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# Market Power Through Imperfect Information: The Staggering Implications of Eastman Kodak Co. v. Image Technical Services and a Modest Proposal for Limiting Them

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# MARKET POWER THROUGH IMPERFECT INFORMATION: THE STAGGERING IMPLICATIONS OF *EASTMAN KODAK CO. v. IMAGE TECHNICAL SERVICES* AND A MODEST PROPOSAL FOR LIMITING THEM

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## INTRODUCTION

In *Eastman Kodak Co. v. Image Technical Services*,<sup>1</sup> the United States Supreme Court quietly revolutionized antitrust jurisprudence. Holding that “difficult and costly” information gaps in mar-

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1. 112 S. Ct. 2072 (1992).

kets for "complex durable goods" can confer "market power" on sellers in those markets, regardless of their market share,<sup>2</sup> the Supreme Court significantly altered the most critical definition in antitrust law. Because information gaps of the kind recognized in *Kodak* exist in almost every market, cannot be measured with any degree of accuracy, are often of indeterminate cause, and are virtually impossible to remedy, the new methodology announced by the Court in *Kodak* threatens to confuse and complicate antitrust practice and doctrine for many years to come.

The Supreme Court appears neither to have intended to redefine the concept of market power nor to have considered the definitional implications of its decision. Justice Blackmun, writing for the majority in *Kodak*, characterized the controversy before the Court as "yet another case that concerns the standard for summary judgment in an antitrust controversy,"<sup>3</sup> hardly the stuff of revolutionary pronouncements. And though Justice Scalia, in his dissent,<sup>4</sup> disagreed strongly with that characterization, he too ignored the definitional change, arguing that the case presented only "a very narrow," albeit "extremely important," question about the substantive law of tying arrangements and attempted monopolization.<sup>5</sup>

When analyzing the *Kodak* opinion, commentators will doubtless focus on some of its more obvious problems. *Kodak* raises significant questions about the vitality of the per se rule of illegality in tie-in cases.<sup>6</sup> It apparently rejects the highly theoretical approach to

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2. See *id.* at 2085-87.

3. *Id.* at 2076.

4. Justices O'Connor and Thomas joined in Justice Scalia's dissenting opinion.

5. *Kodak*, 112 S. Ct. at 2092 (Scalia, J., dissenting). The Supreme Court has defined a tying arrangement, also known as a tie-in, as "an agreement by a party to sell one product but only on the condition that the buyer also purchases a different (or tied) product, or at least agrees that he will not purchase that product from any other supplier." *Northern Pac. Ry. v. United States*, 356 U.S. 1, 5-6 (1958).

6. Courts have taken two separate approaches to antitrust allegations under section 1 of the Sherman Act, 15 U.S.C. § 1 (1988) (prohibiting certain conduct in restraint of trade)—the rule of reason and the per se rule. Because most business conduct could be deemed to be "in restraint of trade," the Sherman Act has been interpreted to make illegal only *unreasonable* restraints of trade. Thomas A. Piraino, Jr., *Reconciling the Per Se and Rule of Reason Approaches to Antitrust Analysis*, 64 S. CAL. L. REV. 685, 689 (1991). Under the "rule of reason" standard, courts engage in a factual inquiry into the "competitive circumstances and justifications of business conduct" to determine the reasonableness of any alleged restraint. *Id.*

The "per se" rule of illegality developed in response to the burdensome, and often unnecessary, factual inquiry under the "rule of reason" standard. Under the per se rule, "[p]ractices clearly having a 'pernicious effect on competition' and lacking 'any redeeming virtue' could be conclusively presumed to be illegal without any inquiry into competitive purpose or market effect." *Id.* at 691 (citations omitted). This categorical and

issues of antitrust economics adopted by the Court over the past fifteen years.<sup>7</sup> The decision also declares that the parts and services provided for its own equipment by a single company can themselves constitute relevant markets for antitrust purposes, even though that company has only a small market share in the primary equipment market.<sup>8</sup> The first wave of post-*Kodak* commentary turned to these problems immediately,<sup>9</sup> but their significance is dwarfed by *Kodak*'s inconspicuous but profound alteration of the central term in the vocabulary of antitrust.

Embedded within the "garden variety" summary judgment issues described by the *Kodak* majority and the narrow substantive concerns of the dissent lies a new—and radically expanded—definition of "market power." Because "market power" is a uniform concept in antitrust law and its existence and possession is a precondition to liability for practically every major antitrust offense,<sup>10</sup> the Supreme Court's expansive redefinition of that term will change the nature of the market power inquiry in many, if not all,

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absolutist approach has the weakness of occasional overbreadth, but it reduces litigation time and expense and provides clear guidelines for business. *Id.* at 691-92.

In both the Ninth Circuit Court of Appeals and the Supreme Court, *Kodak* offered several business justifications for its allegedly anticompetitive practices. *Kodak*, 112 S. Ct. at 2079. Although the Ninth Circuit found *Kodak*'s tying agreements to be arguably unlawful per se, *Eastman Kodak Co. v. Image Technical Servs.*, 903 F.2d 612, 617 (9th Cir. 1990), *aff'd*, 112 S. Ct. 2072 (1992), and although the Supreme Court had previously announced on many occasions that good business reasons will not justify per se violations of the antitrust laws, *see, e.g.*, *United States v. Socony-Vacuum Oil Co.*, 310 U.S. 150, 220 (1940) (holding that "the elimination of so-called competitive evils is no legal justification for [anticompetitive] buying programs"); *National Soc'y of Prof'l Eng'rs v. United States*, 435 U.S. 679, 693-95 (1978) (recognizing that safety concerns brought on by fears of competitive bidding are not sufficient to prohibit such bidding in the face of the Sherman Act), the Ninth Circuit directly entertained *Kodak*'s arguments of business justification. *See Kodak*, 903 F.2d at 618-19. The Supreme Court referred to those arguments indirectly, but without criticizing the Ninth Circuit for having heard them. *Kodak*, 112 S. Ct. at 2078-79. The suggestion that such justification may be well-received by the Court undercuts the concept of per se illegality and casts doubt on the continued vitality of the per se rule against tying arrangements.

7. *See infra* notes 130-131 and accompanying text; *see also infra* note 139 (arguing that *Kodak* does not reject arguments based upon economic theory, but counters one theoretical argument with another).

8. *See Kodak*, 112 S. Ct. at 2089-90. *Kodak* controlled almost 100% of the parts market and at least 80% of the service market, thus providing *Kodak* with the power to exclude competition or control prices. *Id.*

9. *See, e.g.*, Neal Stoll & Shepard Goldfein, *Kodak: A Barrier Against Naked Economic Theory*, N.Y. L.J., June 16, 1992, at 3; Jonathan Jacobson, *Kodak: Daguerreotype or Laser Projection?*, N.Y. L.J., July 30, 1992, at 5.

10. *See infra* notes 13-20 and accompanying text.

future antitrust cases.<sup>11</sup> The implications of this change are momentous: after *Kodak*, every company, no matter how small, may be subject to the heightened form of antitrust scrutiny previously reserved exclusively for firms with a high share of the relevant market.

This Article will analyze the quiet revolution worked by the *Kodak* case. In particular, Part I will discuss the central and pervasive role that antitrust doctrine ascribes to market power analysis. Part II will examine briefly the phenomenon of imperfect information, describe some of its more common causes, and set forth some of the difficulties inherent in any judicial effort to remedy market failures on a case-by-case basis. Part III will review the role assigned by the *Kodak* Court to informational failures in the determination of market power and will explore the implications of this new role—and that of other forms of market failure—for antitrust theory and practice. Finally, Part IV will propose a solution for limiting the doctrinal and commercial harm that *Kodak* could cause, a solution made imperative by the need to constrain the far-reaching implications of *Kodak* discussed in Part III.

## I. THE CRITICAL ROLE OF MARKET POWER IN ANTITRUST LAW

Market power is the focal point of antitrust law. All the major antitrust statutes concentrate on either preventing its formation or prohibiting its misuse.<sup>12</sup> The legality of attempts to monopolize, form joint ventures and effect corporate mergers depends in each case upon whether those activities would be likely to create market power for the participants.<sup>13</sup> A firm with market power is held to a higher standard of business conduct than one without it; such a firm

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11. *Kodak* is limited by its terms to “difficult and costly” information gaps and “switching costs” in markets for “complex durable goods” only. However, the rationale of *Kodak*’s new approach to determining market power extends logically and easily to other types of market imperfections in other kinds of markets. See *infra* notes 141-153 and accompanying text.

12. See, e.g., Sherman Act, 15 U.S.C. §§ 1, 2 (1988) (declaring combinations or conspiracies in restraint of trade illegal, and making it a felony to monopolize or attempt to monopolize trade); Clayton Act §§ 3, 7, 15 U.S.C. §§ 14, 18 (1988) (making it unlawful to sell goods on the condition that the buyer refrain from dealing with a competitor, where the effect would substantially lessen competition or tend to create a monopoly, or to buy the stock of a competitor where it would have the same effect); FTC Act § 5, 15 U.S.C. § 45 (1988) (declaring unfair methods of competition unlawful).

13. See *United States v. Empire Gas Corp.*, 537 F.2d 296, 298-99 (8th Cir. 1976) (holding that the prospect of attaining market power is critical to a determination of the “dangerous probability of success,” an element of the attempted monopolization offense), *cert. denied*, 429 U.S. 1122 (1977); see also *United States v. Continental Can Co.*, 378 U.S. 441, 461 (1964) (evaluating the legality of a proposed merger by reference to post-merger market power).

is obliged, under certain circumstances, to share the source of its power with rivals<sup>14</sup> and is required, under other circumstances, to continue cooperating with competitors when it might prefer to do otherwise.<sup>15</sup> All cases judged under the "rule of reason" standard—the increasingly dominant decisional paradigm<sup>16</sup>—consider market power a highly relevant factor, and certain legally suspect contractual arrangements, such as "tie-ins," are unlawful per se only if the seller has market power in the tying product.<sup>17</sup>

The concept of market power has a uniform meaning throughout antitrust jurisprudence. When courts discuss the kind or amount of market power necessary to define a "monopolist,"<sup>18</sup> for example, they are implicitly describing the same sort of "market power" used to decide tie-in cases, group boycotts,<sup>19</sup> and all the

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14. See *Otter Tail Power Co. v. United States*, 410 U.S. 366, 377-80 (1973) (holding that the refusal to permit a municipality access to an electric power grid when such access was necessary for independent power generation was a violation of the Sherman Act).

15. See *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585, 600-05 (1985) (holding that the termination of participation in a multi-area lift ticket by a monopolist solely for exclusionary reasons violated the Sherman Act).

16. See, e.g., *National Collegiate Athletic Ass'n v. Board of Regents*, 468 U.S. 85, 103-04 (1984); *Broadcast Music, Inc. v. Columbia Broadcasting Sys.*, 441 U.S. 1, 8 (1979); *National Soc'y of Prof'l Eng'rs v. United States*, 435 U.S. 679, 688 (1978); Piraino, *supra* note 6, at 686 ("[I]n the past ten years, the per se rule has been applied less frequently, and the rule of reason has achieved a dominant role in antitrust analysis.").

17. See *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 13-14 (1984).

18. According to the Supreme Court, "market power" is a necessary, but not a sufficient, precondition to the possession of "monopoly power." In *Kodak*, for example, the Court recited the axiom that "[m]onopoly power under § 2 requires, of course, something greater than market power under § 1." *Eastman Kodak Co. v. Image Technical Servs.*, 112 S. Ct. 2072, 2090 (1992). Traditionally, firms have converted market power to monopoly power by willfully acquiring or maintaining the former or by engaging in some type of impermissible exclusionary conduct. See, e.g., *Board of Regents*, 468 U.S. at 112 (holding that control over an entire market for college football television broadcasts constituted a monopoly); *United States v. Grinnell Corp.*, 384 U.S. 563, 570-71 (1966) (holding that possession of 87% of the relevant market share and willfully maintaining such a share constituted a monopoly); *American Tobacco Co. v. United States*, 328 U.S. 781, 797 (1946) (holding that a conspiracy to control the interstate tobacco market with intent to exclude competitors constituted a monopoly offense).

