704-05 (Fed.Cir. 1992) (reiterating that patent holder may grant license with condition of performance that is reasonably within patent holder's legitimate control); Lucasarts Entertainment Co. v. Humongous Entertainment Co., 870 F.Supp. 285, 289 (N.D. Cal. 1993) (finding that price restriction in license agreement did not violate Sherman Act because it was "reasonably adapted to secure the pecuniary reward for the [Lucas Arts' lawful] monopoly").


58 See Kodak II, 125 F.3d 1195, 1202 (9th Cir.), cert. denied, 118 S.Ct. 1560 (1998) (setting forth what is required to prevail on section 2 claim); see also Spectrum Sports, Inc. v. McQuillan, 506 U.S. 447, 459 (1993) (holding that "petitioners may not be liable for attempted monopolization under section 2 of Sherman Act absent proof of dangerous probability that they would monopolize a particular market and specific intent to monopolize").
relevant market, which is proportionate to the relative incompatibility with its competitors of the product which incorporates the intellectual property; and (2) whether there has been a restrictive change in the established distribution path for that intellectual property, which is considered anti-competitive.59

1. Defining the Relevant Market

The Kodak I decision seems to have had the greatest impact on intellectual property rights because it established two new boundaries on the scope of intellectual property rights. The first limit exists where the product at issue is incompatible with its competitors'. The Kodak I court reasoned that a relevant market was to be determined from the consumer's perspective and the choices available from that perspective.60 Kodak's equipment was incompatible with that of its competitors'. Therefore, the consumer's inability to easily switch between brands limited the relevant service market to "only those companies that service Kodak machines."61 In essence the court implicitly asserted that the Sherman Act was a consumer protection statute.

After the Kodak I decision, if one product is incompatible with its competitors, that brand constitutes the relevant market for antitrust purposes. As a matter of law, the exclusivity of intellectual property rights provides the manufacturers with monopoly power in that product's market.62 A single brand can form the entire market, while the owner of those rights will hold de facto, as well as de jure, monopoly power.63 The single brand market of Kodak, however, will not automatically exist because of mere incompatibility. Subsequent courts have pursued addi-

60 See Kodak I, 504 U.S. 451, 481 (1992) (concluding that proper market is determined "only after a factual inquiry into the commercial realities faced by consumers") (quoting U.S. v. Grinnell Corp., 384 U.S. at 572).
61 See Kodak II, 125 F.3d at 482 (stating some instances where one brand of product can constitute separate market).
63 See id. This can also be envisioned as an inverse relationship between the uniqueness of the intellectual property and the size of the relevant market it will be measured against. Id.
tional analyses to determine the actual level at which product incompatibility should be measured.

In *Tarrant Service Agency, Inc. v. American Standard, Inc.*,
the defendant's primary equipment required three types of parts in the aftermarket: "genuine," duplicator (which could substitute for genuine), and generic. The court noted that even though genuine and duplicator parts were not compatible with the other manufacturers' equipment, all three categories of parts were reasonably interchangeable substitutes for each other. Each could be used to repair the equipment. Consequently, the combined market for all three parts was the relevant market in which to measure incompatibility.

Any attempt to define the relevant market is further complicated by the existence of bundled products. *Digital Equipment Corp. v. Uniq Digital Technologies* illustrates this problem. Digital Equipment Corp. ("DEC") sold its computers at a discount to another company which then bundled the computer with its own adapted version of the UNIX operating system. However, DEC withdrew its price discounting policy for those customers who had been reselling the bundled system once DEC developed its own adaptation of UNIX. Uniq eventually sued DEC for attempting to monopolize the operating systems market.

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64 12 F.3d 609 (6th Cir. 1993).
65 See *Tarrant Serv.*, 12 F.3d at 612. The dispute arose because the defendant implemented a more restrictive policy for aftermarket sales of genuine parts so as to limit competition for sales of parts. *Id.* The plaintiff was appealing from a motion granting judgment for the defendant notwithstanding a jury verdict finding that the defendant had monopolized the parts aftermarket. *Id.*
66 See *id.* at 614 (stating generic parts are reasonably interchangeable and all parts can substitute for others in repair scenarios).
67 See *id.* The court noted, "[a]lthough generic parts can be used for a multitude of different purposes, they can certainly be used for the same purpose of repairing Trane products. *Id.* Thus, generic parts have reasonable interchangeability with Trane genuine parts for the purpose of repairing Trane equipment and are part of the relevant market." *Id.*
68 See *id.* at 615 (noting that court affirmed order granting judgment for Trane because Tarrant failed to produce evidence of relevant market as well as Trane's supposed monopoly in market).
69 73 F.3d 756 (7th Cir. 1996).
70 See *Digital Equip. Corp.*, 73 F.3d 756, 763 (7th Cir. 1996) (holding that manufacturer's policy of including operating system with each of its computers was not violation of antitrust law).
71 See *id.* (discussing contractual arrangement giving rise to this dispute).
72 See *id.* at 758 (detailing cancellation of contract between DEC and Uniq).
for DEC computers.\textsuperscript{73} The court declined to adopt Uniq's contention that a computer without an operating system existed as a relevant market.\textsuperscript{74} Instead, the court concluded that an operating system is an essential element of a computer. All manufacturers include "an operating system with the physical parts that make up a computer. Consumers are free to buy and install additional operating systems."\textsuperscript{75} Thus, DEC's true product was computational power and the relevant market was for mid-range computer systems that provided similar amounts of computational power. In that broader market, DEC held less than the thirty percent share deemed necessary to confer market power.\textsuperscript{76} Moreover, the UNIX operating system could operate on any of the competing computer systems.\textsuperscript{77} This left customers free to change hardware brands without changing operating systems, and DEC could not extract monopolistic prices for its hardware.\textsuperscript{78} Thus, DEC was free to change the terms for hardware sales to its resellers without incurring antitrust liability.

