ARTICLES

THE THREE TYPES OF COLLUSION: FIXING PRICES, RIVALS, AND RULES

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Antitrust law has long held collusion to be paramount among the offenses that it is charged with prohibiting. The reason for this prohibition is simple—collusion typically leads to monopoly-like outcomes, including monopoly profits that are shared by the colluding parties. Most collusion cases can be classified into two established general categories.[1] Classic, or "Type I" collusion involves collective action to raise price directly.[2] Firms can also collude to disadvantage rivals in a manner that causes the rivals' output to diminish or causes their behavior to become chastened. This "Type II" collusion in turn allows the colluding firms to raise prices.[3]

Many important collusion cases, however, do not fit into either of these categories. The conventional categories simply cannot classify or explain cases like *National Society of Professional Engineers v. United States*,[4] *Bates*

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1. We use "collusion" as shorthand to distinguish anticompetitive joint activity from benign or procompetitive joint activity, which usually is labeled a "joint venture." For some of the complexities that arise in distinguishing between these categories, see Howard H. Chang, et al., *Some Economic Principles for Guiding Antitrust Policy Toward Joint Ventures*, 1998 COLUM. BUS. L. REV. 223. Because this Article analyzes only horizontal collusion, all uses of the term "collusion" should be understood to mean only horizontal collusion.

2. Formally, classic collusion exists when firms cooperate to move toward a monopoly outcome. They raise prices jointly, either by controlling the prices directly, by agreeing to restrict output, or by dividing the market into submarkets, each of which is monopolized by a cartel member. *Infra* Part I.A.

3. *Infra* Part I.B.

4. 435 U.S. 679 (1978). The National Society of Professional Engineers promulgated an ethical code that forbade members from discussing price until immediately before contracts were signed. *Id.* at 683-84. Customers typically made a considerable investment in time working with the engineers to fully specify the project in detail. Prices,

v. State Bar of Arizona,[5] *FTC v. Indiana Federation of Dentists,*[6] *Detroit Auto Dealers Ass'n*,[7] and *United States v. Stop & Shop Cos.*[8] Moreover, none of the rationales offered for Type I or II collusion is capable of explaining why the conduct in these anomalous cases was anticompetitive. Indeed, most of these exceptional cases involved heterogeneous products and individually-negotiated or otherwise non-transparent prices that made traditional price fixing unlikely. Even though each of these cartels was properly condemned because each had engaged in anticompetitive conduct, the cases are nonetheless troubling analytically. None involved an agreement either to raise prices, to restrict output, or to divide markets. Nor did any involve collusion to disadvantage rivals. Most importantly, in each case cartel members continued to set prices and output independently.

Instead, collusion in each case permitted firms to manipulate the rules under which the independent decisions of the colluding firms were made. The altered rules induced anticompetitive changes in the non-cooperative equilibrium reached in the marketplace. Simply put, the rules of competition

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however, were not revealed until after the specification process was complete. Although a customer could refuse to engage the engineer after learning of her rates, the customer's ability to comparison shop based upon the prices of engineering services was severely impaired. For a more extensive discussion of this case, see *infra* Part II.A.2.e.

5. 433 U.S. 350 (1977). *Bates* involved an ethical code promulgated by a group of competing lawyers that mandated a nearly total prohibition against advertising by every member of that profession. *Id.* at 353-54. The Court held that advertising by lawyers would have been likely to lead to lower prices for consumers and, on the whole, been beneficial. *Id.* at 377-82. For a more extensive discussion of this case see *infra* Part II.A.1.a.

6. 476 U.S. 447 (1986). *Ind. Fed'n Of Dentists* involved a group of competing dentists that agreed not to provide patients' x-rays to insurance companies. *Id.* at 448-509. The x-rays helped the insurers determine whether certain dental procedures were necessary. Instead, the dentists agreed to require the insurance companies to come visit each dentist's office to examine patient records. *Id.* at 450. This requirement made it much more difficult for the insurers to detect fraud and unnecessary dental work. *Id.* For a more extensive discussion of this case see *infra* Part II.B.1.

7. 111 F.T.C. 417 (1989). Members of the Detroit Auto Dealers Association entered into an agreement to severely restrict the evening and weekend hours they would be open. Detroit Auto Dealers Ass'n, 111 F.T.C. 418, 420 (1987) (intial decision). This caused shopping to become significantly more difficult for consumers. *See id.* at 423. The agreement led to several types of harm to consumer welfare, including prices that were higher than they would have been if the market had been functioning with shopping hours that had been set by competition. *Id.* For a more extensive discussion of this case see *infra* Part II.A.2.a.