19. See, e.g., *Northwest Wholesale Stationers v. Pacific Stationery & Printing Co.*, 472 U.S. 284, 298 (1985) (holding that a plaintiff challenging expulsion from a group buying cooperative must show that "the cooperative possesses market power or unique access to a business element necessary for effective competition," in order to satisfy the per se test of illegality); see also *FTC v. Indiana Fed'n of Dentists*, 476 U.S. 447, 458 (1986) (holding that the per se approach in group boycott cases "has generally been limited to cases in which firms with market power boycott suppliers or customers in order to discourage them from doing business with a competitor").

"Group boycotts," also known as "concerted refusals to deal," generally involve "joint efforts by a firm or firms to disadvantage competitors by 'either directly denying

other antitrust offenses in which market power is a necessary element.<sup>20</sup> Courts are also describing, or at least they had described before *Kodak*, a concept applicable to all markets, without exception. Any change in the judicial definition of market power for one purpose, or for one type of offense, would therefore reverberate throughout antitrust law, altering that crucial definition for almost all purposes, in all markets and for all offenses that involve the market power concept.

Despite its importance to antitrust law, the notion of "market power" lacks a precise judicial definition. The Supreme Court has described the term variously as the "power to set higher than competitive prices,"<sup>21</sup> "the ability to raise prices above those that would be charged in a competitive market,"<sup>22</sup> and "the power to control prices or exclude competition."<sup>23</sup> Obviously, these definitions are not mutually consistent. Additionally, each contains problems of measurement that make its application by a trial court highly problematic.<sup>24</sup> These problems, among others, have spawned scholarly demands that courts employ a more economically precise definition

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or persuading or coercing suppliers or customers to deny relationships the competitors need in the competitive struggle.' " *Northwest Wholesale Stationers*, 472 U.S. at 294 (citations omitted).

20. Although the Supreme Court has never explicitly acknowledged that the same notion of market power applies throughout antitrust, it has acted in a manner consistent with that premise. When discussing "market power" in the tying context, for example, the Supreme Court regularly quotes, and specifically relies upon, definitions of market power taken from cases dealing with monopolization. See, e.g., *Kodak*, 112 S. Ct. at 2080-81 (quoting and citing, in its discussion of the traditional definition of market power, *Grinnell Corp.*, 384 U.S. at 571, and *United States v. E.I. du Pont de Nemours & Co.*, 351 U.S. 377, 391 (1956), both monopolization cases).

21. *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 590 (1986).

22. *Board of Regents*, 468 U.S. at 109 n.38.

23. *E.I. du Pont de Nemours*, 351 U.S. at 391. Strictly speaking, this is not a definition of market power, but of monopoly power. Economists generally consider the terms to be synonymous. See Richard Schmalensee, Comment, *Another Look at Market Power*, 95 HARV. L. REV. 1789, 1789 n.1 (1982). Some antitrust scholars have argued persuasively that antitrust courts have used, and should use, the terms "market power" and "monopoly power" interchangeably. See Thomas G. Krattenmaker & Steven C. Salop, *Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power over Price*, 96 YALE L.J. 209, 219 (1986) (arguing that antitrust opinions that facially state distinct general standards for each practice actually "express concern with an identical, underlying antitrust policy issue: the undue, unfair, or anticompetitive exclusion of rivals by their competitors").

24. See, e.g., William M. Landes & Richard A. Posner, *Market Power in Antitrust Cases*, 94 HARV. L. REV. 937, 939-52 (1981). The measurement problems include, for example, assessing the "competitive price" by extrapolating from the price levels in an actual market to those in a hypothetically "competitive" one; determining how much price dispersion, if any, can exist before the market seems uncompetitive; and defining with some specificity terms such as "control" of price and "exclusion" of competition. *Id.*



of market power,<sup>25</sup> and have helped to explain the adoption by most courts of the use of "market share" as a practical, shorthand method for measuring market power.

The use of market share as a proxy for market power dates back at least as far as Judge Learned Hand's famous opinion in the *Alcoa Case*.<sup>26</sup> The particulars of market share methodology have changed very little over the years.<sup>27</sup> As Professors Landes and Posner have stated, "[t]he standard method of proving market power in antitrust cases involves first defining a relevant [product and geographic] market in which to compute the defendant's market share, next computing that share, and then deciding whether it is large enough to support an inference of the required degree of market power."<sup>28</sup> This methodology, however, may be problematic. High market share may overstate true market power, while low market share may understate it.<sup>29</sup> Other factors ignored by conventional market share analysis, such as ease or difficulty of entry into the market, persistently high profits, and the presence in the market of unused capacity, can often help present a more precise picture of true market power.<sup>30</sup> Accordingly, some federal courts have chosen to modify their techniques for assessing market power by permitting, for example, evidence of the absence of entry barriers to a particular market to offset a defendant's high market share.<sup>31</sup> The Supreme Court

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25. See Krattenmaker & Salop, *supra* note 23, at 253-66; Landes & Posner, *supra* note 24, at 976-82.

26. *United States v. Aluminum Co. of Am.*, 148 F.2d 416, 424 (2d Cir. 1945) (holding that a firm with more than 90% market share has a monopoly, a firm with less than 33% does not, and a firm with 60% or 64% is "doubtful").

27. Although the Supreme Court has never expressly ratified the market share criteria adopted by Judge Hand in the *Alcoa Case*, in no case prior to *Kodak* had the Court found "market power" in a firm with a market share of less than 50%. Some lower federal courts have expressly allowed other factors—such as the strength of consumer demand, the absence of effective barriers to entry, or the apparent vigor of interbrand competition—some weight in market power analysis. See, e.g., *Broadway Delivery Corp. v. United Parcel Serv.*, 651 F.2d 122, 127-30 (2d Cir.) (suggesting that a firm with low market share may possess monopoly power), *cert. denied*, 454 U.S. 968 (1981); *Forro Precision, Inc. v. International Bus. Machs. Corp.*, 673 F.2d 1045, 1058-59 (9th Cir. 1982) (leaving open the possibility that a firm with a market share of 35% may have market power, if adequate evidence of the existence of other factors is introduced). Before *Kodak*, however, the Supreme Court had never considered factors other than market share when assessing a firm's market power.

28. Landes & Posner, *supra* note 24, at 938.

29. See 2 PHILLIP E. AREEDA & DONALD F. TURNER, *ANTITRUST LAW* ¶ 507 (1978).

30. For a full discussion of the shortcomings of the market share proxy as an accurate index of market power, see generally Schmalensee, *supra* note 23.

31. See *Ball Memorial Hosp. v. Mutual Hosp. Ins.*, 784 F.2d 1325, 1335 (7th Cir. 1986) (finding that Blue Cross and Blue Shield (the "Blues") had no power in the market for health insurance, regardless of their market share, because "[n]ew firms may

has never adopted or approved any of these modifications.

As proxy measures go, market share has proved both durable and useful. For almost fifty years it has remained the keystone of market power analysis, virtually unaltered by the Supreme Court, even while the Court was extending market power analysis to new areas of antitrust law. When the Court declared in 1984 that "market power" in the tying product was necessary to make a tying arrangement unlawful *per se*,<sup>32</sup> the Court applied its traditional test of market power—the market share proxy—in what was then a new context. The following year, when it added a market power requirement to the *per se* version of the group boycott offense, the Court used the term "market power" without defining or describing it at all,<sup>33</sup> apparently convinced that the meaning of "market power" was so well understood that it needed no further elaboration.

The Supreme Court has remained particularly faithful to the market share proxy. For the past forty years,<sup>34</sup> the Court has consistently repeated the rule—although occasionally altering its precise wording—that the existence of market power "ordinarily may be inferred from the predominant share of the market."<sup>35</sup> While the Court has consistently suggested by its use of the word "ordinarily" that the market share proxy was theoretically subject to some set of limiting circumstances, prior to *Kodak* it had never either intimated what those circumstances might be or applied a standard for ascer-

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enter easily [since] insurers need only a license and capital . . . [and t]he Blues do not own any assets that block or delay entry"); *see also* *Indiana Grocery v. Super Valu Stores*, 864 F.2d 1409, 1414 (7th Cir. 1989) (stating that high market share translates to market power "only when sales reflect control of the productive assets in the business, for only then does it reflect an ability to curtail total market output"); *Ocean State Physicians Health Plan v. Blue Cross*, 692 F. Supp. 52, 69 (D.R.I. 1988) ("In a regulated industry, such as health care insurance, a heavy reliance on market share statistics probably would be an inaccurate or misleading indication of monopoly power."), *aff'd*, 883 F.2d 1101 (1st Cir. 1989), *cert. denied*, 494 U.S. 1027 (1990).

Commentators who recognize that other economic factors may counterbalance the presumptive power of firms with high market share argue nevertheless that firms with small market share ("below 50 or 60 percent") should enjoy a presumption of powerlessness. PHILLIP E. AREEDA & HERBERT HOVENKAMP, *ANTITRUST LAW* ¶ 518.3c (Supp. 1991).

32. *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 26-27 (1984).

33. *Northwest Wholesale Stationers v. Pacific Stationery & Printing Co.*, 472 U.S. 284, 296-98 (1985).

34. *See Eastman Kodak Co. v. Image Technical Servs.*, 112 S. Ct. 2072 (1992); *Jefferson Parish Hosp. Dist.*, 466 U.S. at 2; *Fortner Enters. v. United States Steel Corp.*, 394 U.S. 495 (1969); *United States v. Grinnell Corp.*, 384 U.S. 563 (1966); *United States v. E.I. du Pont de Nemours & Co.*, 351 U.S. 377 (1956); *Times-Picayune Publishing Co. v. United States*, 345 U.S. 594 (1953).

35. *Grinnell*, 384 U.S. at 571.

taining market power that actually differed from a strict market share approach. For the Supreme Court, market share had become the functional equivalent of market power.

The durability of the market share proxy stems in part from the practical benefits that it confers on antitrust courts and prospective antitrust defendants. While a firm may be unable to determine its marginal cost,<sup>36</sup> or the pertinent elasticities of demand and supply,<sup>37</sup> it can readily identify its competitors and gauge, with a reasonable degree of accuracy, its share of the relevant product market. The relative ease with which firms can estimate their own degree of market share—and hence market power—doubtless enables firms to estimate their risk of being subjected to the stricter scrutiny imposed on firms with high market share, and diminishes the prospect of costly and time-consuming antitrust litigation. Similarly, the availability of the market share surrogate provides courts with a workable methodology in an area that otherwise could be extremely complicated. It is not difficult to understand, therefore, why the market share proxy has endured so long in its traditional form.

Because the concept of “market power” has had a consistent meaning for all companies, in all markets, and for all antitrust violations, a change in the methodology for determining its possession would effectively restructure most of antitrust law. Until *Kodak*, the Supreme Court had been understandably reluctant to engage in that kind of restructuring.

## II. PERFECT COMPETITION, MARKET IMPERFECTIONS AND INFORMATION GAPS: A BRIEF OVERVIEW

In *Kodak*, the Supreme Court rejected the market share proxy in favor of an analysis that recognizes the monopoly-like power that can accrue to firms with a small market share in markets made imperfect by the presence of “difficult and costly” information gaps

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36. “Marginal cost” represents the “extra or additional cost of producing another unit of output.” PAUL A. SAMUELSON & WILLIAM D. NORDHAUS, *ECONOMICS* 463 (12th ed. 1985). In economic terms, “market power” is simply the ability to set price above marginal cost. See Landes & Posner, *supra* note 24, at 939 (“Under perfect competition, price equals marginal cost, so if a firm’s price is above its marginal cost, the implication is that . . . it has at least some market power.”).