In \textit{Queen City Pizza, Inc. v. Domino's Pizza, Inc.},\textsuperscript{79} the court concluded that the relevant market was broader than the products at issue.\textsuperscript{80} Queen City Pizza, a Domino's franchise, alleged that Domino's had monopolized the aftermarket for pizza sup-

\textsuperscript{73} \textit{See id.} The suit had originated with DEC suing Uniq for payment of a promissory note held by DEC. \textit{Id.} Uniq raised the antitrust issue as a counterclaim. \textit{Id.} Uniq's counterclaim was dismissed before trial, and that result was affirmed in the Seventh Circuit's opinion discussed herein, which was authored by the highly respected Judge Easterbrook. \textit{Id.}

\textsuperscript{74} \textit{See id.} at 760-761 (stating Uniq accused DEC of monopolization because DEC shipped operating systems with each computer distributed).

\textsuperscript{75} \textit{See id.} at 761. The court explained that this arrangement "is not a reduction of competition; the process is competition." \textit{Id.}

\textsuperscript{76} \textit{See id.} at 761 (concluding thirty percent is not "enough to confer substantial market power"); \textit{see also} Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2, 7 (1984) (stating that hospital having thirty percent of market did not have monopoly power over that market); Twin Labs., Inc. v. Weider Health & Fitness, 900 F.2d 566, 570 (2nd Cir. 1990) (reiterating that thirty-three percent market share does not constitute "dangerous probability of success" to monopolize).

\textsuperscript{77} \textit{See Digital Equip. Corp.,} 73 F.3d at 763 (stating that Uniq customers are not required to use any particular hardware).

\textsuperscript{78} \textit{See id.} at 762. The court concluded that "[i]nstead of paying DEC for something they did not want, customers will turn elsewhere- for other firms can increase their profits by satisfying users' demand." \textit{Id.}

\textsuperscript{79} 124 F.3d 430 (3rd Cir. 1997).

\textsuperscript{80} \textit{See Queen City Pizza, Inc. v. Domino's Pizza,} 124 F.3d 430, 437-440 (3rd Cir. 1997) (discussing relevant markets and significance of interchangeable nature of products in defining markets).
plies by requiring suppliers’ and distributors’ approval for its franchisees.\textsuperscript{81} Queen City further alleged that monopolization allowed Domino’s to provide 90\% of the supplies and ingredients used in the stores.\textsuperscript{82} Relying on Kodak, the franchisees had narrowly defined the relevant market as consisting solely of Domino’s pizza supplies.\textsuperscript{83} That market definition was unsuccessful because its boundaries were determined by a contractual relationship, the franchise agreement, rather than requisite cross-elasticity of demand or product interchangeability.\textsuperscript{84}

The court emphasized that:

The test for a relevant market is not commodities reasonably interchangeable by a particular plaintiff, but ‘commodities reasonably interchangeable by consumers for the same purposes.’ A court making the relevant market determination looks not to the contractual restraints assumed by a particular plaintiff when determining whether a product is interchangeable, but to the uses to which the product is put by consumers in general. Thus, the relevant inquiry here is . . . whether pizza makers in general might use products interchangeably.\textsuperscript{85}

The products were not unique. As a result, \textit{Kodak I} did not apply and Domino’s supplies did not constitute a single brand market.\textsuperscript{86}

A broad market definition may also exist where the products are a subset of a larger grouping of products which have independent importance to the consumer. Following its loss after a jury trial, Kodak argued in \textit{Image Technical Services, Inc. v.} 

\textsuperscript{81} See \textit{id.} at 434. Domino’s exerted this control by reserving the right, in its standard franchise agreement, to require franchisees to purchase ingredients, supplies, and materials exclusively from Domino’s or approved suppliers or distributors. \textit{Id.}

\textsuperscript{82} See \textit{id.} at 433 (noting that Domino’s, Inc. sells large proportion of $500 million in ingredients and supplies used by Domino’s franchisees).

\textsuperscript{83} See \textit{id.} at 438. Plaintiff’s asserted that the relevant market failed because it did not include interchangeable products. \textit{Id.} On the contrary, plaintiff’s mistakenly limited the market to products currently approved by Domino’s, Inc. \textit{Id.}

\textsuperscript{84} See \textit{id.} at 437-41 (rejecting plaintiffs’ proposed relevant market because market cannot be restricted solely to those products that Domino’s Pizza Inc. currently approved for use by Domino’s franchisees).

\textsuperscript{85} See \textit{id.} at 438. The court went on to state that no court has defined a relevant market by utilizing references to the plaintiff’s particular contractual restraints. \textit{Id.}

\textsuperscript{86} See \textit{id.} at 440 (distinguishing \textit{Kodak I} by concluding that differences between Kodak’s transactions and franchise relationships are compelling).
Eastman Kodak Co. ("Kodak II")\(^87\) that the trial court had improperly defined the parts market as being comprised of "all parts."\(^88\) Kodak argued that because the parts were not interchangeable, each individual part constituted a separate market.\(^89\) Moreover, Kodak contended that the ISOs had to prove that the unavailability of each part led to Kodak's monopolization of the service market.\(^90\) The Ninth Circuit rejected Kodak’s argument\(^91\) and ruled that the market was properly defined by "the 'commercial realities' faced by ISOs and end users."\(^92\) Consumers’ assumptions that service providers would have, or could get any parts necessary for repairs, dictated that all the parts were included in the relevant market.\(^93\)

Both Kodak II and Queen City Pizza indicate the limited applicability of Kodak I's single brand market. These cases emphasize the supremacy of the consumer's market perspective over that of a plaintiff's.\(^94\) Post-Kodak I cases have tended to look for broader product agglomerations to define a relevant market, rather than accept plaintiffs' arguments that the specific product

\(^87\) 125 F.3d 1195 (9th Cir.), cert. denied, 118 S. Ct. 1560 (1998).