8. 19854-2 Trade Cas. (CCH) ¶ 66, 689 (Nov. 9, 1984). Grocery stores agreed not to offer double the face amount of manufacturer coupons. *Id.* Their agreement did not set either grocery store prices or margins, but merely discounts from those margins. The effect of the agreement was felt principally by customers most willing to comparison shop among different grocers. *Id*. For more detailed consideration of this case, see *infra* note 165 and accompanying text.

were changed and the scope of competition was narrowed.

The collusive conduct in these cases permitted the cartel members to insulate themselves from one another, at least partially, thereby establishing market segments within which each of the cartel members had increased pricing freedom. Their newfound isolation provided benefits similar to those attainable from market power acquired in more traditional fashion. By increasing the space between cartel members, each achieved the power to raise prices. In these cases, collusion could generate profit increases even though the competing firms did not get together to set prices. Rather, they competed less vigorously or in a restricted manner in the environment their collusion had altered. The colluding firms continued to compete in some dimensions, but the fight had been fixed—the rules of competition had been rigged, and the firms did not have to compete as fiercely.

The most straightforward examples of this type of collusion involve efforts to soften competition among rivals by limiting the information available to consumers. Examples include direct restrictions on advertising,[9] agreements to boycott publications that provide pricing information to consumers,[10] or instructions to consumers on ways to search or bargain more effectively.[11] In each of these examples, collusion serves to raise consumer search costs or to make searching impractical; the result is to insulate cartel members to some degree from certain forms of competition among themselves. In other instances, collusion essentially separates customers, and permits the colluding firms to engage in price discrimination—for example, through the use of agreements not to provide discounts to certain customers.[12]

In this Article we will explore a number of examples of previously unexplained or uncategorizable cartels that can be explained by this construct. We will show that, together, they form a third general category of anticompetitive behavior that we refer to as "Type III" collusion.[13]

Part I of this Article will briefly discuss the two conventional categories of collusion. Part II will then demonstrate how collusion to manipulate the rules of competition differs from traditional paradigms, and why many important cases fall within this new category. Part III will briefly discuss some cases that contain practices characteristic of more than one category. Part IV will then discuss how the welfare effects of this newly described

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9. *See infra* Part II.A.1.

10. *See infra* Part II.A.1.c.

11. *See infra* Part II.A.2.

12. *See infra* Part II.C.

13. It seems likely that every unilateral antitrust violation also can be classified into one of these three categories. Unilateral actions are not, however, the focus of this Article. Nevertheless, it may be true that in some sense all antitrust cases could be placed in one of six meta-categories.

collusion paradigm differ from those arising from the other two types of collusion. This Part will also demonstrate that rule fixing is not always anticompetitive. Part IV will show how firms can join to fix the rules of competition for benign or procompetitive purposes. Finally, Part V provides a brief conclusion that summarizes some of the implications of our proposed classification system.

I. THE TWO CONVENTIONAL CATEGORIES OF ANTICOMPETITIVE COLLUSION

A. Classic ("Type I") Collusion

The classic understanding of collusion is that firms collude in order to mimic the actions of a monopoly.[14] The monopoly outcome arises as the cartel members agree[15] either to restrict output,[16] to raise prices, or to divide markets.[17] This agreement allows cartel members to maximize their profit

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14. "The pure collusive practice involves cooperation between competing sellers (in the form of an agreement, express or tacit, limiting competition, or a merger or other method of fusion) to raise the market price above the competitive level." RICHARD A. POSNER, ANTITRUST LAW: AN ECONOMIC PERSPECTIVE 28 (1976).

Although cartel agreements are illegal, when this type of market power is exercised unilaterally, by a monopolist, it usually is legal. *See, e.g.,* United States v. Grinnell Corp., 384 U.S. 563 (1966). Only in rare occasions, such as when it was unlawfully acquired through an illegal merger, or when it is manifested through practices such as certain tying arrangements, can it be illegal. *See, e.g.,* Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2 (1984). A cartel also can pay sub-competitive prices to suppliers. The analysis of monopsony cartels is analogous to that of monopoly cartels. *See, e.g.,* ROGER D. BLAIR & JEFFREY L. HARRISON, MONOPSONY: ANTITRUST LAW & ECONOMICS (1993). Monopsony cartels also can be illegal. *See, e.g.,* Woods Exploration & Producing Co. v. Aluminum Co. of Am., 438 F.2d 1286 (5th Cir. 1971).