37. Elasticity of demand, also called price elasticity of demand, measures the “degree to which quantity [of a product] demanded by buyers responds to a price change” in that good. Elasticity of supply, also referred to as price elasticity of supply, measures the “percentage change in quantity supplied divided by the percentage change in price” or, in other words, the responsiveness of suppliers to an increase in price. SAMUELSON & NORDHAUS, *supra* note 36, at 912. Elasticities of demand and supply are relevant to the determination of “market power.” See Landes & Posner, *supra* note 24, at 939-44.

and "very high" switching costs.<sup>38</sup> Information gaps and switching costs are two species of what economists generally refer to as a "market failure," which may arise from any "imperfection in the price system that prevents an efficient allocation of resources."<sup>39</sup> Because *Kodak's* new analytical paradigm explicitly recognizes that the existence in a market of certain informational imperfections can make small firms in that market "powerful" in the antitrust sense, a brief discussion of market imperfection is in order.

Perfect competition—that is, the absence of market failure—is easily defined. Paul Samuelson and William Nordhaus, authors of a well-known university textbook on economics,<sup>40</sup> define it generally as the presence in a market for a particular good of "a sufficient number of firms or degree of rivalry such that no one firm can affect the price of that good."<sup>41</sup> Other definitions of perfect competition, offered by law professors or policy analysts, differ slightly in their wording but are similar in substance.<sup>42</sup> Perfectly competitive markets demonstrate the following four characteristics: (1) perfect product homogeneity; (2) large numbers of buyers and sellers; (3) perfect knowledge of market conditions by all market participants; and (4) the complete mobility of all productive resources.<sup>43</sup>

Despite the ease with which economists and law professors can describe the theory of perfect competition and its necessary preconditions, they are hard-pressed to identify any market that is actually either perfectly competitive or perfectly demonstrative of even one of the four preconditions of perfect markets. Almost every real market contains some product heterogeneity,<sup>44</sup> lacks sufficiently large

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38. *Eastman Kodak Co. v. Image Technical Servs.*, 112 S. Ct. 2072, 2085, 2087 (1992).

39. SAMUELSON & NORDHAUS, *supra* note 36, at 909.

40. SAMUELSON & NORDHAUS, *supra* note 36.

41. *Id.* at 47. George Stigler, the father of modern price theory, defined perfect competition as that state of the market "in which the individual buyer or seller does not influence the price by his purchases or sales"; in other words, a market in which "the elasticity of supply facing any buyer is infinite, and the elasticity of demand facing any seller is infinite." GEORGE J. STIGLER, *THE THEORY OF PRICE* 87 (3d ed. 1966).

42. See, e.g., HERBERT HOVENKAMP, *ECONOMICS AND FEDERAL ANTITRUST LAW* 1-2 (1985) ("A competitive market is one in which 1) every good is priced at the cost of producing it, giving the producers and sellers only enough profit to maintain investment in the industry; and 2) every person willing to pay this price will be able to buy it."); DAVID L. WEIMER & AIDAN R. VINING, *POLICY ANALYSIS, CONCEPTS AND PRACTICE* 264 (2d ed. 1992) ("In an efficient market the equilibrium price equals the marginal social cost of production.").

43. See HOVENKAMP, *supra* note 42, at 2; STIGLER, *supra* note 41, at 88.

44. In most markets, sellers attempt to distinguish their products from those of their competitors, either by actually making them different or by making claims that they are

numbers of buyers or sellers, displays significant gaps of information, and places some brake on the mobility of resources.<sup>45</sup> These flaws, of course, are not the only barriers to perfectly functioning markets. Antitrust law has historically focused on market imperfections that have been created by the unlawful acquisition or abuse of monopoly power and by the conspiratorial activity of competitors.<sup>46</sup> These barriers to perfect competition are, in an important sense, produced by market participants, not by the workings of the market itself, and for that reason are analytically distinguishable from structural "market failures."

In particular, imperfect information is a market failure because inadequate, incorrect, or incomplete product information will prevent consumers from obtaining perfect knowledge about that market, causing the market to move further away from the competitive ideal.<sup>47</sup> The failure of a market to generate perfect information might seem counterintuitive: sellers and buyers have strong economic incentives respectively to disseminate and to gather information, and theory suggests that if the production of information were costless to sellers, disclosure would be virtually complete.<sup>48</sup> All markets, however, demonstrate information gaps, for a broad range of reasons.

Gaps in consumer information can arise because the production of complete product information is expensive. Often, a company choosing to produce that information, in spite of its cost, will be unable to realize the full value of its efforts.<sup>49</sup> So-called "public good" properties<sup>50</sup> of information often deter its production and

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unique. The presence of these real and claimed differences between products in the same market complicates the task of comparison for consumers, makes price a less reliable indicator of value, and occasionally creates enough demand for a particular product to allow it to command a premium above the market price. See SAMUELSON & NORDHAUS, *supra* note 36, at 508-11, 536-38.

45. See HOVENKAMP, *supra* note 42, at 14.

46. See, e.g., *infra* notes 70-71.

47. See, e.g., Howard Beales et al., *The Efficient Regulation of Consumer Information*, 24 J.L. & ECON. 491, 492 (1981) (noting that without sufficient information about price, quality and other relevant product attributes, "the incentive to compete on price and quality will be weakened, and consumer welfare will be reduced").

48. *Id.* at 502. For buyers, the increase in real income resulting from increased efficiency in purchase decisions is a strong economic incentive to obtain product information. On the part of sellers, the economic gain from disclosing information which distinguishes their product and makes it a more attractive purchase decision is obvious. *Id.*

49. See *id.* at 502-04.

50. Economists define a "public good" as one "whose benefits may be provided to all people . . . at no more cost than that required to provide it to one person. The

dissemination by private parties;<sup>51</sup> once released, information compiled by one firm can be appropriated by others who have contributed nothing to its production, who sometimes pay nothing for its use, and who can frequently re-use or resell the information, without diminishing its value. Consequently, would-be producers of information cannot usually capture its full value for themselves, and will be dissuaded from producing all the information necessary to the effective functioning of their market. The underproduction of information can thus represent a rational response by sellers to structural market flaws that they cannot correct individually.<sup>52</sup>

Obviously, not all information gaps are structural. Sellers can create some informational problems and exacerbate others that they did not create. For example, in the short run, spreading false information about one's product, or withholding negative information about it, can be distinctly profitable, as can issuing misinformation about the products of one's competitors. Sellers possessed of market power in a particular product market may have incentives to misuse, or create, imperfect information.<sup>53</sup> For their part, consumers may fail to gather adequate product information or to evaluate rationally that which they do acquire.<sup>54</sup>

From a causal perspective, information gaps can arise from one or more of three sources: individual sellers can intentionally initiate them,<sup>55</sup> buyers can create them through ignorance or neglect, or the market may generate them structurally, without "fault" on the part of either sellers or buyers. Two or three of these sources can combine in some proportion to jointly produce imperfect information. Recent academic literature about the legal implications of imperfect information has assiduously avoided any discussion of the causation problem<sup>56</sup> for several reasons: imperfect information, however

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benefits of the good are indivisible and people cannot be excluded." SAMUELSON & NORDHAUS, *supra* note 36, at 913.

51. *Id.* at 48-49, 713-15.

52. *Id.*

53. See Beales et al., *supra* note 47, at 507. See generally Steven Salop, *The Noisy Monopolist: Imperfect Information, Price Dispersion, and Price Discrimination*, 44 REV. ECON. STUD. 393 (1977) (arguing that sellers exploit differences in levels of consumer information to maximize gain from poorly informed consumers).

54. See Beales et al., *supra* note 47, at 506.

55. Any conspiracy by sellers to restrict the flow of relevant product information would, of course, violate section 1 of the Sherman Act. See Sherman Act, 15 U.S.C. § 1 (1988) ("Every . . . conspiracy, in restraint of trade or commerce . . . is declared to be illegal.").

56. See generally Richard Craswell, *Tying Requirements in Competitive Markets: The Consumer Protection Issues*, 62 B.U. L. REV. 661 (1982) (not discussing the causation problems of imperfect information); Alan Schwartz & Louis L. Wilde, *Intervening in Markets on the*

caused, is a market-wide problem; its cause may be structural in nature; and it may be impossible to allocate responsibility for jointly caused imperfections.

Additionally, recent commentaries have been openly skeptical of the extent to which any methodology can accurately measure the anticompetitive effects of imperfect information in a particular market.<sup>57</sup> This skepticism derives from the fact that in most markets, and especially in competitive ones, buyers and sellers have strong incentives to close information gaps on their own. These incentives may fail, however, when buyers and sellers either affirmatively desire the particular information gaps,<sup>58</sup> or recognize that the cost of eliminating the imperfections exceeds the harm done to the market by their continued existence.<sup>59</sup> Consequently, causation problems and the attendant difficulties of measurement have led commentators to conclude that information failures require the kind of market-wide, regulatory solutions that courts are institutionally incapable of fashioning.<sup>60</sup>

### III. THE *KODAK* DECISION: MARKET POWER REDEFINED

If *Kodak* had done no more than replace the market share proxy for market power with some new test, its impact on antitrust law would have been considerable. But by basing its new test on the presence of informational imperfections in the relevant market, the Court has married antitrust jurisprudence to the field of information economics, called by one commentator "the most confusing branch

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*Basis of Imperfect Information: A Legal and Economic Analysis*, 127 U. PA. L. REV. 630 (1979) (not discussing causation).

57. See Craswell, *supra* note 56, at 688 (suggesting that a distinction between procompetitive and anticompetitive tie-ins on the basis of an empirically-grounded cost-benefit analysis is "so difficult and so subjective" that it would "rarely if ever yield unequivocal conclusions"); Schwartz & Wilde, *supra* note 56, at 660-62 (discussing difficulties inherent in attempts to determine when market price has become significantly distorted from that which would prevail in a hypothetically perfectly informed market).

58. See Craswell, *supra* note 56, at 686-89 (explaining how buyers and sellers use imperfect information as a means of allocating risk).

59. See *id.* at 689-90.

60. See *id.* at 700 (commenting that in the context of tying arrangements, assessment of the kind of market failure caused by imperfect information "requires evidence not usually gathered in antitrust cases . . . [and] if an information imperfection is found to exist, the best remedy . . . may not even be available under the antitrust laws"); see also Schwartz & Wilde, *supra* note 56, at 678 (arguing that "courts should play a more limited role in responding to information problems than they do at present" and applauding "the wisdom of the recent trend to place greater reliance on administrative enforcement").

of the dismal science,"<sup>61</sup> with its attendant problems of measurement and remedy. This marriage threatens to disrupt thoroughly the course of antitrust law, burdening the lower courts with a slew of difficult problems, and hopelessly confusing the business community about the boundaries of antitrust enforcement.

