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# Chicago Takes It On the Chin: Imperfect Information Could Play a Crucial Role in the Post-Kodak World

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# CHICAGO TAKES IT ON THE CHIN: IMPERFECT INFORMATION COULD PLAY A CRUCIAL ROLE IN THE POST-*KODAK* WORLD

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Without information imperfections that lead to market failures the world of antitrust would largely be the frictionless and simple world that some Chicago-School adherents have unfairly been accused of believing in. Even Chicago-School antitrust scholars believe that information can be imperfect, but the degree to which information is believed to be imperfect accounts for much of what separates "post-Chicago" antitrust from Chicago-School antitrust. For example, the Chicago School tends to believe that businesses should protect themselves by obtaining any needed information, while the post-Chicago School believes that businesses cannot always do so effectively due to unanticipated needs or overly costly information. The Chicago School believes that the market will almost always supply any needed information, while post-Chicagoists demand evidence this will occur. The Chicago School believes that suboptimal effects from imperfect information are relatively rare, while the post-Chicago School believes that they often are common enough to affect competition in a market. The Chicago School believes that attempts to cure alleged information-based problems are usually worse than the problems themselves, while the post-Chicago School is more optimistic. The Chicago School would leave these situations to contract law and believes that businesses should protect themselves through contracts. Post-Chicagoists are more likely to conclude that, since imperfect information can affect competition and markets, those considerations should be part of antitrust.

These differences were brought into focus by the recent Supreme Court decision in *Eastman Kodak Co. v. Image Technical Services, Inc.*[1] This opinion should erase any doubt over the importance of information

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

issues because they significantly affected the Court's decision in two places.

The first information failure involved customers' inability to predict future changes in Kodak's policy. Before 1985, potential purchasers of Kodak machines allegedly[2] understood that after purchasing their machines[3] they could go to an independent service organization (ISO) for parts and service. Frequently these ISOs charged significantly less for service than did Kodak. In 1985 or 1986 Kodak changed its policy and any customer wishing to purchase Kodak's patented spare parts had to purchase a Kodak service contract as well. Kodak thus instituted an "aftertie" between parts and service, effectively eliminating the ISOs.

Customers could be exploited by the aftertie only in an environment of imperfect information. Due to the "lock-in" factor (the cost that would be incurred if a customer with a Kodak machine decided to switch to a new machine) consumers could be exploited by the aftertie.[4] If the information possessed by customers before 1985 had been perfect, however, they would have anticipated that Kodak might change its policy after the customers purchased their machines and were locked in to purchasing spare parts from Kodak.[5] The Court said that this was an unexpected change that consumers of the machines could not reasonably have anticipated.[6] Competition involving machines, before the machine's initial purchase, could not have protected these consumers effectively since Kodak's switch was expected by neither Kodak's customers nor its competitors. Even if a traditional structural analysis would indicate that competition in a market should protect consumers, *Kodak* holds that firms with small market shares can unfairly harm consumers by taking advantage of imperfect information.[7] One important lesson of *Kodak* is

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[2] The term "allegedly" applies to virtually every statement that this Comment will make about *Kodak*.

[3] Kodak sold photocopying and other types of machines that were the subject of the lawsuit.

[4] For four ways in which this exploitation could occur see the discussion *infra*.

[5] Customers who purchased a copying machine from Kodak before 1985 probably do not have a successful contract claim because Kodak's pre-1985 policy of selling spare parts to customers who purchased their service from ISOs was not a term of the contract between Kodak and the purchasers of its machines. It merely was a change by Kodak in a collateral (although important) policy.

[6] It is unclear from the Court's opinion whether the 1985–86 change in Kodak's policy was necessary for the decision. One indication that a change is necessary is that the Court provided an opening twelve-sentence summary of the reasons why it granted certiorari. Three of these twelve sentences concerned the facts in the case, and one of these sentences mentioned Kodak's 1985–86 change in corporate policy.

[7] This conclusion would be unremarkable in a discussion of consumer fraud cases. But it is a relatively new idea for antitrust.

that imperfect information can trump the workings of an otherwise competitive market and cause it to behave suboptimally. Imperfect information can be the equivalent of traditional market share-based market power.