15. This Article will only analyze cases where an agreement can be shown. It will not discuss cases in which facilitating practices can be alleged to be adopted unilaterally by firms in search of a share of a monopoly outcome. For example, this Article will not discuss unilateral adoption of advance announcements of price increases, most favored customer clauses, or uniform delivered pricing practices. The Federal Trade Commission unsuccessfully challenged these types of practices in *E.I. du Pont de Nemours & Co. v. FTC*, 729 F.2d 128 (2d Cir. 1984). *See generally* Donald S. Clark, *Price Fixing Without Collusion: An Antitrust Analysis of Facilitating Practices after* Ethyl Corp., 1983 WIS. L. REV. 887.

16. The cartel can seek monopoly profits by imposing quotas on its members. OPEC is one cartel that allocates this type of quota to its members. *See* DENNIS W. CARLTON & JEFFREY M. PERLOFF, MODERN INDUSTRIAL ORGANIZATION 214-28 (2d ed. 1994).

17. For collusion to be effective many prerequisites must exist, including market power in a well-defined market and effective barriers to the entry of new competition. Otherwise the market's natural tendency towards self-correction will prevent the cartel from harming consumer welfare. For a more detailed discussion, see CARLTON & PERLOFF, *supra* note 16, at 175-228.

directly, at the expense of consumer welfare.[18]

There are several variations of classic collusion. Direct price fixing is the most straightforward.[19] Alternatively, the cartel can achieve a monopoly outcome for the market as a whole by dividing the market into competition-free portions assigned to individual cartel members. Cartels can do this by assigning exclusive territories or customers.[20] Another common variation, bid rigging,[21] effectively creates a monopoly in the market and allocates it to different cartel members over time.[22]

Sometimes the practices over which collusion occurs are ancillary to the agreements over the prices themselves. As Richard Posner notes, "[c]onfronting a price-fixing rule that attaches conclusive significance to proof of an 'actual' agreement to fix prices, competitors have an incentive to engage in all of the preliminary steps required to coordinate their pricing but to stop just short of 'agreeing' on what price to charge."[23] An anticompetitive agreement can facilitate price-setting, for example, by making cheating on a cartel price transparent and hence unattractive.[24] Rivals can also agree upon

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18. For a formal welfare analysis see JEAN TIROLE, THE THEORY OF INDUSTRIAL ORGANIZATION 67 (1988).

19. For a discussion of straightforward price-fixing arrangements, see 1 A.B.A. SEC. ANTITRUST LAW, ANTITRUST LAW DEVELOMENTS 78-87 (4th ed. 1997). The vitamin cartel is a recent example of a large price-fixing cartel. *Price Fixing: Hoffman-LaRoche, BASF Plead Guilty, Agree to Pay Over $700 Million in Fines*, 76 Antitrust & Trade Reg. Rep. (BNA) 558 (May 20, 1999); *see also Price Fixing: Tokai Carbon Will Plead Guilty, Pay Fine for Role in Graphite Electrode Cartel*, 76 Antitrust & Trade Reg. Rep. (BNA) 484 (May 6, 1999).

Sometimes price fixing cartels assign responsibility for marketing the cartel members' products to a joint sales agency. The DeBeers diamond cartel has long used this device successfully. For a discussion of joint sales agencies, see GEORGE J. STIGLER, THE ORGANIZATION OF INDUSTRY 41 (1968).

20. ANTITRUST L. DEVS., *supra* note 19, at 97-100.

21. *Id.* at 66-67; *see also* United States v. Reicher, 983 F.2d 168, 170 (10th Cir. 1992) (defining bid rigging as "[a]ny agreement between competitors pursuant to which contract offers are to be submitted [to] or withheld from a third party . . ."). Sometimes bid-rigging will occur in procurement auctions for projects with perfectly inelastic demand over a range of prices extending substantially above the competitive price, such as certain public works projects. In these cases output might not decrease.

22. There are many variations of bid-rigging. *See supra*, note 21. For example, sometimes members pool profits. For a classic example, see generally *Addyston Pipe & Steel Co. v. United States*, 175 U.S. 211 (1899).

23. POSNER, *supra* note 14, at 135.

24. For example, Westinghouse was alleged to have agreed through a license with General Electric to adopt the terms of sale chosen by General Electric for sales of light bulbs. The terms included resale price maintenance, which might have been used to ensure that any discounts offered to light bulb wholesalers would appear transparently at the retail level. Lester G. Telser, *Why Should Manufacturers Want Fair Trade?*, 3 J.L. & ECON. 86, 99-104 (1960); *see also* ANTITRUST L. DEVS., *supra* note 19, at 64-74.

strategies to strengthen secret or tacit agreements,[25] or strategies that punish consumers or cartel members who deviate from approved prices.[26] Although these variations of classic collusion are less straightforward than simple price fixing, each has in common a collective decision to attain monopoly pricing directly or to facilitate monopoly coordination by reducing the likelihood or deviations from monopoly pricing.