### A. *The Decision Itself*

In addition to its well-known lines of photographic equipment and film, the Eastman Kodak Company makes and sells high-volume photocopier and micrographics equipment.<sup>62</sup> Replacement parts for this equipment are manufactured either by Kodak itself or to its specifications by original equipment manufacturers (OEMs) and are the only parts compatible with Kodak equipment.<sup>63</sup> Eastman Kodak sells post-warranty service for the equipment separately, either through annual service contracts, which include all necessary parts, or on a per-call basis.<sup>64</sup>

Beginning in the early 1980s, a number of independent service organizations (ISOs) began to service Kodak equipment using parts purchased primarily from OEMs, but also using parts purchased from Kodak itself, from existing Kodak customers, or from parts brokers.<sup>65</sup> By the mid-1980s, the ISOs had made substantial inroads into Kodak's share of the service market for Kodak equipment.<sup>66</sup> This development prompted Kodak to initiate a policy of selling replacement parts for its equipment only to buyers who agreed to use Kodak service exclusively or to repair their own machines.<sup>67</sup> In conjunction with this policy, Kodak tried to limit the ISOs' access to other sources of Kodak parts. It agreed with the OEMs that they would sell Kodak parts only to Kodak, pressured parts brokers and Kodak equipment owners not to sell parts to ISOs and attempted to restrict the availability of used Kodak machines.<sup>68</sup> These measures succeeded in drying up the ISOs' sources of Kodak parts, compelling their customers to switch to Kodak for service, thereby forcing many ISOs out of business and causing others to

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61. Beales et al., *supra* note 47, at 503.

62. Eastman Kodak Co. v. Image Technical Servs., 112 S. Ct. 2072, 2077 (1992).

63. *Id.*

64. *Id.*

65. *Id.* Parts brokers acquired Kodak parts either by purchasing them directly from Eastman Kodak or by stripping them from used Kodak equipment. *Id.* at 2077 n.2.

66. *Id.* at 2077.

67. *Id.*

68. *Id.* at 2078.



lose substantial revenues.<sup>69</sup>

The measures also prompted the ISOs to accuse Eastman Kodak of violating the antitrust laws. In 1987, they brought suit, alleging that Kodak had violated section 1 of the Sherman Act<sup>70</sup> by unlawfully tying the sale of service for Kodak machines to the sale of parts, and that Kodak had violated section 2 of the Act<sup>71</sup> by unlawfully monopolizing and attempting to monopolize the service market for Kodak copying and micrographic machinery.<sup>72</sup> After only limited discovery and without a hearing, the trial court granted Kodak's motion for summary judgment.<sup>73</sup> Finding no evidence that Kodak had tied the sale of service or parts to the sale of its equipment—but overlooking, in the process, the alleged tie between parts and service—the court concluded that while Kodak may have had a “natural monopoly” in the market for Kodak brand parts, its unilateral refusal to sell those parts to the ISOs did not violate Section 2.<sup>74</sup>

By a divided vote, the Court of Appeals for the Ninth Circuit reversed.<sup>75</sup> With regard to the Section 2 claims, the court determined that the ISOs had offered evidence sufficient to create an issue of fact as to whether Kodak's restrictive parts policy was “anticompetitive” and “exclusionary” and involved “a specific intent to monopolize.”<sup>76</sup> As to the tying claim, the appellate court found that parts and service were two separate products that *could*

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69. *Id.*

70. Section 1 of the Sherman Act provides in pertinent part: “Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is declared to be illegal.” 15 U.S.C. § 1 (1988).

71. Section 2 of the Sherman Act states:

Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a felony, and, on conviction thereof, shall be punished by fine not exceeding one million dollars if a corporation, or, if any other person, one hundred thousand dollars, or by imprisonment not exceeding three years, or by both said punishments, in the discretion of the court.

15 U.S.C. § 2 (1988), *amended by* 15 U.S.C. § 2 (Supp. II 1990) (increasing fines for violation to \$10,000,000 and \$350,000 for corporations and other persons, respectively).

72. *Kodak*, 112 S. Ct. at 2078.

73. *Image Technical Servs. v. Eastman Kodak Co.*, 1989-1 Trade Cas. (CCH) ¶ 68,402 (N.D. Cal. 1988), *rev'd*, 903 F.2d 612 (9th Cir. 1990), *aff'd*, 112 S. Ct. 2072 (1992).

74. *Id.*

75. *Image Technical Servs. v. Eastman Kodak Co.*, 903 F.2d 612 (9th Cir. 1990), *aff'd*, 112 S. Ct. 2072 (1992).

76. *Id.* at 620.

be tied to each other.<sup>77</sup> The ISOs, according to the Ninth Circuit, had produced enough evidence to indicate that Kodak had in fact tied service to parts and that a factual issue existed as to whether Kodak had the requisite market power in parts—the tying product—to force or induce some of its customers to purchase Kodak-offered service—the tied product—that they would not otherwise buy.<sup>78</sup> The court rejected Kodak's purported business justifications as either pretextual or illogical, and remanded the case for trial.<sup>79</sup>

The Ninth Circuit's decision in *Kodak* hinged entirely upon the determination that Eastman Kodak could arguably possess power in the after-market for its own parts. Because it was conceded on appeal that the interbrand markets for Kodak's equipment were competitive,<sup>80</sup> Kodak relied on neoclassical economic theory to argue that it could not possibly have power in the after-market for its own parts.<sup>81</sup> Kodak claimed that if it attempted to exercise its purported power in the parts market by raising prices, rational equipment buyers would regard the rise in the price of parts as an increase in the overall price of the equipment.<sup>82</sup> Because the interbrand equipment markets were concededly competitive, any increase in the overall price of Kodak's product would lead inevitably to lost sales, not to increased revenues. For that reason, Kodak contended, it could exercise no real power over buyers of its parts.<sup>83</sup> Without power in the market for its own parts, Kodak would be legally incapable of committing any of the antitrust violations alleged by the ISOs.<sup>84</sup>

The Ninth Circuit recognized the theoretical force of Kodak's

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77. *Id.* at 615-16.

78. *See id.* at 616.

79. *See id.* at 618, 620-21. Judge Wallace dissented. While he agreed that Kodak's business practices might constitute a tying arrangement, he argued that because the interbrand market for copiers was concededly competitive, Eastman Kodak could not have any power in the market for its own replacement parts. *Id.* at 621 (Wallace, J., dissenting). The majority was wrong, he argued, to reject Kodak's argument as too theoretical: "power in the primary interbrand market is a prerequisite to power in the derivative market for replacement parts." *Id.* at 623 (Wallace, J., dissenting).

80. *Id.* at 616 n.3 ("Appellants do not dispute Kodak's assertion that it lacks market power in the interbrand markets.").

81. For a broad introduction to neoclassical economic theory, see STIGLER, *supra* note 41.

82. *See Kodak*, 903 F.2d at 616.

83. *Id.*

84. *Id.*

argument but rejected it nevertheless.<sup>85</sup> Instead, the court accepted the contention of the ISOs that the interbrand equipment market in which Eastman Kodak operated did not function as price theory would predict, because it contained certain "imperfections" that allowed Kodak to exert in fact the kind of monopoly power that was theoretically unavailable to it.<sup>86</sup> The court asserted that "[m]arket imperfections can keep economic theories about how consumers will act from mirroring reality."<sup>87</sup>

To the Ninth Circuit, moreover, it was legally irrelevant that the ISOs had neither conducted any market analysis nor specified any particular "imperfections" in the interbrand markets for equipment.<sup>88</sup> Rather, it sufficed that the ISOs had presented evidence of "actual events" from which a trier of fact could conclude that Kodak had power in the interbrand equipment market.<sup>89</sup> Consequently, the court concluded that power in the interbrand equipment market was not the sole basis for power in the intrabrand parts market; "[s]ome strength in the interbrand market, although short of actual market power, can combine with other factors to yield power in an after-market."<sup>90</sup>

The Supreme Court granted certiorari, in part to determine whether Kodak's lack of market power in service and parts "must be assumed when such power is absent in the equipment market."<sup>91</sup>

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85. *Id.* at 617 (explaining that "Kodak's desire to attract new customers might . . . keep it from charging supercompetitive prices for service" but finding the record "not fully developed on this issue").

86. *Id.* It appears from the opinion of the Ninth Circuit that the ISOs first raised the issue of imperfections in the copier and micrographic markets during the course of arguing that the district court's grant of summary judgment should be reversed. *Id.* at 616.

87. *Id.* at 617.

88. *Id.* According to the court, to require plaintiffs to present such evidence "would elevate theory above reality." *Id.*

89. *Id.* There was evidence of three "actual events": Kodak had allegedly charged higher prices than the ISOs for service of allegedly inferior quality; competition from ISOs sometimes forced down the price that Kodak charged for service; and rather than switch to competitors' systems, some owners of "large Kodak equipment packages" paid "higher prices" for Kodak service. *Id.*

90. *Id.* at 618. The court failed to elaborate on how much "strength" was needed, how far "short" of actual market power that strength could be, what "other factors" might be relevant, and how that "strength" and those "other factors" could combine to yield power in the after-market.

91. *Eastman Kodak Co. v. Image Technical Servs.*, 112 S. Ct. 2072, 2076 (1992). More precisely, this is the majority's characterization of one of the issues raised by Kodak. In its petition for certiorari, Eastman Kodak raised three questions:

1. Does a vertically integrated equipment manufacturer that lacks market power in fiercely competitive interbrand equipment markets violate the Sherman Act by declining to sell replacement parts to ISOs?
2. Can respondents properly base their per se tying claim on the alleged tying of two single brand

Because no other court of appeals had allowed after-market power to be inferred in the absence of primary market power,<sup>92</sup> and because the Supreme Court had explicitly rejected, just eight years earlier, an argument that it should consider informational imperfections in its market power analysis,<sup>93</sup> one might have confidently predicted a reversal of the Ninth Circuit's decision. Affirmance of the Ninth Circuit's opinion would effectively substitute a cumbersome, fact-specific methodology for the more theoretical analysis that had characterized the Court's recent antitrust decisions, thereby significantly expanding the number and complexity of antitrust trials and markedly reducing the utility of summary judgment at a time when the Court seemed to be moving in the opposite direction.<sup>94</sup>

Remarkably, the Supreme Court affirmed.<sup>95</sup> Like the Ninth Circuit, the Court rejected Kodak's argument that, in a competitive market for equipment, a seller's higher service prices lead directly to lost equipment sales, and hence to a decrease in its revenues.<sup>96</sup> Justice Blackmun, writing for the Court, found the theory "intuitively appealing,"<sup>97</sup> but discounted it because such a theory "may not accurately explain the behavior of the primary and derivative markets for complex durable goods."<sup>98</sup> The possible existence in those markets of significant information gaps and switching costs "foil[s] the simple assumption" that the equipment and service markets act as perfect complements to one another.<sup>99</sup>

In particular, the Court noted that from the consumers' perspective, "lifecycle pricing" of complex, durable equipment is com-

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aftermarkets (tying Kodak service to Kodak parts) which are wholly derivative of competitive interbrand markets? 3. Does speculation about unspecified market imperfections constitute the "more persuasive evidence" required under *Matsushita* to defeat summary judgment in an economically implausible antitrust case?

Petition for Writ of Certiorari at i, *Eastman Kodak Co. v. Image Technical Servs.*, 111 S. Ct. 2823 (1991) (No. 90-1029).

92. See *Kodak*, 112 S. Ct. at 2100 (Scalia, J., dissenting).

93. See *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 27 (1984) (finding informational imperfections too "abstract" a factor to "generate the kind of market power that justifies condemnation of tying"). For a fuller discussion of the treatment accorded the market imperfection issue by the Court in *Jefferson Parish*, see *infra* notes 112-116 and accompanying text.

94. See *infra* notes 130-131 and accompanying text.

95. *Kodak*, 112 S. Ct. at 2092.

96. *Id.* at 2081-82.

97. *Id.* at 2085.

98. *Id.* The Court emphasized that the actual conditions of Kodak's market refuted its theoretical explanation; although Eastman Kodak had raised its prices for service, it was unable to show that its equipment sales had dropped. *Id.* at 2087.