This same manifestation of imperfect information also caused the Court to define the relevant market in a narrow manner. Imperfect information permitted the lock-in, and the Court defined the market from the consumers' perspective after the lock-in was in place. If consumers' information had been perfect they would have known that the total price of a Kodak package, consisting of a machine, service, and parts, would have been excessive, and they instead might have purchased a competing package. But consumers did not consider these alternatives as seriously as they should have because the information imperfections (the calculation complexities) caused them erroneously to believe they should purchase from Kodak. In antitrust, a relevant market usually is defined in terms of the substitute products to which a purchaser might reasonably turn.[8] Information imperfections might mean that Kodak could raise the price of its package 5 percent above the competitive level successfully. Another important lesson of Kodak is that imperfect information can be a crucial factor in defining relevant markets.

*Kodak's* second reliance on information failures involved customers' inability to perform relatively complex life-cycle pricing comparisons. When individual consumers are involved it often is obvious that information imperfections can prevent purchasers from making optimal purchasing decisions, but a noteworthy aspect of the decision is that all of the victimized purchasers in *Kodak* were businesses. The Court stressed that, as a factual matter, life-cycle pricing was extremely difficult to perform accurately.[9] Customers would have to perform this calculation for all brands on the market to be able to compare costs intelligently.[10]

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[8] *See, e.g.*, U.S. Department of Justice and Federal Trade Commission 1992 Horizontal Merger Guidelines (1992), *reprinted in* 4 Trade Reg. Rep. (CCH) ¶ 13,104 (asking consumers' response if prices rise by, e.g., 5%).

[9] Customers would have to know their machines' breakdown rates (in general and as a function of the use of the machines and the expertise of the operators). They would have to know the machine's trade in value, average usable life, repair cost, the cost to the corporation of the machine's downtime, the appropriate discount rate, etc.

[10] Some believe that businesses, unlike consumers, rarely can be deceived by imperfect information. However, *Kodak* involved copying services that were for most of its purchasers only a small percentage of their expenses. Law firms, for example, usually are expert in purchasing legal or secretarial services, but might lack expertise in purchasing copying machines. Moreover, the court noted that *Kodak* sold machines to large and sophisticated businesses at a lower price, and these sophisticated purchasers often performed their own service work. The Court further pointed out that government units often buy equipment and service separately. They do this not because they are unaware of the desirability of life-cycle pricing, but because the government units apparently concluded that life cycle pricing

The Court pointed out that this information was not available to consumers from their own experience,[11] and Kodak's competitors couldn't be trusted to supply it.[12] If plaintiff's imperfect information allegations were true[13] Kodak's practices could harm economic efficiency and consumer welfare in any of four ways that could be consistent with the facts in Kodak. The four possibilities are:

(1) The "sucker" or "low ball" possibility. Perhaps Kodak offered a low machine price followed by an unduly high price for parts and service. The required life-cycle pricing could have been so complicated that customers did not realize they were paying excessive amounts.

(2) Price discrimination against unsophisticated users. This possibility is similar to the previous one, but Kodak apparently permitted large sophisticated purchasers, who were unlikely to be fooled by the information difficulties, to buy parts at a reasonable price and perform their own service. Perhaps only unsophisticated purchasers paid excessive prices.

(3) Price discrimination against heavy users. A typical one-year service contract might cost, for example, $12,000 plus $.0004 per copy. Of course, the more a machine is used the higher the charges should be for a service contract, but it is possible that the service contracts were designed to extract maximum consumer surplus from heavy users.

(4) Monopoly in the service market. Competition usually leads to greater efficiency and lower prices, and the aftertie eliminated competition. Perhaps Kodak simply wanted more of the service business free from competitive pressures.[14]

The first three possibilities could lead to a wealth transfer from purchasers to Kodak. All four potentially can lead to economic inefficiency, although the economic effects of price discrimination are complex since price discrimination can lead to greater or lower economic efficiency.

Discovery could, of course, demonstrate the existence of alternative explanations that would be more likely to be procompetitive. For exam-

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is too complex to perform correctly. If they can just get the best separate prices for the machine, parts, and service they apparently will be better off.

The Court's conclusion is reinforced by the fact that the package consisting of a copying machine, its replacement parts, and service is in certain respects a credence good. Unlike the case involving many products, consumers who are overcharged when they purchase a Kodak package may never know that they have been overcharged.

[11] *Kodak*, 112 S. Ct. at 2086.

[12] *Id.*

[13] One would also want to know whether these complexities were inevitable, or whether Kodak attempted to deliberately make the calculations difficult.

[14] *See also* note 10, *supra*, for reasons why information imperfections make an anticompetitive scenario more likely and for reasons why reputation effects may matter relatively little.

ple, if Kodak's machines used a risky new technology, a low initial price followed by a high price for parts and service could shift risk from customers to Kodak. Even if the total package's price were high, this could just mean that consumers were in effect purchasing an insurance policy along with their machine. Alternatively, perhaps many customers were short of cash and a low initial price was desirable for this reason.