Finally, the Type I collusion may in some cases involve collusion over dimensions other than price, when the goal of the collusion is nonetheless to mimic the result that a monopolist could obtain in the marketplace. For example, firms may agree to change product characteristics or to delay innovation in order to reduce costs.[27] Still, the cartel's desire for a collective shift from competitive to monopoly pricing distinguishes these situations from those we will describe in Part II, which are designed to manipulate non-cooperative outcomes.

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25. This can be accomplished through an explicit agreement over the collection and dissemination of information. For classic examples, see generally *Maple Flooring Mfrs' Ass'n v. United States*, 268 U.S. 563 (1925); and *Am. Column & Lumber Co. v. United States*, 257 U.S. 377 (1921).

26. Glenn Ellison, *Theories of Cartel Stability and the Joint Executive Committee*, 25 RAND J. ECON. 37, 48-56 (1994) (discussing the economic effects of secret price cuts).

27. *See, e.g.,* Nat'l Macaroni Mfrs. Ass'n, 65 F.T.C. 583 (1964), *aff'd,* 345 F.2d 421 (7th Cir. 1965). The macaroni manufacturers in this case had agreed to reduce the proportion of durum wheat in their products. Although the case involved a number of complications, to the extent that their motivation for doing so was to depress the price of durum wheat, such an agreement would enable them to operate effectively as a monopsony.

There have been a number of alleged conspiracies not to innovate. For example, the patent pool at issue in *United States v. Mfrs. Aircraft Ass'n*., 1976-1 Trade Cas. (CCH) ¶ 60,810, was supposed to have limited innovation by its members. *But see* George Bittlingmayer, *Property Rights, Progress, and the Aircraft Patent Agreement*, 31 J.L. & ECON. 227, 232 (1988).

One more example of an allegation of this type is provided by *United States v. Visa USA, Inc*., 1999-2 Trade Cas. (CCH) ¶ 72,584. The Department of Justice alleged that the Visa and MasterCard corporations agreed upon a number of practices, including an agreement not to engage in certain types of product development. The firms allegedly agreed not to develop and market, or delayed development and marketing of smart cards, commercial cards, and methods for making Internet transactions more secure. The government's allegation that "the amount of money that Visa spent—was reduced because it became apparent that it was going to be a dual world" indicates clearly the link between this agreement and the restricted innovation that a monopolist supposedly would choose for itself.

Note, however, that some collusive arrangements that have been interpreted as Type I collusion to reduce costs are more appropriately treated at Type III collusion. *See infra* Part II.A.2.a and text accompanying note 88 (discussing *Detroit Auto Dealers Ass'n*).

B. Collusion to Disadvantage Rivals ("Type II" Collusion)

As outlined in the previous section, the first category of collusive agreement involves mechanisms to control the behavior of the members of the cartel themselves—the agreement looks inward. A second general category of collusion consists of agreements to take action jointly to harm rivals that are not party to the collusion.[28] Firms can target competitors or potential competitors in a manner that subsequently permits the colluding firms to raise prices and profits in either of two ways.

First, firms can reduce their rivals' revenues through such tactics as boycotts[29] or predatory pricing.[30] When effective, these practices cause rivals to exit the market or to curb their competitiveness. After the victims have been eliminated or cowed, the predators are able to raise their prices, presumably through an agreement among themselves.[31]

Alternatively, firms can raise their rivals' costs in a manner that enables the colluders to raise prices under an umbrella created by the higher prices that the victims must charge.[32] Firms can agree to take actions that will

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28. Although analytically distinct, in practice, agreements to disadvantage rivals often occur in conjunction with agreements that should be classified under classic collusion. In fact, the presence of one form of collusion could reinforce or make more likely the other form. Thomas G. Krattenmaker et al., *Monopoly Power and Market Power in Antitrust Law*, 76 GEO. L.J. 241, 251 (1987).

Other times, agreements to disadvantage rivals have the effect of manipulating the rules of non-cooperative competition (a category of collusion that will be discussed in Part II of this article). Practices that give rise to both types of harm will be analyzed in more detail in Part III, *infra*.

29. *See, e.g.*, N.W. Wholesale Stationers, Inc. v. Pac. Stationery & Printing Co., 472 U.S. 284 (1985); Fashion Originators' Guild of Am. v. FTC, 312 U.S. 457 (1941).