\(^88\) See Kodak II, 125 F.3d 1195, 1203 (9th Cir.), cert. denied, 118 S.Ct. 1560 (1998) (indicating Kodak had argued that ISOs "all parts" market theory has no support in existing antitrust law).

\(^89\) See id. (examining Kodak’s contention that there are thousands of individual "part" markets).

\(^90\) See id. (explaining Kodak's contention that ISOs must prove that their failure to obtain nonpatented parts resulted in Kodak's monopoly over service).

\(^91\) See id. at 1204-05 (indicating market for Kodak parts fall within “cluster” analysis); see also JBL Entertainment, Inc. v. Jhirmack Enter., Inc., 698 F.2d 1011, 1016-17 (9th Cir. 1983) (indicating “cluster approach” can be used where product package is significantly different from individual products).

\(^92\) See Kodak II, 125 F.3d at 1203-05 (explaining market for Kodak parts is amenable to “cluster” analysis, thereby customers assumedly view service providers as having ability to obtain any part necessary to complete repairs).

\(^93\) See id. at 1204. Even though Kodak was the exclusive manufacturer for only approximately one-third of the total parts and did not even control manufacture of many of the others. Id. The Court adopted the cluster analysis because disaggregating the markets would have introduced duplicative evidence, but would not have altered the conclusion of monopoly power. Id. As the Court noted, “Kodak’s 100% monopoly power over the 30% of parts it manufactures suggests the same potential for control of the service market under an individual part market theory that the jury found using the ‘all parts’ market.” Id. at 1204-05.

\(^94\) See Ronald F. Kehoe & James J. Arquin, The Reaction of the Courts and Marketplace Four Years After Kodak, in ANTITRUST/INTELLECTUAL PROPERTY CLAIMS IN HIGH TECHNOLOGY MARKETS: LITIGATING AND ADVISING IN AN ERA OF UNCERTAINTY, at 41, 56 (ALI-ABA Course of Study No. SB63, 1997) (explaining that decision in Kodak I was due to gaps in information available to consumers); Alan H. Silberman, The Myths of Franchise "Market Power", 65 ANTITRUST L.J. 181, 206 (1996) (defining relevant market as requiring references to all alternatives available to consumers).
at issue comprises the relevant market. Where individual products are bundled with other items, or constitute subsets of a group of similar items, it appears more likely that the relevant market will be broader than the individual item.

2. Restricting Distribution as Exclusionary Conduct

The second Kodak I boundary offers an even sharper restraint on intellectual property rights. Although the fundamental principles of intellectual property law impose no duty on owners to deal with competitors, antitrust law circumscribes that right. The Aspen Skiing Co. v. Aspen Highlands Skiing Corp. Court explained that a "monopolist may not refuse to deal with a competitor in an exclusionary attempt to impede competition without a legitimate business reason." In Kodak I, Kodak argued that it was entitled to restrict the availability of its parts in order to prevent free-riding by its competitors. The ISOs relied on Kodak for primary design and development of the equipment and parts, as well as for service and diagnostic routines. Consequently, the ISOs were essentially able to enter and exploit aftermarkets without the necessity for large capital and human investments in the fundamental technologies and infrastructure.

95 See Robert H. Lande & Sturgis M. Sobin, Reverse Engineering of Computer Software and U.S. Antitrust Law, 9 HARV. J.L. & TECH. 237, 251 (1996) (indicating relevant markets consist of any products or groups that compete with product at issue); Reeves & Boyko, supra note 36, at 1019 (explaining that relevant market was interpreted to include Domino's Pizza franchises and its supplies in one case).

96 See Jay Dratler, Microsoft as an Antitrust Target: IBM in Software?, 25 SW. U.L. REV. 671, 728 (1996) (indicating certain cases turn upon whether relevant market consists of all products of certain type or just subset of compatible products); Henry H. Pitt, Jr., Access to the National Information Infrastructure, 30 WAKE FOREST L. REV. 51, 78 (1995) (stating possibility of larger relevant market when items or service are tied).

97 See Aspen Skiing Company v. Aspen Highlands Skiing Corp., 472 U.S. 585, 600 (1985), recognizing that firm with monopoly has no duty to deal with competitor; see also Rural Telephone Serv. Co. v. Feist Publications, Inc., 957 F.2d 765, 769 (10th Cir. 1992) (asserting that monopolist can refuse to license copyrights where there were no anticompetitive effects); Miller Insituform, Inc. v. Insituform of N. Am., Inc., 830 F.2d 606, 608-09 (6th Cir. 1987) (concluding that it is lawful to refuse to license patents).

98 See Aspen Skiing Co., 472 U.S. at 608. There, as here, a competitor with monopoly power had restricted the established pattern of distribution in the market in order to squeeze out its competitors. Id.

99 See Kodak I, 504 U.S. 451, 461 (1992) (explaining Kodak's restrictions were aimed at preventing ISOs from benefiting from Kodak's investment in copier industry).

100 See id. at 485 (stating Kodak contends ISOs are free-riding because they have not entered equipment and parts markets).