99. *Id.*

plicated and expensive.<sup>100</sup> The information necessary for accurate pricing decisions is difficult, if not impossible, to acquire, may change during the life of the product, and is often customer-specific, making it difficult for one buyer to anticipate her costs on the basis of another's experience.<sup>101</sup> The Court dismissed as a question of fact Kodak's theoretically reasonable suggestion that, in a competitive market, competitors will satisfy buyers' information needs about rival products,<sup>102</sup> stating that even if consumers could overcome the difficulties of lifecycle pricing, they "may choose not to do so," because acquiring that information is expensive.<sup>103</sup> In the Court's view, the existence of these obstacles to accurate pricing information constituted a significant market failure that defeated the assumption that Kodak's equipment markets worked in a rational manner.<sup>104</sup> Without that assumption, it was conceivable that Kodak could possess power in those markets despite having a low market share.<sup>105</sup>

The possible presence of a second form of market failure buttressed the Court's holding. Given the "heavy initial outlay" for Kodak equipment, and the need to purchase support materials that work only with Kodak equipment, current owners of Kodak equipment could arguably incur "very high" costs if they chose to switch to a competitor's product.<sup>106</sup> "Locked-in" to some extent by these high "switching costs," Kodak's customers would presumably tolerate some significant level of increase in the price of service before changing brands.<sup>107</sup> The Court reasoned that if the number of cus-

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100. *Id.* at 2085. According to the Court, the lifecycle price of a piece of equipment is the total cost to the buyer of owning that equipment over its useful life: the purchase price plus the lifetime costs of replacement parts and service. In order to estimate accurately the lifetime cost of owning such equipment, the consumer would need to know "data on 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 'down-time' and losses incurred from down-time." *Id.*

101. *Id.* at 2086.

102. *Id.* The theory that consumers who search for information benefit those who do not has been the subject of extended academic discussion. See, e.g., Michael Rothschild, *Models of Market Organization with Imperfect Information: A Survey*, 81 J. POL. ECON. 1283 (1973); Steven Salop & Joseph Stiglitz, *Bargains and Ripoffs: A Model of Monopolistically Competitive Price Dispersion*, 44 REV. ECON. STUD. 493, 494, 501 (1977).

103. *Kodak*, 112 S. Ct. at 2086.

104. *Id.* at 2087 (reasoning that because of the informational imperfection, "it makes little sense to assume, in the absence of any evidentiary support, the equipment-purchasing decisions are based on an accurate assessment" of all relevant factors).

105. *Id.*

106. *Id.*

107. See *id.*

tomers "locked-in" was large compared to the number of potential new consumers, Kodak could raise the price of service just as if it were a monopolist.<sup>108</sup> The possible existence of "very high" switching costs, coupled with the chance that "locked-in" customers outnumbered new ones, provided a second, independent reason for disregarding the theory of rational markets and viewing Kodak as a business that possessed "market power."<sup>109</sup>

In a narrow sense, *Kodak* holds that, in markets for complex durable goods, market power analysis is not limited to the issue of market share. Because information gaps may prevent facially competitive markets from functioning competitively, even firms with small market shares may be able to exert substantial power.<sup>110</sup> For this reason, future antitrust defendants who move for summary judgment on the basis of low market share are almost certain to lose; practically all markets have information gaps comparable to those described in *Kodak*. From now on, a plaintiff's argument that the market functions imperfectly—because of information costs or switching costs or both—will invariably compel a full-fledged antitrust trial that deals first with the alleged competitive failures of the particular market and then with the defendant's alleged antitrust violations.

### B. *The Implications of Kodak*

By explicitly permitting the existence of information gaps to affect market power analysis, *Kodak* breaks sharply from prior antitrust

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108. *Id.*

109. *Id.* at 2087-88 (concluding that, for summary judgment purposes, Kodak failed to show that the ISOs' "inference of market power in the service and parts markets is unreasonable").

110. In dissent, Justice Scalia, joined by Justices O'Connor and Thomas, denounced the majority's economic reasoning as "curious." *Id.* at 2096 (Scalia, J., dissenting). Justice Scalia argued that the Court's definition of market power "makes no economic sense," *id.* at 2094 (Scalia, J., dissenting), that its theoretical argument about the information costs associated with the purchase of complicated goods was "a truism," *id.* at 2097 (Scalia, J., dissenting), and that the Court had never before suggested that such "commonplace informational deficiencies" could confer market power in any sense relevant to the antitrust laws. *Id.* at 2097-98 (Scalia, J., dissenting).

Although correct to criticize the majority on these grounds, Justice Scalia failed to acknowledge the implications of the Court's opinion for antitrust jurisprudence generally. In his view, the case concerned only the "*per se* rule condemning 'ties' " and the standards governing "the behavior of would-be monopolists." *Id.* at 2092 (Scalia, J., dissenting). No less than the majority opinion, the dissent ignored the consequences of *Kodak* for other antitrust violations, the problems of definition and measurement that it creates, the difficulty of containing its rationale, and the burdens that it places on potential defendants.

doctrine in a number of significant ways. The implications of this break are numerous and far-reaching. They range from relatively simple problems of definition and measurement to complicated questions about the role of causation in this new analysis. Lower courts will be forced to ask whether the rationale of *Kodak* can logically be confined to markets for "complex durable goods" and to imperfections of information; and as a practical matter, potential antitrust defendants will need to determine whether, and how, they can adjust their business conduct, in light of *Kodak*, to protect themselves from antitrust liability.

1. *A Dramatic Break From the Past.*—*Kodak* marks a sharp departure from several significant and well-established aspects of antitrust jurisprudence. Not only does it break from precedent, but it replaces proven aspects of antitrust methodology with confusing tests that will be difficult to apply. Furthermore, in conjunction with *FTC v. Ticor Title Insurance Co.*,<sup>111</sup> also decided by the Court this past term, *Kodak* represents a clear rejection of the contractionist approach to antitrust employed by the Supreme Court for the past fifteen years, and a strong signal that the Court has changed the terms of discourse in antitrust jurisprudence.

*Kodak* is not the first Supreme Court opinion to consider whether informational imperfections could create market power in a firm whose market share was relatively small. In *Jefferson Parish Hospital District No. 2 v. Hyde*,<sup>112</sup> a case challenging the legality of an alleged tying arrangement between hospital services and anesthesiological services, the Court reversed a Fifth Circuit holding<sup>113</sup> that imperfections in local markets for health services, including a "lack of complete information regarding the quality of medical care offered,"<sup>114</sup> warranted an inference of market power against a hospital with only a thirty percent share of the relevant market. Despite acknowledging both the existence of market imperfections and the possibility that they might indirectly "impede competition on the

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111. 112 S. Ct. 2169 (1992) (restricting the state action defense to alleged Sherman Act violations by requiring that defendants prove that the state exercised independent control over the economic policies involved in a regulatory scheme). See *infra* note 132 and accompanying text.

112. 466 U.S. 2 (1984).

113. *Hyde v. Jefferson Parish Hosp. Dist. No. 2*, 686 F.2d 286 (5th Cir. 1982), *rev'd*, 466 U.S. 2 (1984).

114. *Id.* at 290. In addition to the lack of complete information about quality, the Fifth Circuit relied on a second form of market imperfection, "the prevalence of third party payment of bills," a factor that "eliminates a patient's incentive to compare the relative cost effectiveness of competing hospitals." *Id.*

merits,"<sup>115</sup> the Supreme Court held in *Jefferson Parish* that the "abstract" form of market power generated by market imperfections was not "the kind of market power that justifies condemnation of tying."<sup>116</sup>

The approaches of *Kodak* and *Jefferson Parish* to the role of informational imperfections in market power analysis cannot be reconciled. Even though both dealt with tying arrangements and the markets in each presented consumers with substantial informational difficulties, the *Jefferson Parish* Court directly declined to evaluate the same kind of information gaps that, for the *Kodak* Court, conferred "market power" on the defendant.

The opinion in *Kodak* failed to acknowledge the Court's departure from the rationale of *Jefferson Parish*.<sup>117</sup> Nor did the Court articulate any basis for that departure or offer an explanation of how a form of market power previously judged too "abstract" for antitrust proscription had, in just eight years, become sufficiently concrete to merit condemnation. The only arguable grounds for reconciling the two opinions—that different markets deserve different antitrust treatment, or that the information gaps in *Kodak* were more substantial than those in *Jefferson Parish*—received no mention from the *Kodak* Court.

*Kodak* also marks a break from the Supreme Court's historical reluctance to apply complicated measurement techniques to economic matters affecting antitrust cases.<sup>118</sup> The use of market share as a proxy for market power developed at least in part because sev-

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115. *Jefferson Parish*, 466 U.S. at 15 n.24 (noting that "[e]specially where market imperfections exist, purchasers may not be fully sensitive to the price or quality implications of a tying arrangement").

116. *Id.* at 27.

117. *But see* Eastman Kodak Co. v. Image Technical Servs., 112 S. Ct. 2072, 2097-98 (1992) (Scalia, J., dissenting) ("We have never suggested that the principal players in a market with such commonplace informational deficiencies . . . exercise market power in any sense relevant to the antitrust laws." (citing *Jefferson Parish*)).

118. *See, e.g.*, United States v. E.I. du Pont de Nemours & Co., 351 U.S. 377, 394-95 (1956) (holding that although an appraisal of "cross-elasticity of demand" was needed to determine the relevant product market, the difficulty of making that measurement justified the use of the concept of "reasonable interchangeability"); United States v. Trenton Potteries Co., 273 U.S. 392, 397-98 (1927) (noting the institutional dangers inherent in attempts to find the "reasonable price [of a product] today"); United States v. Addyston Pipe & Steel Co., 85 F. 271, 284 (6th Cir. 1898) (recognizing that judicial attempts to determine whether, and to what extent, restraints of trade could serve the public interest would constitute "set[ting] sail on a sea of doubt"), *modified and aff'd*, 175 U.S. 211 (1899); *see also* A.A. Poultry Farms v. Rose Acre Farms, 881 F.2d 1396, 1400 (7th Cir. 1989) (describing various considerations making it difficult to infer predatory conduct from the relation of price to cost).



eral of the most relevant indicators of market power—such as the relevant elasticities of demand and supply—could not be measured accurately.<sup>119</sup> In part, the market share proxy has proved useful as a surrogate test because a firm's market share can be fairly assessed—not perfectly or with enough accuracy to satisfy all legitimate concerns about market structure,<sup>120</sup> but reasonably well and at a tolerable administrative cost.

By making the presence of “difficult and costly” information gaps potentially dispositive of the market power question, and likely so at the summary judgment stage, the Court in *Kodak* has saddled antitrust factfinders with measurement problems that may be insurmountable. Because only “difficult and costly” gaps—not every informational imperfection—trigger the new market power analysis, some method of measuring “difficulty” and “cost” seems essential to a reasoned application of *Kodak*'s holding. The *Kodak* Court, however, suggested no such method. Nor did the Court attempt to define either of those critical terms; it simply described the phenomenon of “lifecycle pricing” and labeled it “difficult and costly,” without distinguishing it on those bases from any other kind of persistent information gap.<sup>121</sup> The task of developing some means for assessing absolute and relative degrees of difficulty, and for assigning them a dollar value, will arguably embroil the lower courts in measurement problems not previously addressed by antitrust tribunals.

*Kodak* breaks from the conventional methodology of antitrust jurisprudence in two other significant ways. The Supreme Court has traditionally enforced the antitrust laws against firms that have acted either to create or to worsen a competitive imbalance in their markets. Courts have never found markets themselves to violate the antitrust laws simply on account of their structure. To the contrary, courts have refrained from proscribing the unilateral conduct of firms in markets with structural imperfections when the only option conceivably available for remedying the imperfection would be a full-scale restructuring of the market.<sup>122</sup>

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119. See Schmalensee, *supra* note 23, at 1796-97 (noting that the demand conditions faced by a firm are “central to an assessment of its market power,” but warning that “firm demand curves are rarely observable”).