30. Although cases in which predatory pricing is alleged are easy to find, there is considerable debate over how often successful predation actually occurs. Scholars also disagree over whether the antitrust laws should attempt to deal with this phenomenon. This Article does not enter into this debate. For summaries of the scholarly literature and empirical arguments as to how common anticompetitive predatory pricing is, see William J. Baumol, *Predation and the Logic of the Average Variable Cost Test*, 39 J.L. & ECON. 49 (1996); Richard O. Zerbe, Jr. & Donald S. Cooper, *An Empirical and Theoretical Comparison of Alternative Predation Rules*, 61 TEX. L. REV. 655 (1982).

31. There are many variations of this simple paradigm, and countless complexities and problems associated with various scenarios, all of which are beyond the scope of this article. For a discussion of some of these issues, see Frank H. Easterbrook, *Predatory Strategies and Counterstrategies*, 48 U. CHI. L. REV. 263 (1981) and James D. Hurwitz & William E. Kovacic, *Judicial Analysis of Predation: The Emerging Trends*, 35 VAND. L. REV. 63 (1982).

32. *See, e.g.*, Thomas G. Krattenmaker & Steven C. Salop, *Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power over Price*, 96 YALE L.J. 209 (1986); Krattenmaker et al., *supra* note 28.

disadvantage rivals, whether actual or potential, thereby forcing the rivals to raise prices. This, in turn, permits colluding firms either to raise prices or to deter entry that would otherwise erode prices.[33] Anticompetitive behavior by cartels that raises their rivals' costs is thought to be especially common when government regulation is involved.[34] Of course, many corporate actions that raise rivals' costs or reduce rivals' revenues are based upon efficiency and are socially desirable.[35] Nevertheless, collusion to disadvantage competitors, like classic collusion, is a distinct category of anticompetitive conduct. Still, these two traditional categories of collusion do not explain a significant amount of anticompetitive joint corporate activity.[36]

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33. *See, e.g.*, Allied Tube & Conduit Corp. v. Indian Head, Inc., 486 U.S. 492 (1988); Reazin v. Blue Cross & Blue Shield, 635 F. Supp. 1287 (D. Kan. 1986), *discussed in* Krattennmaker et al., *supra*, note 28, at 258 n.77.

34. *See, e.g.*, United Mine Workers of Am. v. Pennington, 381 U.S. 657 (1965); *see also* Howard P. Marvel, *Factory Regulation: A Reinterpretation of Early English Experience*, 20 J.L. & ECON. 379 (1977).

35. When a firm invests in innovation, for example, this can have the effect of raising its rivals' costs. Antitrust policy should be careful, of course, not to deter socially desirable innovation. For a discussion of this, see Krattenmaker & Salop, *supra* note 32, at 277-82.

36. The two categories of collusion discussed thus far are familiar, and not surprisingly, other authors have previously offered classification schemes to deal with other types of collusion as well. Our approach is similar in certain respects to the framework suggested by James Langenfeld and Louis Silvia. They cogently analyzed and classified a group of 81 FTC horizontal restraint cases that resulted in Commission Orders between 1980 and 1992. Their first two categories, traditional collusion and raising rivals' costs, are nested within our Types I and II. To explain the remaining cases, they introduce a third category, which they term "raising own costs." James L. Langenfeld & Louis Silvia, *Federal Trade Commission Horizontal Restraint Cases: An Economic Perspective*, 61 ANTITRUST L.J. 653, 655 (1992). They define the third category broadly: "Anticompetitive agreements or restraints under the raising own costs theory involve placing restrictions on the colluding group itself (or its customers)." *Id.* Their formulation is an interesting one, but is, in our view, simultaneously too broad and too vague to usefully categorize the cases we deal with here.

As noted, our Type I collusion corresponds to their first category. Our second category, Type II collusion, consists of practices that raise rivals' costs (their second group) and also practices that reduce rivals' revenue. Our Type III category is in some respects similar to their third category—many restrictions can be explained either in terms of a group of firms raising their "own costs," or in terms of "rule fixing." This is especially true since their term "raising own costs" includes practices that raise customers' costs. Unfortunately, however, a group of firms may accept increases in its own costs in order to raise its rivals' costs by even more. This differential cost increase was the motivation for the willingness of steam-powered cotton mill owners in nineteenth-century Great Britain to seek cost-increasing restrictions on the hours of child laborers; mills dependent on less predictable water power were far more affected by the restrictions. *See* Marvel, *supra* note 34, at 389. Similar arguments have been made to explain manufacturer support for safety and environmental regulations. *See, e.g.*, Michael T. Maloney & Robert E. McCormick, *A Positive Theory of Environmental Quality Regulation*, 25 J.L. & ECON. 99 (1982). Thus the proposed "raising own costs" classification