101 See id. (explaining Kodak's claim that its restrictive policies were to prevent ISOs
ISOs could maintain a competitive price advantage over Kodak. In essence, Kodak argued that it restricted entry to the parts market to force competitors to enter the primary equipment market in order to participate in the aftermarkets.\textsuperscript{102} The court ruled that this was not a legitimate justification.\textsuperscript{103} In fact, Kodak's actions were contrary to established antitrust law which forbids forcing simultaneous entry into two markets.\textsuperscript{104}

Conversely, where there has not been a change in the character of the market, the attempted monopolization claim fails.\textsuperscript{105} The antitrust analysis; however, will not attach liability to a restriction in distribution patterns as long as the market's character does not change. Thus, if the relevant market had been a monopoly, distribution restrictions would not make the market more monopolistic because the market had never been competitive.\textsuperscript{106}

Intellectual property doctrine does offer some measure of protection from liability for refusal to deal or license.\textsuperscript{107} Although from exploiting Kodak's large investments in product development, manufacturing, and equipment sales).\textsuperscript{102}

See id. at 483. Kodak couched its argument on three fronts: (1) maintaining a level of quality of service; (2) reducing inventory costs; and (3) preventing free-riding by ISOs.\textsuperscript{103}

See id. at 485 (finding insufficient factual support).

See id. at 485 n.33 (citing Continental T.V., Inc. v. GTE Sylvania, Inc., 433 U.S. 36 (1977) and Monsanto Co. v. Spray-Rite Service Corp., 465 U.S. 752 (1984)). In a footnote, however, the Court further noted that seeking to prevent free-riding would be an acceptable justification if it occurred in the single relevant market. \textit{Id.} Here, that would be the service market, instead of the parts and equipment markets, as alleged by Kodak. \textit{Id.} Note that the Court previously had accepted exclusionary conduct to prevent free-riding in the context of a manufacturer seeking to ensure that its retail distributors all made the investments necessary for effective marketing and post-sales support of the products. \textit{Id.}


See Data Gen. Corp., 36 F.3d at 1188 (explaining Data General had always been monopolist in service aftermarket, so court could not infer that former policy had allowed competitive conditions to prevail).

See Peter Brown, \textit{Unilateral Refusal to License, in INTELLECTUAL PROPERTY ANTITRUST 1996, at 565, 581-82 (PLI Patents, Copyrights, Trademarks, & Literary Prop. Course Handbook Series No. 449, 1996) (interpreting 1995 Department of Justice antitrust guidelines as allowing refusal to license that are not in furtherance of anticompetitive means); Barbara A. Reeves et. al., Unilateral Refusal to License Intellectual Property Rights, in INTELLECTUAL PROPERTY ANTITRUST 1996, at 401, 434 (PLI Patents, Copyrights, Trademarks, & Literary Prop. Course Handbook Series No. 449, 1996) (generalizing that owner of intellectual property has right to refuse to license); see also}
refusal to license is exclusionary conduct; such refusal is presumptively deemed a legitimate business justification where it is done to protect a patent or copyright. The burden then shifts to the plaintiff to rebut that presumption. As a result, the ultimate question will be whether this presumption is the actual reason for the restriction, or merely a pretext for a purely anticompetitive intent.

3. Are Kodak I's Boundaries Independent or Dependent?

The Kodak I decision did not answer the question of whether its new restrictions on intellectual property rights applied independently of each other, or whether they were interdependent restrictions. Subsequent courts have proceeded to interpret those restrictions as interdependent. In order for a single brand to constitute the relevant market and the distribution change necessary to create antitrust liability, both lock-in and restrictive changes in distribution must exist.


108 See Kenneth M. Frankel, Problems in Licensing Intellectual Property for Software and Computer Technology: Important Antitrust and Misuse Considerations, in COMPUTER SOFTWARE PROTECTION, at 733, 733 (PLI Patents, Copyrights, Trademarks, & Literary Prop. Course Handbook Series No. 479, 1997) (indicating courts gave found refusals to license as having valid business justifications); James B. Kobak, Jr., Running the Gauntlet: Antitrust and Intellectual Property Pitfalls on the Two Sides of the Atlantic, 64 ANTITRUST L.J. 341, 354 (1996) (enunciating recent First Circuit decision finding presumption of legitimate business justification in copyright owners refusal to license); see also Taylor, supra note 107, at 806 (indicating First Circuit has refused to hold copyright owner's refusal to license as invalid business justification).

109 See Data Gen. Corp., 36 F.3d at 1187. The Court reasoned that, although the Copyright Act encourages anti-competitive practices through its grant of exclusive use and the ability to extract monopolistic prices, this was overcome by the pro-competitive effects of encouraging investment and innovation. Id.; see also Taylor, supra note 107, at 806. In discussing the court's treatment of the Data General case, the author asserts that the court created a rebuttable presumption that refusal to license is lawful. Id.

110 See Ronald S. Katz et. al., Eastman Kodak Co. v. Image Technical Services, Inc.: Downfall to the Chicago School of Antitrust Economics, in NEW DIRECTIONS IN ANTITRUST LAW AFTER KODAK AND TICO: MARKET DEFINITION, SUMMARY JUDGMENT, ECONOMIC THEORY, AND STATE ACTION, at 1, 10 (ALI-ABA Course of Study No. C847, 1993) (stating single brand may constitute relevant market under lock-in theory); Thomas C. Arthur, The Costly Quest for Perfect Competition: Kodak and Nonstructural Market Power, 69 N.Y.U. L. REV. 1, 60-61 (1992) (interpreting Kodak as requiring both lock-in and distributional restraint to qualify single brands as relevant markets); Barry Reingold, Lower Court Decisions in the Aftermath of Kodak, 11 NO. 8 COMPUTER LAW 21, 22 (1994) (indicating Kodak Court found evidence that many users were "locked-in" to use of Kodak's parts and services due to high cost of switching out); Norman E. Rosen, Intellectual
In Digital Equipment Corp. v. Uniq Digital Technologies,\textsuperscript{111} the plaintiff argued that *Kodak I* applied to Digital’s restrictive change in resale pricing policy because there was a separate market for operating systems for Digital computers.\textsuperscript{112} The court disagreed, interpreting *Kodak I* as turning on a change in distribution policy which “enabled Kodak to extract supra-competitive prices from customers who had already purchased its machines.”\textsuperscript{113} The UNIX operating system was compatible with competing manufacturers’ hardware and Digital was unable to raise its prices without the risk of losing customers.\textsuperscript{114} Thus, *Kodak I* did not apply, and distribution restrictions did not create liability.\textsuperscript{115}