120. See cases collected *supra* note 31.

121. See *Kodak*, 112 S. Ct. at 2085-86.

122. See, e.g., *In re Kellogg Co.*, 99 F.T.C. 8, 289 (1982) (Statement of Commissioner Patricia P. Bailey) (“[W]hile there may be a legitimate concern about the anticompetitive effects of the exercise of oligopoly power, it is rarely true that these concerns will mandate an administrative agency decision to restructure an industry, short of a legislative

The Court in *Kodak* effectively condemned Eastman Kodak for "power" derived from structural information gaps that were not alleged to be its fault. Because Kodak's interbrand equipment markets exhibited "difficult and costly" informational imperfections—but not because it created or exacerbated these imperfections—Kodak was deemed capable of possessing "market power," notwithstanding its utter inability to effect the market-wide solution necessary to resolve those information problems.

Second, by its terms, *Kodak* apparently applies only to information gaps in markets for "complex durable goods."<sup>123</sup> While it does not explicitly restrict its holding to such markets, *Kodak* clearly implies, by its pointed reference to that particular kind of market, that its rationale extends only to some product markets, and not to markets for personal services. However, the implications of a broader reading—that *Kodak*'s new market power analysis applies to all markets for goods and services—raise substantial problems of their own.<sup>124</sup>

No other antitrust court of modern vintage has distinguished between different kinds of product markets or between product markets and markets for personal services, either in determining market power or in making any other critical antitrust determination. Since 1975, when the Court held in *Goldfarb v. Virginia State Bar*<sup>125</sup> that the "learned professions" were not exempt from antitrust scrutiny,<sup>126</sup> the Supreme Court has applied the same antitrust law, the same methodology and the same type of analysis equally to all kinds of product and service markets.<sup>127</sup> *Kodak* thus marks the

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warrant to that effect."); ELEANOR M. FOX & LAWRENCE A. SULLIVAN, CASES AND MATERIALS ON ANTITRUST 508 (1989) ("[W]here markets have evolved into oligopolies by internal growth or by mergers that went unchallenged or survived challenge in earlier days of *laissez faire*[...] no traditional antitrust challenge has been available.").

123. *Kodak*, 112 S. Ct. at 2085.

124. See *infra* text accompanying notes 137-149.

125. 421 U.S. 773 (1975).

126. *Id.* at 788 ("[A]nticompetitive activities by lawyers may exert a restraint on commerce.").

127. In a footnote, the Court has suggested that the fact that a given restraint operates on a profession as distinguished from a business *may* change the analysis of whether the restraint violates the Sherman Act. *Id.* at 788 n.17 (noting that "[i]t would be unrealistic . . . automatically to apply to professions antitrust concepts which originated in other areas" but cautioning that "[w]e intimate no view on any other situation than the one with which we are confronted today"). However, the Court has not yet applied a different analysis to professionals. See, e.g., *FTC v. Indiana Fed'n of Dentists*, 476 U.S. 447 (1986) (dentists); *Arizona v. Maricopa County Medical Soc'y*, 457 U.S. 332 (1982) (doctors); *National Soc'y of Prof'l Eng'rs v. United States*, 435 U.S. 679 (1978) (engineers).

first recent opinion in which the Court has subjected firms in a particular product market to antitrust treatment more rigorous than the norm.

Finally, along with *FTC v. Ticor Insurance Co.*,<sup>128</sup> *Kodak* apparently reverses the general direction of antitrust jurisprudence set by the Court over the past fifteen years. During that time, almost without exception,<sup>129</sup> the Court consistently contracted the scope of judicial involvement in antitrust enforcement, often relying on economic theory to resolve disputed issues at the summary judgment stage.<sup>130</sup> While a complete discussion of the recent course of antitrust jurisprudence is beyond the scope of this Article, the "contractionist" philosophy of the Court can be seen clearly from its decisions in various areas of antitrust law.<sup>131</sup> These decisions all point

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128. 112 S. Ct. 2169 (1992) (re-examining the state-action immunity defense).

129. The lone exception seems to be *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585 (1985) (en banc), in which the Court established a new obligation for monopolists: the duty not to change, without valid business justification, an established course of cooperative dealing with a rival. *See id.* at 608-11. That duty is obviously a relatively narrow one in theory, and in practice lower federal courts have interpreted *Aspen Skiing Co.* in a restrictive fashion as well. *See, e.g.*, *Olympia Equip. Leasing Co. v. Western Union Tel. Co.*, 797 F.2d 370, 377-79 (7th Cir. 1986) (extending the duty only to "circumstances where some cooperation is indispensable to effective competition"), *cert. denied*, 480 U.S. 934 (1987).

130. *See Continental T.V. v. GTE Sylvania*, 433 U.S. 36 (1977) (relying significantly on economic theory to distinguish interbrand from intrabrand competition). A number of prominent commentators have urged that many categories of antitrust cases can, and should, be decided on the basis of economic theory alone. *See, e.g.*, Frank H. Easterbrook, *The Limits of Antitrust*, 63 TEX. L. REV. 1 (1984); Richard A. Posner, *The Next Step in the Antitrust Treatment of Restricted Distribution: Per Se Legality*, 48 U. CHI. L. REV. 6 (1981).

131. *See Atlantic Richfield Co. v. USA Petroleum Co.*, 495 U.S. 328 (1990) (restricting the permissible limits of antitrust standing to parties who have suffered adverse economic consequences as a direct result of the unlawful conduct); *Business Elecs. Corp. v. Sharp Elecs. Corp.*, 485 U.S. 717 (1988) (narrowing the scope of per se rules against resale price maintenance); *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574 (1986) (concluding that, based on economic theory, an alleged scheme of predatory pricing could not succeed and imposing a rigorous set of requirements for proof of conspiracy in order to survive summary judgment); *Monsanto Co. v. Spray-Rite Serv.*, 465 U.S. 752 (1986) (narrowing the scope of per se rules against resale price maintenance); *Northwest Wholesale Stationers v. Pacific Stationery & Printing Co.*, 472 U.S. 284 (1985) (imposing a requirement that market power be shown in order to sustain a challenge to a group boycott as per se illegal); *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2 (1984) (adding a showing of market power in the tying product to the requirements for per se illegality of a tying arrangement); *see also FTC v. Indiana Fed'n of Dentists*, 476 U.S. 447 (1986) (finding no per se violation in a requirement that group members withhold x-rays from dental insurers, though it violated the Sherman Act under the rule of reason standard); *National Collegiate Athletic Ass'n v. Board of Regents*, 468 U.S. 85 (1984) (holding that although a limitation on television coverage of college football games violated the Sherman Act under the rule of reason standard, it was not per se illegal); *Broadcast Music, Inc. v. Columbia Broadcasting Sys.*, 441 U.S. 1

in the same direction: they limit or reduce the number of *per se* violations; they make proof of those violations more difficult for plaintiffs; and they turn summary judgment into a more effective remedy for defendants.

*Kodak* and *Ticor* point in the opposite direction, especially *Kodak*. *Ticor* weakens the state action defense,<sup>132</sup> thereby encouraging more plaintiffs to proceed with their relatively narrow group of Section 1 claims.<sup>133</sup> *Kodak* expands the definition of “market power”—a term critical to nearly every kind of antitrust claim—so broadly as to enable almost any firm to possess it, generally increasing plaintiffs’ likelihood of success and reducing drastically the utility of summary judgment to businesses caught up in antitrust litigation.

2. *A Shift in the Terms of Debate.*—*Kodak* may also signal a meaningful shift in the terms of the debate over the future of antitrust philosophy. Prior to *Kodak*, the Supreme Court’s more controversial antitrust opinions contained a relatively predictable majority opinion and an equally predictable dissent.<sup>134</sup> One side would argue in essence that, because of its fixed and measurable concern for consumer welfare, neoclassical economic theory should control the

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(1979) (holding that issuance of blanket licenses that permitted unlimited performance of copyrighted compositions for a stated term did not constitute a *per se* unlawful price-fixing offense under antitrust law).

132. The Supreme Court established the state action doctrine in *Parker v. Brown*, 317 U.S. 341 (1943), declaring that a state agricultural program was exempt from antitrust liability, because Congress expressed no intent in the Sherman Act to “restrain state action or official action directed by a state.” *Id.* at 351. More recently, in *California Retail Liquor Dealers Ass’n v. Midcal Aluminum, Inc.*, 445 U.S. 97 (1980), the Court announced that private actors participating in a state-run or state-authorized program could receive state action immunity when that program was “clearly articulated and affirmatively expressed as state policy” and the policy was “‘actively supervised’ by the State itself.” *Id.* at 105 (citations omitted). In *Ticor*, the Court held that in order to satisfy the “active supervision” requirement of *Midcal*, defendants need to prove that “the State has played a substantial role in determining the specifics of the economic policy.” *FTC v. Ticor Title Ins. Co.*, 112 S. Ct. 2169, 2177 (1992). The new analysis asks not whether there has been some state involvement in, or oversight of, the particular program, but seeks to determine whether the State “has exercised sufficient independent judgment and control” over that program. *Id.* These more exacting standards obviously make proof of the defense more difficult.

133. Concurring in *Ticor*, Justice Scalia stated that while the Court’s decision was “faithful” to prior cases dealing with the “active supervision” prong of *Midcal*’s test, it would nevertheless be “a fertile source of uncertainty and (hence) litigation.” *Ticor*, 112 S. Ct. at 2180 (Scalia, J., concurring).

134. See, e.g., *Atlantic Richfield Co. v. USA Petroleum Co.*, 495 U.S. 328 (1990); *Business Elecs. Corp. v. Sharp Elecs. Corp.*, 485 U.S. 717 (1988).

resolution of antitrust problems.<sup>135</sup> The other would contend that social, political and equitable values offered more protection to the core goals of antitrust policy: open access to markets, the encouragement of small business and the fair distribution of wealth.<sup>136</sup> At the same time, the academic literature addressing antitrust issues witnessed a similar debate between the advocates of economic theory and the champions of a more politically oriented philosophy of competition.<sup>137</sup>

*Kodak* could have fit this mold. The Court's economics wing could have argued, as Justice Scalia did in dissent, that Kodak's theoretical arguments were correct and should have controlled the outcome of the case.<sup>138</sup> The sociopolitical wing could have contended that Kodak's parts and service policy was effectively closing the service market to small businesses and depriving them of a fair opportunity to compete.

But no Justice in *Kodak* made the sociopolitical argument. The debate took place solely on the level of economics, with the dissent arguing for the primacy of theory and the majority claiming that the facts of economic life were, in this case, more important than the theory.<sup>139</sup> The absence of an advocate for the sociopolitical per-

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135. See *Business Elecs.*, 485 U.S. at 731, 735 (using "economic analysis" to support the decision).

136. See *id.* at 745-46 (Stevens, J., dissenting) (focusing on whether the alleged misconduct created a "conflict with antitrust policy"). In *Atlantic Richfield*, for example, the philosophical differences between the majority opinion and the dissent typified those that had, until *Kodak*, characterized the Court's competing approaches to antitrust policy. Responding to the majority's use of economic theory to deny standing to a plaintiff allegedly harmed by the defendant's vertical pricing policy, the dissent argued that "[t]he Court, in its haste to excuse illegal behavior in the name of efficiency, has cast aside a century of understanding that our antitrust laws are designed to safeguard more than efficiency and consumer welfare." *Atlantic Richfield*, 495 U.S. at 360 (Stevens, J., dissenting) (footnotes omitted).