II. "TYPE III" COLLUSION: MANIPULATING THE RULES UNDER WHICH COMPETITION TAKES PLACE

A. Distancing and Differentiating Products to Soften Competition

Thus far this Article has emphasized that classic Type I collusion involves agreements to cooperate directly toward the goal of monopoly profits or, at a minimum, toward the best cooperative outcome that the collaborators can obtain without attracting outside attention or destabilizing their agreement.[37] The cases discussed in this section, however, do not involve agreements over market outcomes. This Article has also emphasized that collusion to disadvantage rivals is outward looking. In contrast, the collusion in the following cases is inward looking, imposing restrictions upon the cartel's members instead of increasing the costs of sellers outside the agreement.

Indeed, the market participants in each of the cases discussed in this Part independently determined price, output levels, or both. They have, however, jointly manipulated the rules of competition to ensure that the equilibria in these markets, despite not being determined cooperatively, yielded supra-competitive prices and profits. They proceeded to affect rules indirectly, rather than directly by choosing outcomes, either because of the legal strictures against collusion or because the parties to the agreement would not, had they implemented classic collusion, have effectively been able to monitor compliance by their rivals.[38]

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overlaps significantly with Type II collusion.

In fact, most of the cases that we classify as "rule-fixing" do not raise the costs of the cartel's members. The hour limitations in *Detroit Auto Dealers Ass'n*, for example, might have actually decreased the colluders' costs since they were open fewer hours. Neither the advertising restriction cases or many of the other cases we analyzed necessarily increased the cartel members costs. Further, our Type III restraints include practices that affect price discrimination and discounting. These practices need not increase the cartel members' costs.

Langenfeld and Silvia are correct that if the practices in the third category do not raise the cartel members' own costs, they raise their consumers' costs. However, every cartel—Types I, II, and III—raises consumers' costs. But recognizing this does not explain very well why these cases differ from the other cartel cases. We believe that our approach to Type III cartels, framing the issues in terms of fixing the rules of competition to isolate and exploit consumers, better conveys the mechanism for and explanation as to why these practices are anticompetitive.

37. For an example of a cooperative agreement that fell short of monopoly pricing, see *New York v. Hendrickson Bros.*, 840 F.2d 1065, 1084 (2d Cir. 1988), *cert. denied*, 488 U.S. 848 (1988) (sellers agreed to limits on winning bids agreed upon in hopes of avoiding detection of collusion by purchaser).

38. For example, some markets involve individually negotiated transactions that would be very difficult for a cartel to observe. Collusive agreement and monitoring will also

Typically, the goal of this "Type III" collusion is to change the rules of competition in a manner that lessens the price competition among cartel members. In economics, the simplest available model of non-cooperative price competition deals with markets in which identical firms offer a homogeneous product for sale to a marketplace inhabited by fully informed consumers. Economists typically model price competition in such a market using the concept of Bertrand equilibrium.[39]

The Bertrand model's prediction for price competition is brutal indeed. Fully informed customers will choose to visit their lowest-priced outlets, forcing prices down to marginal cost, at least as long as the firms in question have not reached the limits of their respective capacities. It is little wonder that firms might wish to avoid the rigors of this competition, and that they will, if possible, adopt rules to soften its impact. These rules will be addressed as the prerequisites of intense Bertrand competition, principally that consumers must possess full information and that the products offered to consumers must be identical.

The principle of differentiation[40] holds that when confronted with the specter of this fiercely competitive environment, firms will make efforts to differentiate their products in order to soften price competition.[41] Customers who have a strong preference for the unique attributes of a firm's products, whether real or perceived, will be willing to pay a premium that varies

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be difficult if the cartel members produce products that differ from one another. Some of the restrictions discussed below, such as agreements not to advertise prices, will actually make classic collusion more difficult by making the prices of potential cartel members more difficult for rivals to observe.

39. Most non-cooperative game theoretic models of oligopoly seek a Nash equilibrium for the game under study. A Nash equilibrium is a set of actions for each player such that no player wishes to change its choice of action, given the actions of its rivals. In contrast to the monopoly model, for which the profit maximizing monopoly outcome can be obtained by consideration of the choice of either output or price, the Nash equilibrium for a game in which firms choose the quantity to offer (termed a Cournot equilibrium) is very different from the Nash equilibrium (termed a Bertrand equilibrium) that emerges when firms compete over prices. When choosing a quantity holding the quantities of rival firms fixed, each individual firm exercises a modicum of monopoly power. In contrast, a Bertrand equilibrium is very competitive: a firm, observing a price of its rival in excess of their common marginal cost, will wish to steal the entire market through a slight shading of the rival's price. The only equilibrium in such a game is for price to equal marginal cost, yielding no economic profits (revenues in excess of opportunity cost) to any of the market participants. Unlike perfect competition, where numerous rivals are required in order to render the actions of any one firm negligible, Bertrand equilibrium yields its low price equilibrium when two firms compete. CARLTON & PERLOFF, *supra* note 16, at 244-45.