The *Kodak I* decision was similarly applied by the court in *PSI Repair Services, Inc. v. Honeywell, Inc.*\textsuperscript{116} PSI addressed a competitor’s ability to force open an aftermarket.\textsuperscript{117} Honeywell manufactured and sold industrial control equipment largely composed of printed circuit boards.\textsuperscript{118} Most of the boards’ components were generic parts, while the remaining few were designed by third party manufacturers, specifically for Honeywell.\textsuperscript{119} Honeywell did not sell those replacement parts, had restrictive contracts preventing sales by those manufacturers to


\textsuperscript{111} 73 F.3d 756 (7th Cir. 1996).

\textsuperscript{112} See Digital Equip. Corp. v. Uniq Digital Technologies, 73 F.3d at 763 (concluding DEC failed to exploit customers of its lock-in equipment).

\textsuperscript{113} See id. (stating Uniq had not supplied evidence of such conduct).

\textsuperscript{114} See id. (indicating customers who used UNIX were not committed to any specific hardware).

\textsuperscript{115} See id. The Court stated, “Customers who use Unix are not committed to any manufacturer’s hardware; they can play the field. One can hardly imagine a weaker case for the claim that DEC’s computers are a market unto themselves.” *Id.* Interestingly, this analysis supports the pre-*Kodak I* decision in *Data General*. There, the RDOS operating system was not compatible with Data General’s competitors. Moreover, Data General was also the seller of the copyrighted operating system as well, a significant difference from DEC’s position.; see also Kehoe, *supra* note 41, at 233, 257. *Digital Equipment Corp.* has been lumped with other post-*Kodak I* market power cases that have been decided against the plaintiffs. *Id.*

\textsuperscript{116} 104 F.3d 811, 815 (6th Cir. 1997) (granting summary judgment for manufacturer in ISOs antitrust claim).

\textsuperscript{117} See PSI Repair Serv. v. Honeywell, Inc., 104 F.3d at 816 (discussing separate market just for services).

\textsuperscript{118} See *Id.* at 813 (explaining Honeywell’s market in this situation).

\textsuperscript{119} See *Id.* at 816 (stating that third party manufacturers make about five percent of Honeywell’s boards).
third-parties, and maintained control of those circuit boards during repairs. PSI provided circuit board repair services for owners of competing controller systems, but had been unable to enter the market for servicing Honeywell equipment. PSI brought suit against Honeywell, alleging both tying and monopolization claims.

The PSI court focused primarily on whether the relevant market was for Honeywell brand components because they were not interchangeable with others, or whether the market was more appropriately the upstream market for primary equipment. The Court interpreted Kodak I's single-brand market to arise only where the aftermarket policy changed and consumers were locked-in to that brand without the opportunity to consider that change when purchasing the primary equipment. Kodak I was inapplicable because there was no evidence of aftermarket change here. Therefore, the relevant market was the market for the primary equipment. Because there was no showing of market power in that competitive market, Honeywell could not be held liable for antitrust violations. In a decision consistent with Digital Equipment Corp., the PSI court held that a single brand market does not exist when there is no restrictive change in the distribution pattern.

The previous cases indicate that Kodak I's restrictions on intel-

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120 See id. at 813. When the boards fail, Honeywell provides replacements, using either a new or refurbished board from its own inventory. Id. at 817. Honeywell then evaluates and repairs, if possible, the returned board. Id. After refurbishment, the board will be provided as a replacement part to another customer. Id.

121 See id. at 813-14 (describing PSI's role in market).

122 See id. at 818 (explaining PSI's contention that Honeywell controlled market because its brand components were not interchangeable with those of other manufacturers).

123 See id. at 820. "We likewise agree that the change in policy in Kodak was the crucial factor in the Court's decision. By change in its policy after its customers were 'locked in,' Kodak took advantage of the fact that its customers lacked the information to anticipate this change. Therefore, it was Kodak's own action that increased its customers' information costs." Id.; see also George A. Hay, Is the Glass Half-Empty or Half-Full?: Reflections on the Kodak Case, 62 ANTITRUST L.J., 177, 180 (1993). The author raises the issue as to whether a single brand could ever be a relevant market. Id.

124 See PSI Repair Serv., 104 F.3d at 821.

125 See id. Although the district court had initially concluded that Honeywell's proprietary interest in its components was a legitimate basis for its acquisition of monopoly power in the service aftermarket, the appellate court ruled that, because the relevant market was that for the primary equipment, the district court's analysis no longer applied. Id.

126 See id. at 822.
lectual property rights are not independent, but are interde-
pendent. Where consumers are not vulnerable to product lock-
in, a restrictive change in distribution will not impose unreason-
able switching costs on them and antitrust liability will not lie. In practical terms, the more interchangeable the product is with its competitors (and therefore the potentially less valuable the intellectual property rights), the less likely that a manufacturer or owner will incur antitrust liability from restricting its distrib-

III. AREAS OF DEVELOPING DOCTRINE

The question of market definitions and the defense of preventing "free-riding" are two areas where intellectual property and antitrust law have recently conflicted. Though currently unsettled, these areas are likely to interest intellectual property own-
ers.

A. Scope of the Intellectual Property Monopoly

The courts have yet to craft a complete and well-defined doctrinal framework for resolving the inherent conflicts between intellectual property and antitrust law. The fundamental question remaining is: How exactly does antitrust law limit the intellectual property right of refusal to deal? *Kodak II* illustrates the lack of a complete framework.