The Court did not hold that one of the above anticompetitive scenarios actually occurred. Plaintiff was merely given the opportunity to attempt to prove that one was more likely than one of the procompetitive possibilities.

*Kodak* thus dramatically crystallizes many of the differences between Chicago School and post-Chicago School antitrust analysis and suggests that, at least for now, the post-Chicago School has the opportunity to advance. Plaintiffs can at least attempt to prove their information-based allegations. The antitrust world is only now starting to attempt to discern *Kodak's* implications, including the following:

(1) Imperfect information can substitute for traditional market share-based market power and can make a market that structurally appears competitive behave anticompetitively. (Market share-based "safe harbors" are more likely to be inappropriate.)

(2) This imperfect information-based market power can harm consumers through price increases or by distorting consumers' choices among differentiated products.

(3) Imperfect information can create more narrowly defined relevant markets because it can effectively prevent customers from turning to certain potential substitutes. They may not know of an option's existence or, more likely, that it is a cost/effective option. A finding of narrower markets usually will have the effect of making it more likely that a firm will be found to have market power.[15]

(4) Businesses, like individual consumers, can make information-based mistakes that can cause them to be exploited. Consumer protection law's assumptions about individuals' capabilities, vulnerabilities, and needs can apply to businesses as well.

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[15] If a court is more likely to find market power it is more likely to declare a tying arrangement, vertical restraint, or monopolization strategy to be illegal. Merger results could, however, go either way. If both merging firms have larger market shares the merger is more likely to be illegal. If both firms are considered to be actual monopolies, however, the firms may not be considered to be in competition and the transaction might not be considered to be a horizontal merger.

(5) Information problems can be so great that they can affect the competition in entire markets. These concerns are now a part of antitrust law.

*Kodak*'s focus on imperfect information could have profound effects on the antitrust world. Our colleagues in the fields of consumer protection and contract law have taken imperfect information concepts very seriously for years. Now we have to take them equally seriously and begin to grapple with a significant and unanswered question arising from *Kodak*. When is information imperfect enough to affect the choice of a large percentage of customers[16] and detrimentally affect competition in a market? Since information is almost never perfect this matter of degree could be of the utmost importance. Although *Kodak's* direct precedential effects on tying cases will be important,[17] a broad interpretation of the case could shake the antitrust world. An expansive interpretation of *Kodak* could mean that information imperfections alone (without the aftertie, the change in corporate policy, the virtual absence of discovery by the plaintiff, or the other potentially limiting conditions that arose in *Kodak*) can turn certain practices into antitrust violations. Many other areas of antitrust law could be affected if we assume that information is often significantly imperfect and that these imperfections can cause businesses to make decisions that are exploitable through the use of practices that are of antitrust concern. At least four areas of antitrust could be substantially affected.

First, vertical restraints analysis could be affected significantly. Vertical restraints are often justified by imperfect information and the inability of the market to supply this information absent these restraints. Many of the efficiency arguments used to justify vertical restraints—including the point-of-sale special services "free rider" argument[18]—rely upon the existence of a large group of relatively ignorant consumers and a need by the business to supply information about a product. Vertical restraints may be one way to supply this information.[19]

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[16] The calculation complexities discussed *supra* note 9, may be similar to those involved in many purchase decisions, including automobiles and camcorders.

[17] *Kodak*'s direct precedental effects will be somewhat limited due to the relatively unusual factual circumstances involved, including the requirement of an aftertie and a customer lock-in due to significant switching costs, the change in corporate policy, and the fact that plaintiff had been permitted to take virtually no discovery.

[18] See Lester Telser, *Why Should Manufacturers Want Fair Trade*, 3 J.L. & ECON. 86, 89 (1960).

[19] United States v. Jerrold Electronics, 187 F. Supp. 545, 560–61 (1960), *aff'd*, 365 U.S. 567 (1961), allowed imperfect information to justify a tying arrangement. This case involved a tie between television antennas and the service contracts to repair these antennas. The tie was justified because, if the television didn't work following service by someone other than Jerrold Electronics, consumers might not know whether the television's failure to work was due to a problem with the antenna or a problem with its servicing. Since the