40. *See* TIROLE, *supra* note 18, at 278, 286.

41. Differentiating a product from those of rivals means that the firm's demand curve will not be perfectly elastic (flat), but will instead exhibit some downward slope—a slight increase in price will not cause all of its customers to defect immediately.

according to the strength of that preference. A firm facing a downward-sloping demand curve has the ability to raise price above marginal cost, permitting it at least the possibility of earning some profit. Whether it can actually do so for long depends on the speed of entry into its market. But even if it is not sufficient to ensure increased profitability in the long run, downward-sloping demand is clearly desirable from the standpoint of a firm.

What will generate such demand? Consumers will not all defect instantly to a lower-priced rival if they prefer the products of their current supplier, or if they have limited knowledge of either the prices or the product characteristics offered by potential rivals. Firms therefore can generate downward-sloping demand by manufacturing distinctive products, selling them at locations separate from rivals, and taking action to limit their customers' knowledge of the offerings of others. If some of a firm's customers are more likely to defect to rivals than others, the firm would prefer to isolate those customers, offering special inducements not granted to loyal patrons. In many cases, firms can pursue unilaterally the strategies best suited to differentiate themselves from rivals, but in other cases, cooperative action may be optimal. Many, but not all, of these actions have the effect of raising consumers' search costs. We begin by considering the best-known strategy for differentiation: advertising.

1. AGREEMENTS TO LIMIT ADVERTISING

Advertising is among the leading instruments available to a firm wishing to differentiate its products from those of its rivals, thereby softening price competition.[42] Yet advertising can also inform consumers about product attributes in ways that stimulate comparison shopping, and thus competition. For this reason, cases involving restrictions on advertising constitute the first class of collusive agreements that we consider as candidates for softening competition in an anticompetitive manner.

When advertisements serve to differentiate products from one another, the separation that one firm achieves from a rival in consumers' minds may benefit the rival as well—each producer can target the customers who prefer its offerings, benefiting from customer loyalty by being able to increase prices. Coordination of advertising levels for such advertising are important only for advertising designed to expand the market for the product category in question.[43] But advertising need not increase separation of rivals through

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42. We do not mean to imply that advertising for product differentiation is necessarily harmful. New and improved products will often require advertising in order to be able to defeat familiar, but inferior, incumbents.

43. For example, the joint advertising campaign for milk is run by an association

product differentiation. Advertising that informs customers about alternatives enables consumers to compare products and can thereby stimulate price competition. An advertisement that announces the availability of a product to consumers of other firms may make these consumers more likely to switch brands. Indeed, advertising of search characteristics,[44] such as price and availability, increases the number of options for consumers and forces firms to compete more vigorously for those consumers. In essence, price advertising increases the ability of consumers to compare options, thereby lessening the effective separation of rivals and, accordingly, the price the rivals can charge.[45] Price advertising, unlike brand promotion, thus works counter to the principle of differentiation.[46]

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whose mission is one of "build[ing] demand for U.S. dairy produced dairy products on behalf of America's . . . dairy farmers." Dairy Management, Inc., *Who We Are*, *at* http://www.dairyinfo.com/about/who.html (last visited Nov. 12, 2000). Efforts include its "Ahh, the Power of Cheese" and "Got Milk?" campaigns. *See* American Dairy Ass'n, *I Love Cheese*, *at* http://www.ilovecheese.com (last visited Nov. 28, 2000); *Got Milk?*, *at* http://www.gotmilk.com/story.html (last visited Nov. 20, 2000); *see also Reinventing the Wheel*, HOUSTON CHRON., Mar. 11, 1998, at 1. In cases where advertising increases the market demand for a product, it is possible that agreements to facilitate advertising will be desirable in order to overcome free riding. Note, however, that demand-increasing advertising may also be undertaken unilaterally. For example, dental "quality and comfort advertising may induce some customers to obtain non-emergency care when they might not otherwise do so." *Cal. Dental Ass'n*, 128 F.3d at 728.