In *Kodak II*, Kodak asserted that it was immunized from antitrust liability because its absolute right to refuse to sell its own patented parts constituted a valid defense to otherwise exclusionary conduct.\(^{127}\) The *Kodak II* court acknowledged the existence of conflicting objectives between antitrust and intellectual property laws.\(^{128}\) Furthermore, the court identified the conflicting principles: "(1) neither patent nor copyright holders are immune from antitrust liability, and (2) patent and copyright holders may refuse to sell or license protected work."\(^ {129}\) Essentially, courts will not usually equate a monopolist's refusal to license

\(^{127}\) See *Kodak II*, 125 F.3d 1195, 1218 (9th Cir.), *cert. denied*, 118 S. Ct. 1560 (1998).
\(^{128}\) See id. at 1215.
\(^{129}\) See id. (noting tensions between antitrust, copyright and patent law).
their patent and exclusionary conduct. Nevertheless, lawfulness of an exercise of this right to refuse to sell or license, essentially a right to exclude, depends on whether the owner has attempted to extend the monopoly beyond the scope of the grant. Although the scope of the grant is determined under intellectual property law, whether that statutory monopoly has been extended into a separate market is determined under antitrust law using an economic analysis. The conceptual difference between the statutory grant and the economically derived market results in the friction between antitrust and intellectual property laws.

Unfortunately, rather than harmonize the differences between market definitions governed by intellectual property law and those by antitrust and economic principles, the Kodak II court sidestepped the issue. The court adopted Data General v. Grumman Systems Support's rebuttable presumption that unilateral refusal to license or sell patented or copyrighted material is a valid business justification.

In adopting this presumption, however, the court implicitly circumscribed otherwise lawful intellectual property rights. Considering that one of the fundamental rights bestowed by the monopoly is the right to exclude others, this decision narrows the lawful scope of that fundamental right by illegitimizing the intent to enforce that right specifically against competitors. Moreover, the Kodak II decision left unanswered the validity of those circumstances in which the claimed protection coexists

130 See id. at 1216.
131 See id.
133 See Kodak II, 125 F.3d at 1218-19. Although the court described this approach as a harmonization, it undercuts intellectual property rights by continuing to limit intellectual property rights, whose scope is determined by technical or creative concepts, by antitrust market concepts, whose definition is the product of economic analysis. Id. Moreover, inquiry into the potentially pretextual nature of the conduct introduces a new subjective element into the exercise of intellectual property rights which is not addressed in the grant of those rights. Id. See generally Dana W. Hayter, When a License is Worse than a Refusal: A Comparative Competitive Effects Standard to Judge Restrictions in Intellectual Property Licenses, 11 BERKELEY TECH. L.J. 281, 288 (1996) (emphasizing recognition of right to unilaterally refuse only where right is lawfully acquired).
134 See Kodak II, 125 F.3d at 1206 (upholding lower court ruling and finding Kodak held monopoly in parts market by discouraging self-service and resale of parts by end users).
with the intent to act against competitors. The court failed to recognize the function of intellectual property laws as an impetus for persons to develop and innovate in order to exclude the competition. As such, the person is rewarded with a lawful monopoly which permits recoupment of their initial investment in research and development and foregone opportunities.\textsuperscript{135}

\textit{In re ISOs Antitrust Litigation}\textsuperscript{136} provides a more doctrinal approach to dealing with conflict between intellectual property and antitrust law. A number of ISOs filed suit against Xerox Corp. for antitrust violations arising out of its 1984 decision to stop selling parts for certain copier lines to ISOs unless they were also end-users of the equipment.\textsuperscript{137} In the ensuing litigation, the ISOs plead patent and copyright misuse as affirmative defenses to Xerox's counterclaims for patent and copyright infringement.\textsuperscript{138} Those affirmative defenses alleged that Xerox used its lawful monopolies over certain copier and printer parts, software, and manuals to monopolize service markets for the primary equipment.\textsuperscript{139}

In granting Xerox a partial summary judgment for antitrust claims arising out of refusal to sell or license patented items, the Court addressed the conflict between intellectual property monopoly rights and antitrust law's market exploitation limits.\textsuperscript{140} Deriving its position from patent law, rather than antitrust law, the Court noted that:

There is no prohibition, however, from lawfully using a patent to acquire a monopoly in more than one relevant antitrust market. In other words, a single "patent monopoly"

\textsuperscript{135} See, e.g., \textit{In re ISOs Antitrust Litigation}, 964 F.Supp 1479, 1489 n. 4 (D. Kan. 1997) (discussing incentive to invest time and money in research of innovation).


\textsuperscript{137} See \textit{In re ISOs Antitrust Litigation}, 964 F.Supp. at 1480. Although the policy was announced initially in 1984 and expanded to all subsequent products in 1986, Xerox did not actually begin implementing it until 1989. \textit{Id.} In 1994, Xerox settled the resulting antitrust suit brought by ISOs and agreed to suspend its parts policy for 6½ years. \textit{Id.} Thereafter, Xerox began charging ISOs higher prices for its parts than it charged customers who purchased the parts to service their own machines. \textit{Id.} It was undisputed that Xerox charged these prices not to recoup its development costs, but to drive the ISOs own service rates to their customers to uncompetitive levels. \textit{Id.} That practice resulted in a second antitrust suit and this litigation. \textit{Id.}

\textsuperscript{138} See \textit{id.} at 1482.

\textsuperscript{139} See \textit{id.} at 1491.