If we grant that consumers are often ignorant it should be unsurprising that purely vertical restraints can be used to disadvantage them. Professor Warren Grimes recently showed how retailers can use resale price maintenance to take advantage of consumers' information inadequacies in a way that causes consumers to be exploited.[20] Professor Grimes explains how resale price maintenance can be used to guarantee large retail commissions so salespeople will have an incentive to "push" certain brands of products. Grimes' model hinges on imperfect information by consumers because, if consumers knew that the only reason why the sales clerks were pushing particular brands was so that the sales clerks would get a higher commission, the scheme would not work. Imperfect information is also the foundation of Robert Steiner's and Professor Sharon Oster's analyses of the anticompetitive use of resale price maintenance in the Levi Strauss case.[21] Imperfect information can also lead to the anticompetitive imposition of exclusive dealing arrangements,[22] and information problems also featured in Professor Howard Marvel's analysis of a tying arrangement that did not involve an aftertie.[23]

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manufacturer did not want to be blamed for improper service work performed by another company it forced everyone who purchased its antenna to also buy a service contract. The Court permitted Jerrold Electronics to employ this tie. If information had been perfect the tie would not have been needed.

[20] Warren S. Grimes, *Spiff, Polish and Consumer Demand Quality: Vertical Price Restraints Revisited*, 80 CALIF. L. REV. 815 (1992).

[21] When jeans were a relatively new product for middle-class consumers Levi Strauss had to use resale price maintenance to guarantee retailer margin and in effect buy shelf space. During this period consumers' imperfect information concerning this relatively new product led to the procompetitive imposition of resale price maintenance. After the product was well established, however, resale price maintenance was no longer needed, and anticompetitively kept prices at too high a level. Imperfect information on the part of Levi Strauss caused the company to fail to realize that it should have changed marketing strategies. It kept using resale price maintenance longer than so doing was optimal for society (and longer than it was optimal for Levi Strauss). *See* Sharon Oster, *The FTC v. Levi Strauss: An Analysis of the Economic Issues, in* IMPACT EVALUATIONS OF FEDERAL TRADE COMMISSION VERTICAL RESTRAINT CASES 47 (Federal Trade Commission, Ronald N. Lafferty, Robert H. Lande, and John B. Kirkwood eds. 1984) [hereinafter IMPACT EVALUATIONS]. (This study also contains citations to Robert Steiner's unpublished analysis of the *Levi Strauss* case.)

[22] Gerald Brock's analysis of the Federal Trade Commission industrial gases cases involved such a situation. The industrial gases market was changing, but manufacturers realized that the change was occurring before their gas distributors realized it. The manufacturers locked their retailers in with exclusive dealing contracts. The retailers realized too late that the exclusive dealing arrangements had disadvantaged them and competition. Imperfect information (an asymmetry of information since the gas producers knew more about the changing nature of industrial gases market than the retailers) explained the imposition of the tie. *See* Gerald Brock, *Vertical Restraints in Industrial Gases, in* IMPACT EVALUATIONS, *supra* note 21, at 386.

[23] Professor Howard Marvel analyzed a technological tie between hearing aids and batteries, and concluded that the purpose of the tie was to impose price discrimination against heavy users of hearing aids. Consumers could, in theory, have engaged in life-cycle pricing (they could have calculated the discounted present value of the hearing aid and the batteries they were likely to buy). Since consumers were unable, as a practical matter, to engage in

Imperfect information's consequences also could affect the legality of franchisor/franchisee relationships. Once a franchise contract is signed both parties often are locked in to some degree. Assume, consistent with *Kodak*, that there is imperfect information at the time of the signing of the franchise agreement and that some franchisees don't really understand what they are signing. As time passes rents might accrue due to the efforts of the franchisee—perhaps the franchise accumulates goodwill that is largely attributable to the franchisee's efforts. The franchisor could engage in rent-seeking behavior using tying arrangements or other vertical restraints to acquire this goodwill from the franchisor.[24] Absent imperfect information this rent extraction would not be a concern, for no franchisee would sign a franchise arrangement that would enable the franchisor unfairly to extract its goodwill. But if, consistent with *Kodak*, we posit imperfect information at the time of the franchise contracts' signing, this kind of scenario might become an antitrust concern. Could the contracts that contained the "unfair" tying arrangements or other vertical restraints constitute antitrust violations?

Predatory pricing also becomes more plausible if we assume imperfect information—i.e., if we assume that even businesses can be fooled or make mistakes. If information is perfect, successful predation, including the necessary recoupment of short-term losses, must be extremely rare.[25] A post-Chicago School view of the world, based upon the belief that imperfect information is more common, would conclude that predation

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this life-cyle pricing they were exploited through the tie. See *Vertical Restraints in the Hearing Aids Industry, in* IMPACT EVALUATIONS, *supra* note 21, at 271, 328–29.