137. The literature is extensive. For a representative sampling of the two schools, compare ROBERT H. BORK, *THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF* (1978); RICHARD A. POSNER, *ANTITRUST LAW: AN ECONOMIC PERSPECTIVE* (1976) (advocating economic theory) with John J. Flynn & James F. Ponsoldt, *Legal Reasoning and the Jurisprudence of Vertical Restraints: The Limitations of Neoclassical Economic Analysis in the Resolution of Antitrust Disputes*, 62 N.Y.U. L. REV. 1125 (1987) (advocating a more social and political approach); Eleanor M. Fox, *The Modernization of Antitrust: A New Equilibrium*, 66 CORNELL L. REV. 1140 (1981); Robert Pitofsky, *The Political Content of Antitrust*, 127 U. PA. L. REV. 1051 (1979).

138. See *Eastman Kodak Co. v. Image Technical Servs.*, 112 S. Ct. 2072, 2097-99 (1992) (Scalia, J., dissenting).

139. On a different level, the majority opinion actually could be interpreted as distinctly "theoretical." In its response to Kodak's reliance on price theory, the majority may have been attempting to offer a different economic theory about the role of market imperfections in disrupting the workings of hypothetically competitive markets. The

spective may indicate that the Supreme Court has come unanimously to accept the notion that economic concerns drive competition policy, but is unable to agree on which theories to apply or on the extent to which economic theory should trump economic fact. If so, the Court has undergone a major shift in philosophical orientation, revealed for the first time by the opinion and dissent in *Kodak*.

3. *The Meaning of Kodak for the Future of Antitrust.*—Some of the implications of *Kodak* for the future of antitrust jurisprudence should be obvious from the previous discussion. Market power analysis will be dramatically altered. The new analysis will present lower courts with measurement problems that may be intractable. The balance of power between plaintiffs and defendants in antitrust cases will shift decidedly in plaintiffs' direction.

There are other questions raised by *Kodak*, however, that may not be so clear. The most important of these is whether lower courts can limit *Kodak*, either to its own facts or to some reasonably well-defined set of markets or circumstances; and if not, how far they must logically extend *Kodak*'s rationale. Almost as important is the question of whether firms desirous of avoiding antitrust liability can respond to *Kodak* in a legally useful fashion. If no useful response seems possible, then all firms, no matter how small, must live continuously under the threat of *Kodak*'s market power analysis, wondering if structural information gaps beyond their control will confer "market power" upon them, subjecting them to heightened antitrust scrutiny.<sup>140</sup>

a. *Problems of Containment.*—By its own terms, *Kodak* involved a market for "complex durable goods."<sup>141</sup> In that kind of market, according to the Court, consumers need to engage in "accurate life-cycle pricing," a "difficult and costly" process.<sup>142</sup> They must also contend with "very high" "switching costs" that arise because Kodak equipment, "though expensive when new, has little resale value."<sup>143</sup> In the Court's view, these costs "lock in" the Kodak con-

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dissent in *Kodak* viewed the majority opinion in this light, referring to the majority's position on information costs as a "theory of its own." *Id.* at 2097 (Scalia, J., dissenting).

140. *Cf. Business Elecs.*, 485 U.S. at 744 (Stevens, J., dissenting) (warning, in another antitrust context, that any fundamental change in antitrust jurisprudence "can only breed uncertainty in the law and confusion for businessmen").

141. *Kodak*, 112 S. Ct. at 2085.

142. *Id.*

143. *Id.* at 2077.

sumers and, either separately or in conjunction with the information gaps inherent in lifecycle pricing,<sup>144</sup> conceivably allow Eastman Kodak to exert power in this market, despite its low market share.<sup>145</sup>

If *Kodak's* revolutionary approach to market power could be confined rationally to markets for "complex durable goods," and if such markets are relatively few in number, lower courts might be able to spare significant sectors of the economy from the disruption that an unbridled application of *Kodak* would cause. The prospects for confining *Kodak* on that basis, however, seem slim. The *Kodak* Court did not define the term "complex durable goods," nor does the economic literature provide a definition of that particular term. Moreover, markets for "durable goods," a well-defined term, are so numerous as to constitute but a small limitation on *Kodak's* scope.

Economists define the term "durable goods" in a number of ways. They are defined variously as those "[g]oods which are not intended for consumption immediately or at one time";<sup>146</sup> goods which "yield a flow of services into the future";<sup>147</sup> "[g]oods which can be used over and over again";<sup>148</sup> and goods "expected to last longer than three years."<sup>149</sup> The economics literature contains no definition of the term "complex durable goods." Because most goods are "durable" to some degree, however, the term "durable goods" is often used to denote "relatively expensive, technologically sophisticated" goods, such as "washing machines, automobiles and TV sets."<sup>150</sup> Each of these definitions obviously embraces a wide variety of product markets. None would substantially limit *Kodak*, because each eliminates from consideration only markets for services and short-lived goods.

Instead of focusing on particular markets, lower courts could contain *Kodak* by limiting its application to "difficult and costly" information gaps, like the "lifecycle pricing" problem encountered by

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144. It is not clear from the *Kodak* opinion whether both of these factors must exist simultaneously in order for *Kodak's* analysis to apply, but it seems that each independently can create the market-power-without-market-share that is the hallmark of the *Kodak* holding.

145. *Kodak*, 112 S. Ct. at 2087.

146. DONALD W. MOFFAT, *ECONOMICS DICTIONARY* 93 (2d ed. 1983).

147. JOHN EATWELL ET AL., *THE NEW PALGRAVE, A DICTIONARY OF ECONOMICS* 588 (1987).

148. ERWIN E. NEMMERS, *DICTIONARY OF ECONOMICS & BUSINESS* 139 (3d ed. 1974).

149. CHRISTINE AMMER & DEAN S. AMMER, *DICTIONARY OF BUSINESS & ECONOMICS* 90 (1977).

150. DOUGLAS A.L. AULD ET AL., *THE AMERICAN DICTIONARY OF ECONOMICS* 84 (1983).

Kodak's buyers.<sup>151</sup> Measurement problems aside, this tack seems no more promising than a market-oriented approach to limitation. If lifecycle pricing, and its attendant difficulties, is meant to serve as a metaphor for all significant information gaps, then the durable goods markets are full of such gaps: the problems associated with determining product quality, for example, are no less daunting. And if, improbably, the Court meant to confine the *Kodak* methodology strictly to lifecycle pricing, *Kodak* would still not be well-contained. Buyers of all durable goods must engage in lifecycle pricing. Because they cannot do so accurately without adequate information about product quality, along with a host of other factors, "difficult and costly" information gaps would seem to be ubiquitous.

Finally, lower courts considering the rationale of *Kodak*, and not just its vocabulary, will likely feel bound, logically and equitably, to extend its application to almost every market and information gap. *Kodak*'s rationale suggests that in any competitive market—not just those for complex goods—substantial information gaps of many kinds can prevent consumers from making rational decisions and permit relatively small sellers to act as if they were monopolists. Lower courts may reason that, wherever those kinds of information gaps exist, antitrust law should treat sellers as "powerful," no matter what their market share, in order to reflect best the competitive reality created by the informational imbalance. If so, *Kodak* has no effective limits.

To understand further why a limited application of *Kodak* might be unfair, consider the composition of Kodak's consumer group, the buyers unable to bridge the market's information gaps. According to the Supreme Court, these buyers were "federal, state, and local government agencies, banks, insurance companies, industrial enterprises, and providers of specialized copy and microfilming services."<sup>152</sup> They were, in other words, one of the most sophisticated and resourceful groups of consumers imaginable. *Kodak* implicitly protects these highly sophisticated consumers, by ascribing "market power" to those who sell to them, on account of information gaps that are "difficult and costly" for those consumers to close. Lower courts might well decide that this form of protection should extend equally to less sophisticated consumers in less complicated markets, who face informational imperfections of the same relative degree of

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151. See *Eastman Kodak Co. v. Image Technical Servs.*, 112 S. Ct. 2072, 2085-86 (1992).

152. *Id.* at 2077.



difficulty and cost. From that perspective, *Kodak's* rationale would, again, embrace almost every seller in almost every market.

Additionally, given the numerous types of potentially significant information gaps and the variety of other market imperfections that could seriously disadvantage consumers, lower courts might well extend *Kodak* to cover all market failures that satisfy the "difficult and costly" standard. As an example of one such market failure, consider the problem of heterogeneous goods.<sup>153</sup> As a market's sellers increasingly and consciously differentiate their products from each other's through advertising, design changes and other techniques, accurate interbrand comparisons for buyers in that market are likely to become "difficult and costly."<sup>154</sup> Lower courts could rationally decide that this type of market imperfection confers upon sellers the same kind of "market power" condemned in *Kodak*.

*b. Problems of Self-Defense.*—*Kodak* creates at least one other major problem. The means that *Kodak* suggests for avoiding antitrust liability are dysfunctional, in part because they threaten to raise other antitrust questions, and in part because they are highly impractical. In order, for example, to avoid the "market power" label that *Kodak* would bestow upon companies in markets with "difficult and costly" information gaps, firms may significantly increase the advertising of their products or adopt other, more individualized, techniques for informing potential customers about their products' relevant features and long-term costs and savings.

By increasing their advertising to foreclose informational problems, however, firms could encounter at least three risks. First, if all firms advertised extensively, the advertisements might differentiate their products from one another sufficiently to create pockets of market power—achieved through the failure of the market to offer homogeneous goods<sup>155</sup>—and thereby subject those firms to the strict antitrust scrutiny that they were trying to avoid. Second, be-

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153. Recall that perfectly homogeneous goods are one of the preconditions of a perfectly competitive market; if goods are exactly alike in appearance, function, longevity, etc., buyers can easily decide between them on the basis of price. See HOVENKAMP, *supra* note 42, at 2; STIGLER, *supra* note 41, at 87-88.

154. For a discussion and bibliography of the debate over whether advertising is harmful or beneficial to consumers, see Elizabeth Mensch & Alan Freeman, *Efficiency and Image: Advertising as an Antitrust Issue*, 1990 DUKE L.J. 321.

155. See, e.g., AREEDA & HOVENKAMP, *supra* note 31, ¶ 518.1e ("[D]ifferentiated products are not perfectly interchangeable for consumers.").

cause of the economic externalities<sup>156</sup> associated with advertising, firms that do not advertise often benefit from the heightened consumer interest created by those that do. Would-be advertisers might therefore be reluctant to produce information whose value would have to be shared with the competition, resulting in the dissemination of too little information and the persistence of the critical information gaps. Finally, because many significant information gaps inhere in the structure of particular markets and are impossible to remedy through advertising, efforts by firms to close those gaps may be futile or prohibitively expensive.<sup>157</sup>

The problem of "switching costs" is no easier for firms to correct. Recall that the Court in *Kodak* defined a switching cost as "the cost to current owners of switching to a different product."<sup>158</sup> It deemed those costs burdensome because Eastman Kodak sold its own equipment and, although "expensive when new," that equipment had "little resale value."<sup>159</sup> According to the Court, the presence of switching costs provided Kodak with a second, independent source of "market power."<sup>160</sup>

In order to lower these costs and spare themselves the "market power" designation, firms have three unattractive options. First, firms can lease their equipment under terms permitting the lessees to switch, without cost, to any competitive brand at any time during the lease term. This option might avoid the problem of low resale value,<sup>161</sup> but it would almost certainly be highly unprofitable for les-

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156. An externality is any "activity that affects others for better or worse, without those others paying or being paid for the activity." SAMUELSON & NORDHAUS, *supra* note 36, at 905.

157. See *supra* notes 43-57 and accompanying text.

158. *Eastman Kodak Co. v. Image Technical Servs.*, 112 S. Ct. 2072, 2087 (1992).

159. *Id.* at 2077. The Court did not define the terms "expensive" or "little."

160. See *id.* at 2087. Of course, although the *Kodak* Court describes the information gaps and switching costs in Kodak's market as independent bases for its finding of possible market power, for Kodak to exert power over its buyers, those two factors had to co-exist. Information gaps, once bridged, can be rendered harmless by low switching costs; high switching costs, in a competitive market with complete information, must be regarded as a possibly disagreeable part of a package whose benefits to the buyer must, by definition, outweigh its costs. In theory, though, information gaps and switching costs need not be coupled in this manner, largely because if information gaps go undetected by buyers, or allow the seller to make sales that would not otherwise have occurred, the existence of high switching costs becomes much less relevant.