\textsuperscript{140} See \textit{id.} at 1488 (discussing how court, in arriving at decision, examined CSU's claim that Xerox engaged in patent misuse in light of antitrust law).
can be used to secure multiple "economic monopolies," i.e., monopolies in more than one relevant antitrust market.... If the court held otherwise, then a patent holder rarely could refuse to license his product without fear that he had not properly defined the relevant antitrust market or considered how the relevant market may be defined in the future.... We do not think Congress intended such limited patent protection or to require such perfect foresight by the patent holder in defining the relevant antitrust market. A patent holder's rights should not fluctuate from day to day based on the changing relevant market definitions.\footnote{141}

The court interpreted \textit{Kodak II} narrowly, so it could apply more to the tying claim than to the unilateral patent-related conduct.\footnote{142} More importantly, the court interpreted Kodak's monopoly power in the service aftermarket as arising more from its position in the market, rather than from its patents.\footnote{143}

There is no unlawful leveraging of monopoly power when a patent holder merely exercises its rights inherent in the patent grant. In other words, Xerox did not exploit its dominant position in the parts market to obtain a monopoly in the service market. Rather, Xerox exploited its lawful patent to obtain a monopoly in both the parts and service markets. Xerox's power and right to exclude ISOs from the service market arose from its patented invention, not from its position in the parts market.\footnote{144}

As a result, the court held that even though more than one economic market was affected, Xerox's refusal to sell or license the patented parts was within the legitimate scope of its patent rights.\footnote{145}

\textit{Kodak II} and In re ISO's Antitrust Litigation represent the

\footnote{141} See id. The court also noted the time-sensitive implications of a decision to the contrary. \textit{Id.} at 1489. The relevant market may include both parts and service when the research is originally conducted, and the patent holder would thus have a legitimate expectation of excluding others from use of the invention in that entire relevant market. \textit{Id.} If the relevant market later changes in that separate markets for parts and service become recognized, the patent holder's lawful patent rights would be partially extinguished by antitrust law. \textit{Id.} at 1488 n.4.

\footnote{142} See id. at 1490 (applying concentrated and contractual activity in context of tying claim).

\footnote{143} See In re ISOs Antitrust Litigation, 964 F.Supp. at 1490.

\footnote{144} See id. at 1489.

\footnote{145} See id. "Although a patent holder perhaps expands his 'economic power' by this conduct, he has not expanded the scope of the patented 'invention.'" \textit{Id.}
current state of judicial decisions in the underlying doctrine. Additional decisions will have to provide further refinement and, ultimately, resolution. In the meantime, intellectual property owners are left to face the prospect of protracted litigation over their refusal to deal with their competitors.

B. Ability to Prevent Competitors from Free-Riding

A second area of uncertainty exists where defendants have asserted their refusal to deal as a legitimate response to their competitors' free-riding. These defendants further assert their competitors sought to compete in the aftermarkets without making the necessary research and development investment in the primary market.146 In Kodak I, the Supreme Court expressly rejected the legitimacy of utilizing a refusal to deal with this "cross-market" free-riding.147

Despite that rejection, the anti-free-riding defense has been accepted as legitimate in certain narrow circumstances, albeit in the context of a copyright or patent misuse claim.148 In those cases, parties alleged patent or copyright misuse as a defense to an infringement suit.149 The basis for this defense is the other party's exclusionary conduct couched in terms of monopolization or attempted monopolization. In essence, the defendant, in a


147 See Kodak I, 504 U.S. at 485-n.33; see also Kodak II, 125 F.3d at 1219. The defense was again rejected in Kodak II. Id. See, e.g., Lovett v. General Motors Corp., 998 F.2d 575, 578 (8th Cir. 1993). There, the court noted that manufacturers have a legitimate "interest in preventing 'free-riding'." Id. To maintain order and service levels among the manufacturer's distribution network, manufacturers may take unilateral and anti-competitive action against a free-riding dealer without incurring antitrust liability. Id. at 576.

148 See Reeves & Boyko, supra note 36, 1031 (explaining anti free-riding defense as necessary anticompetitive conduct to prevent others from taking advantage of own invention).

misuse case, is alleged to have used its copyright or patent to unlawfully extend its monopoly to products outside the scope of the defendant's intellectual property grant.\(^{150}\)

In *Triad Systems Corp. v. Southeastern Express Co.*,\(^{151}\) Triad copyrighted its operating system and diagnostic software for specialized computers for auto parts stores.\(^{152}\) After approximately a decade of operations, Triad stopped selling its software and began a licensing program which did not allow customers to copy the program or allow third parties to use it. In response to Triad's suit for copyright infringement, Southeastern, a competitor in the service aftermarket, argued the affirmative defenses of fair use and copyright misuse.\(^{153}\) With respect to misuse, Southeastern argued that Triad had unlawfully extended its software copyright into the market for service of that software.\(^{154}\) The court was not persuaded by either of Southeastern's arguments. In contrast to *Kodak I*, the court recognized a valid anti-free-riding defense:

Triad invented, developed, and marketed its software to service Triad computers. Southeastern is getting a free ride when it uses that software to perform precisely the same service. Triad is entitled to licensing fees from Southeastern and other ISOs that make use of Triad's software in servicing Triad's computers.\(^{155}\)

Except for an unreported district court decision, this reasoning has yet to be applied to other antitrust litigation.\(^{156}\)

\(^{150}\) See Broadcast Music, Inc. v. Columbia Broad. Sys., Inc. 441 U.S. 1, 1 (1979) (holding general license issued to television networks failed to constitute price fixing or copyright misuse); Lasercomb Am., Inc. v. Reynolds, 911 F.2d 970, 979 n.22 (holding copyright misuse as precluding enforcement but not invalidating copyright completely).

\(^{151}\) 64 F.3d 1330 (9th Cir. 1995).

\(^{152}\) See *Triad Sys. Corp.*, 64 F.3d at 1339.