[24] For example, the franchise contract could require that pizza franchisees purchase all of their supplies from the franchisor at a monopoly price.

[25] See Richard O. Zerbe, Jr. & Donald S. Cooper, *An Empirical and Theoretical Comparison of Alternative Predation Rules*, 61 TEX. L. REV. 655, 658 (1982). The authors explain: "Predatory pricing is a strategy for creating or changing expectations and can only occur when expectations are different or imperfect, or when information is imperfect." (footnote omitted) (The omitted footnote reads: "Predation can occur when information is perfect, but actual price cuts would not occur in that case. With perfect information, a simple threat would be sufficient, and the predator would never need to cut prices actually. Hence, the predator and the prey would immediately strike a bargain, agreeing to a merger, a buy-out, or some other settlement, for all future action and reaction would be known. In the more realistic situation in which information is imperfect predatory pricing can be used as a means of conveying information in order to change expectations. Once the predatory cut is completed, the victim would only change his behavior if the cut changed his expectation about the possibility of future cuts. Predatory price cuts will therefore only occur when the predator expects to change the target's expectations about the predator's intention of continuing or engaging in further price cuts. From this perspective, predatory pricing is effective only insofar as it threatens further predatory activity. This phenomenon was first noted in Zerbe, *The American Sugar Refining Company: 1887–1914: The Story of a Monopoly*, 12 J.L. & ECON. 339, 363 (1969). *See also* RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 124 (1972).")

is more common. Even old-fashioned "deep pocket" predation[26] can occur, as well as other types such as "reputation" predation[27] and "noisy pricing" predation. For example, if pricing and other terms are as complex as the life-cycle pricing involved in *Kodak*, a firm may not realize that it was being predated against. A firm might not take counter-measures because it would instead believe that it was going bankrupt due to the normal workings of the marketplace. Why struggle if you believe that the would-be monopolist is more efficient than you?

*Kodak*'s focus on imperfect information could even breathe new life into the Robinson-Patman Act. Violations of the Robinson-Patman Act require price discrimination. Before *Kodak*, traditionally defined market share-based market power probably was a prerequisite for illegal price discrimination. Imperfect information, however, can also permit price discrimination to occur since a firm may not know how much it actually pays for its purchases. *Kodak* showed that a business may not know what it effectively pays for a product over its life cycle, and similar pricing complexities can arise if credit terms, advertising allowances, return policy, service, special promotions, and other aspects of the sale are considered. These complications also can make it especially difficult for one company to compare what it pays with the prices that its competitors pay.[28] Moreover, a firm is much more likely to attempt to give a discount only to some of its customers when information is imperfect and other customers in the same geographic market are unlikely to discover these discounts. Thus, imperfect information could, in a Robinson-Patman setting, be a substitute for traditional notions of market share-based

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[26] For example, if information is perfect and a would-be predator lowers price, an equally efficient competitor will have an incentive to mothball its plant and reopen it after the predation ends. If the intended victim runs out of money in the short run it can get a loan and repay the loan out of its expected future monopoly profits. Since this mothballing can happen, the antecedent predation won't often happen. Matshushita Elec. Indus. Corp. v. Zenith Radio Corp., 475 U.S. 574 (1986) cited Judge Bork and other Chicago School analysts extensively and essentially embraced the view that predatory pricing was extremely scarce.

The antipredation scenario might not work, however, if information is imperfect. Suppose the owner of the mothballed factory goes to a bank for a loan. The banker probably would say—due to imperfect information—that he or she was not certain that the victim was as efficient as the monopolist. The banker therefore would either deny the loan or would loan only at an extremely high rate. Thus, if information is imperfect even old-fashioned deep pocket predation might be possible.

[27] If a company can develop a reputation (perhaps undeserved) for being irrational, its potential victims might not fight back. Why struggle if the would-be monopolist is believed to be willing to do whatever it takes to destroy its competitors? Of course, firms operating in multiple markets can establish a reputation for predation that does not require imperfect information. *See* RICHARD A. POSNER, ANTITRUST LAW 186 (1976).

[28] Imperfect information thus might effectively satisfy the Robinson-Patman Act's "competitive effects" requirement.

market power, and provide the motive or cover for illegal price discrimination.

*Kodak* therefore illustrates the crucial role that imperfect information plays today in antitrust analysis and also raises the possibility that its role could expand in the future. While it is impossible to predict how much difference information issues might play in the future, this clearly is an area that requires further analysis by the antitrust community.