161. This option necessarily assumes that firms would not attempt to recoup their investment in equipment research and development by charging a high price, payable at the start of the lease term, for the computer software necessary to operate their equipment.

sor-firms.<sup>162</sup> Second, firms can reduce the sales price of their equipment, making it "inexpensive" and narrowing the difference between the purchase and resale prices. In a competitive market, however, firms presumably offer their equipment at the lowest possible price—because doing otherwise would forsake additional sales—and, therefore, forcing those businesses to drop prices below the competitive level would effectively drive them out of business. Third, firms could attempt somehow to maintain the resale value of their equipment at relatively "high" levels. Because the low resale value of older equipment is often attributable to technological improvements in new goods, however, those attempts could succeed only through a conscious, and probably illegal, effort to stifle technological progress.

At bottom, firms can do little to protect themselves from the implications of *Kodak*.<sup>163</sup> Some information gaps simply cannot be bridged. The elimination of others may, by reducing product homogeneity, create a different kind of market imperfection, logically indistinguishable from informational failure and equally likely to result in a finding of "market power." Companies can reduce "switching costs" only by committing commercial suicide or by eschewing technological advances. Firms seeking to shield themselves from the *Kodak* holding thus have no effective form of self-defense.

#### IV. A MODEST PROPOSAL FOR LIMITING *KODAK*

Given the enormous implications of *Kodak* and the apparent absence of intrinsic limits to the sweep of its rationale, what, if anything, can lower courts do to avoid the seemingly intractable problems raised by the opinion? Three options suggest themselves, though not with equal force: (1) limit *Kodak* as strictly as possible to its own facts; (2) devise a rough, relative measure of the cost and

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162. It could also, as in *United States v. United Shoe Mach. Corp.*, 110 F. Supp. 295 (D. Mass. 1953), *aff'd per curiam*, 347 U.S. 521 (1954), eliminate the markets for used machinery and used parts, preventing technology transfer and potentially forestalling the emergence of new firms in the primary equipment market.

163. One might wonder why firms wishing to avoid the implications of *Kodak* would not simply *permit* the competition in service that *Kodak* restricted. In a presumably competitive market like *Kodak*'s, however, firms that restrict service do so because they think that they can provide the service more efficiently—at lower cost, higher quality, or a better mix. For these firms, allowing the additional competition would be counterproductive, usually because buyers aggrieved by the workings of that firm's product may "really" be complaining about the poor service or parts of the independents. If *Kodak* provides all the service, and maintains control over its quality, it can remedy those buyer complaints more readily and with greater precision, thus avoiding undeserved harm to its image.

difficulty of overcoming the information gaps described in *Kodak*, and determine a firm's market power through a formula that factors together market share and measured market imperfections; or (3) add to the *Kodak* analysis a requirement of causation, limiting its analysis to cases in which the defendant has either caused or exacerbated the information gap at issue.<sup>164</sup>

#### A. *Limit Kodak to Its Facts*

An obvious way to limit the reach of *Kodak* is to restrict its applicability to cases with very similar facts. Lower courts could decide, for example, that *Kodak's* methodology for determining market power should apply only to markets for "complex durable goods," and only to those markets demonstrating the same kind of informational imperfections and switching costs discussed in *Kodak*. To accomplish this, the next court encountering a similar dispute will have to fashion a workable, narrow definition of "complex durable goods."

As should be evident, however, a narrow reading of *Kodak* would not accomplish much, nor is it likely to be either logical or fair.<sup>165</sup> By any definition, there seem to be many markets for "complex durable goods," all with "costly and difficult" problems of lifecycle pricing and high switching costs. Certainly, this approach would shield some markets and market failures from the *Kodak* holding, but only at a cost in logic and fairness that most lower courts would refuse to incur. For these reasons, most courts are likely to reject the option of containing *Kodak* by strict interpretation.

#### B. *Develop a Rough Methodology for Measuring and Comparing Information Gaps*

The market power analysis announced in *Kodak* was apparently triggered by the Supreme Court's finding that the informational imperfections associated with lifecycle pricing were "difficult and costly" to remedy. Presumably, if those imperfections could have been alleviated with little or no difficulty and at little or no expense, they would have had no effect on the determination of market power. Given the importance of the "difficult and costly" requirement to *Kodak's* market power analysis, the Court's failure to define

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164. Of course, these suggestions are not mutually exclusive and could be used in combination with one another. A court could, for example, decide to limit the application of *Kodak* strictly to its facts (or certain of them, for example, the market for "complex durable goods") and adopt as well the causation requirement.

165. See *supra* text accompanying notes 141-153.

those terms, though understandable in view of the enormity of the measurement problems entailed, is especially problematic. It does, however, present lower courts with an opportunity to constrain *Kodak's* effect.

The impossibility of formulating a precise definition of the "difficult-and-costly" standard should not dissuade lower courts from attempting to structure a working definition of that term. Although many markets have significant informational imperfections, markets differ in this respect, often by degrees of magnitude that are observable, if not measurable. Some markets provide consumers with substantial amounts of useful information,<sup>166</sup> while others furnish very little.<sup>167</sup> With the help of expert testimony from information economists, courts could translate these rough truths into a classification system that divided markets according to whether their relative degrees of informational imperfections were, for example, "high," "medium," or "low."

Courts would then be able to use that type of classification system in at least two arguably functional ways. Courts might decide that every firm in markets classified as "high" in informational imperfections should be considered to possess market power, and that no firm in markets designated "low" or "medium" should be so deemed. Alternatively, a hybrid system that mixed market classification and market share might be devised: in a market with "high" levels of informational imperfections, a defendant could be judged "powerful" even though it had a very low market share; in markets with decreasing levels of imperfections, only firms with increasingly higher market shares would be viewed as "powerful."

Admittedly, this type of classification system would be inexact and could be attacked as arbitrary. It does, however, seem feasible to develop and apply. Information economists could develop a grid of factors that consumers should know in order to be reasonably well-informed about a particular market. Through observation and survey, they might then measure the market for the presence of those factors, grading it as "high," "medium," or "low," on the basis of the extent of its failure to provide the theoretically "adequate" level of information. Despite their obvious drawbacks, techniques

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166. Detailed and comprehensive information on consumer products such as automobiles and stereo equipment is available through numerous specialty periodicals and consumer purchasing guides. See, e.g., *Car & Driver*, *Road & Track*, *Consumer Reports*.

167. The markets for legal and medical services, for example, impose substantial obstacles on consumers who wish to engage in comparative pricing, or who desire to measure relative levels of quality.

of this type would arguably permit lower courts to limit *Kodak* in ways that would recognize the difference between larger and smaller information gaps. Coupled with a causation requirement such as that described below, they could confine the scope of *Kodak* in a manner that would be fair and effective.

C. *Add a Causation Requirement to Kodak's Market Power Analysis*

*Kodak* does not specifically address whether a small firm arguably made powerful by an information gap must have caused that gap in order for the "market power" designation to stick. *Kodak's* silence on this point leads logically to an inference that causation does not matter and that a firm can derive "market power" even from structural information gaps. Because the Court was silent on this point, however, the inference about the irrelevance of causation need not be inevitable. Lower courts could conceivably find room within *Kodak's* analysis to include a causation requirement as a precondition to a finding of market power.

A causation requirement would limit the use of imperfect information as proof of market power to cases where the plaintiff first demonstrates that the defendant either caused or aggravated the information gap at issue. Such a requirement would differ from the causation element in a negligence action. Rather than demanding proof of a causative link between defendant's conduct and plaintiff's harm, this causation requirement would call for proof of the link between defendant's conduct and the information gaps claimed to have given the defendant market power.

Because informational imperfections often occur structurally, without any action on the part of sellers,<sup>168</sup> a causation requirement would prevent courts from ascribing market power to small firms that have neither generated nor abused the imperfections in their market. It would also prevent buyers from taking unfair advantage of market imperfections that they have created or exacerbated. These outcomes would significantly restrict the scope of *Kodak*. Problems of proof of causation most likely would be substantial for many plaintiffs, thus eliminating many potential *Kodak* claims at the summary judgment stage.

More to the point, a causation requirement would be fair. In the first place, it would preclude courts from labeling as "powerful" small firms in markets with ineradicable structural imperfections. In a very real sense, such firms have had market power "thrust upon"

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168. See *supra* notes 47-60 and accompanying text.

them; their mere presence in a particular kind of market accounts for their "power," which they can discard only by abandoning that market. A causation requirement would acknowledge and eliminate this predicament.

Second, a causation standard would provide smaller firms with a method of predicting, and thus avoiding, liability under *Kodak*. Without such a standard, any firm in an "imperfect" market could be found to possess market power; exiting the market would be the only way to insure against such a finding. With a causation requirement, however, small firms could adjust their behavior so as to avoid the "market power" label, a consequence beneficial to the market, equitable to the firms involved, and in line with the procompetitive goals of the antitrust laws.

It might be argued that adding a causation requirement to *Kodak*'s market power analysis would be unfair. If defendants have benefited from market imperfections by charging supracompetitive prices, why should they not be regarded as possessed of market power, regardless of their role in creating or exacerbating those imperfections? This argument is another with "intuitive appeal," yet it fails for two reasons. First, its logical conclusion would make every firm a potential possessor of "market power," changing antitrust law completely and condemning small firms to the risk of treble damage payments<sup>169</sup> simply for having decided to enter a market that turned out, after judicial reflection, to contain "difficult and costly" informational imperfections. The disincentives to business initiative under such a regime seem overwhelming. Second, the other half of the causation requirement—the part that would confer power upon firms that have aggravated existing market imperfections—is intended to capture for closer antitrust scrutiny only those small firms that have done something more than benignly exist and compete in their markets.

The causation requirement would not necessarily operate as an escape hatch from *Kodak*, but it would clearly limit *Kodak*'s applicability. Without proof that they caused or aggravated the information gaps in their markets, firms with small market shares could escape the reach of *Kodak*, perhaps at the summary judgment stage. Furthermore, they would receive some essential guidance about how to avoid antitrust violations. A causation requirement would

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169. See, e.g., Clayton Act § 4(b), 15 U.S.C. § 15(a) (1988) (allowing an antitrust plaintiff to "recover three-fold the damages by him sustained").

thus be sensible, educational, and fair, and might also breathe new life into the role of summary judgment in antitrust jurisprudence.

#### CONCLUSION

*Kodak* is arguably the most important antitrust decision of the past twenty years. Unfortunately, it is a disaster. By changing the traditional approach to market power analysis and discarding the market share proxy in cases involving markets with significant information gaps, the Supreme Court has effectively decided that every firm may possess market power, regardless of its market share. Philosophically, this decision breaks with precedent, marks an abrupt shift in the direction of antitrust law, and signals a sharp alteration in the terms of the judicial debate about the proper bases of competition policy. Practically, it creates serious definitional and measurement problems for lower courts, greatly diminishes the possibility of successful motions for summary judgment, contains no logical or fair limiting principles, and denies prospective antitrust defendants the means to avoid the heightened judicial scrutiny to which it subjects them.

If the staggering implications of *Kodak* are to be contained, lower courts must avail themselves of the few doctrinal loopholes that it leaves open. By developing some rough measures of informational failure and coupling them with a requirement obligating plaintiffs to prove that defendants either caused or aggravated the informational gaps at issue, lower courts have an opportunity to limit the damage that *Kodak* threatens, to revitalize the role of summary judgment in antitrust proceedings, and to provide some much-needed predictability to potential defendants.