\(^{153}\) See *id.* at 1338. Triad sought (and received) a preliminary injunction against further servicing of its computers by Southeastern. *Id.* at 1334. Southeastern appealed the issuance of that injunction. *Id.* at 1334.

\(^{154}\) See *id.* at 1337. The court struck down the fair use defense, noting that "Southeastern is simply commandeering its customers' software and using it for the very purpose for which, and in precisely the manner in which, it was designed to be used. *Id.* As a result, the copies made by Southeastern have undoubtedly diminished the value of Triad's copyright." *Id.*

\(^{155}\) See *id.* (holding Triad's copyright extends to service market).

\(^{156}\) See *In re ISOs Antitrust Litigation*, 1997 WL 161941 (D. Kan. 1997). *Triad* was cited with approval here. This case involved an affirmative defense to ISOs' claim of monopolization of service markets for high speed copiers, Xerox asserted that its conduct was justified in order to minimize the ISOs free-riding on Xerox's investments in service
Interestingly, where the two markets were functionally interdependent products (i.e. hardware and software components for an integrated device), rather than a functionally interdependent product and service (i.e. diagnostic software and service), the free-riding defense was rejected.\textsuperscript{157} In DSC Communications Corp. v. DGI Technologies, Inc.,\textsuperscript{158} the Fifth Circuit Court of Appeals reached the opposite conclusion.\textsuperscript{159} DSC manufactured telephone switching systems and held a copyright on the software used in the microprocessors that were embedded in the physical devices. Although DSC sold the systems outright, it licensed only the software, thereby restricting its use to equipment purchased from DSC and barring copying.\textsuperscript{160} Its competitor, DGI, surreptitiously copied DSC’s software, while seeking to develop a compatible microprocessor card for use in DSC switches. DSC sued DGI for copyright infringement and obtained a preliminary injunction.\textsuperscript{161} The injunction was reversed on appeal because the appellate court concluded that DGI may prevail on its defense of copyright misuse.\textsuperscript{162} The court held that DSC was attempting to use its copyrighted operating system to obtain a monopoly over otherwise unpatented microprocessor cards.\textsuperscript{163} The court’s decision relied upon the reality that any manuals, documents, and diagnostic software. \textit{Id.} at *1. Relying on \textit{Kodak I}’s rejection of the free-riding defense, one plaintiff sought summary judgment on this issue. \textit{Id.} However, the court denied the motion. \textit{Id.} at *3. It distinguished this case from \textit{Kodak I} because here the alleged free-riding was in the same market, that for service, rather than across markets. \textit{Id.} Further, the plaintiff failed to establish why it would have had to enter the primary equipment market in order to compete for service, as was alleged in \textit{Kodak I}. \textit{Id.}

\textsuperscript{157} See \textit{id.} (rejecting free-riding defense).

\textsuperscript{158} 81 F.3d 597 (5th Cir. 1996).

\textsuperscript{159} See \textit{DSC Communications Corp.}, 81 F.3d at 601 (suggesting defenses of copyright misuse and patent misuse are analogous).


\textsuperscript{161} See \textit{DSC Communications Corp.}, 81 F.3d at 599 (prohibiting DGI from copying DSC’s software, but not from other related procedures).


\textsuperscript{163} See generally Joseph M. Callow, Jr., \textit{Cut-Throat Competition in the Friendly Skies: Alaska Airlines v. United Airlines}, 61 U. CINN. L. REV. 681, 703-04 (explaining court’s distinction of predatorily obtained monopolies from “superior product” monopolies); David M. Rierman, \textit{The Grinnell Test of Monopolization Sounds a False Alarm: As-
competing microprocessor card was required to be compatible with both: (1) the operating system software; and (2) the hardware of the switching assembly.\textsuperscript{164} This appeared to be an unlawful extension of DSC's software copyright over the unpatented processor hardware.\textsuperscript{165}

These cases seem to indicate partial viability for an anti-free-riding defense, even though such defense only applies to limited market structures. It remains unclear whether the free-riding defense is allowable only within the same market, or whether there are circumstances in which companies will be allowed to block cross-market free-riding. In the meantime, the extent to which these decisions should be interpreted and the degree to which they represent doctrinal guideposts is a conclusion that awaits further discussion by the courts.

CONCLUSION

Under a strictly intellectual property law analysis, it is clear that antitrust law imposes restrictions on conduct that is otherwise lawful. Despite the familiar precept, heightened by the statutory monopolies of copyrights and patents, that there is no duty to deal with one's competitors, antitrust law imposes such a duty. It establishes boundaries on those monopolies by imposing liability when the intellectual property owner restricts dealings with competitors. Moreover, in a twist of logic, the more unique and valuable the intellectual property, the more likely that a refusal to deal will be a basis for antitrust liability. However, when the refusal to deal emerges as potentially exclusionary conduct because it emerges as a change to an established pattern of distribution, the owner is faced with the choice between never licensing or selling the product to competitors, or always doing so.

Additionally, the present state of antitrust analysis of intellectual property rights appears to devalue the damage to those...
rights caused by free-riding competitors. Kodak I and Kodak II expressly rejected the intellectual property owner's right to bar sales to competitors as an attempt to prevent free-riders. The analysis in these decisions is the polar opposite of analysis under intellectual property law. Thus, it remains a troubling matter for intellectual property owners and requires further clarification and resolution.

In a similar vein, resolving the doctrinal differences between the broad scope of intellectual property grants and the economic definition of relevant markets for antitrust purposes remains an unsettled area. The potential variability of economically defined markets imposes an additional restriction on the lawful scope of intellectual property rights. Furthermore, economically defined markets devalue the full potential of those intellectual property rights. However, this issue, as well, requires a doctrinal resolution.