44. Search characteristics are those that can be verified prior to purchase. For instance, if a firm advertises a price of $19.95 for a particular video game cartridge, consumers can verify the price when they arrive at that firm's location prior to making a purchase. Indeed, both the price and the availability of the particular game are search characteristics. Characteristics of the game itself can include a mix of search and experience characteristics. A claim that the game has exceptional computer graphics may be verified by the consumer if the retailer offers demonstrations prior to purchase, but a claim that the game in question will provide hours of enjoyment to purchasers cannot be verified until the consumer has spent hours in front of a television screen. The latter claim is termed an experience characteristic. Phillip Nelson, *Advertising as Information*, 82 J. POL. ECON. 729, 730 (1974). Experience goods—those with important characteristics that cannot be verified prior to purchase—appear to be advertised much more heavily than search goods.

45. Knowledge of prices of rivals makes a firm's own customers more willing to defect, increasing the elasticity of demand (flattening the demand schedule) that the firm faces and lowering its profit-maximizing price, given the prices of rivals.

46. This pro-competitive view of advertising has been endorsed by the courts on a number of occasions. "Advertising 'serves to inform the public of the . . . prices of products and services, and thus performs an indispensable role in the allocation of resources.'" Morales v. Trans World Airlines, Inc., 504 U.S. 374, 388 (1992) (quoting Bates v. State Bar of Ariz., 433 U.S. 350, 364 (1977)). "Restrictions on advertising 'serv[e] to increase the difficulty of discovering the lowest cost seller . . . and [reduce] the incentive to price competitively.'" *Id*. (quoting *Bates*, 433 U.S. at 377). "Accordingly, 'where consumers have the benefit of price advertising, retail prices often are dramatically lower than they would be without advertising.'" *Id*. at 388-89 (quoting *Bates*, 433 U.S. at 377); *see also* Ill. Corporate Travel,

A market's firms, taken as a group, will typically benefit from suppressing such advertising competition, just as those same firms would benefit from suppressing price competition.[47] Absent restrictions, advertising levels will be too high just as prices will be too low, compared to those that would jointly maximize profits of the competitors. However, just as the goal of efforts to differentiate products is to affect the non-cooperative market equilibrium among firms, so too, the goal of a restriction on advertising is also to allow firms the space to unilaterally charge higher prices than they would be able to successfully charge in a market in which well-informed customers purchased products viewed as being very similar. The goal of the ad bans is not to facilitate collusion over prices, but instead to permit individual firms, acting independently, to achieve higher prices and margins. In this way, the antitrust condemnation of agreements to restrict advertising mirrors the concerns under the unilateral effects doctrine of merger analysis:[48] in each case the collusive pricing is not directly at issue. Regardless of whether the concern is a merger or a cartel, the fear is the conduct's ultimate effect on a non-collusive market equilibrium.

In sum, many attempts to control advertising cannot be interpreted as devices to facilitate a classic cartel agreement, but must instead be understood as designed to make consumer comparisons of the products offered by rival suppliers more difficult. This increased difficulty means that suppliers, acting independently, will choose higher prices than they would have if consumers had knowledge enough to shop and compare competing suppliers. The collusive agreement to restrict advertising is thus an agreement to affect non-cooperative pricing outcomes. This argument is well-illustrated by the following examples.

a. Bates v. State Bar of Arizona *and related cases*

The concern that restrictions on price advertising will raise prices even when suppliers choose prices non-cooperatively is now widely accepted in law.[49] In *Bates v. State Bar Ass'n*,[50] the Supreme Court remarked that the

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Inc. v. Am. Airlines, Inc., 889 F.2d 751, 754 (7th Cir. 1989) ("[T]he proposition that to forbid the advertising of discounts *is* to set price (at least to influence it) . . . [has] substantial support in both law and economics.") (emphasis in original).

47. Firms conspiring to restrict price advertising receive an additional benefit by avoiding the cost of the advertising.

48. *See* U.S. Dept. of Justice & Federal Trade Comm'n, Horizontal Merger Guidelines, § 2.2 (1992)(as amended April 8, 1997), *reprinted in* 4 TRADE REG. REP. (CCH) ¶ 13,104, at 20,573-8.

49. In a case concerned with a state's ban on advertising of liquor prices, the Supreme Court concluded that "common sense supports the conclusion that a prohibition

interest of consumers was served not only by rendering information to the individual,[51] but also by making markets perform better: "[C]ommercial speech serves to inform the public of the availability, nature, and prices of products and services, and thus performs an indispensable role in the allocation of resources in a free enterprise system."[52] This role is performed at least in part by stimulating competition:

> The ban on advertising serves to increase the difficulty of discovering the lowest cost seller of acceptable ability. As a result, to this extent attorneys are isolated from competition, and the incentive to price competitively is reduced . . . . It is entirely possible that advertising will serve to reduce, not advance, the cost of legal services to the consumer.[53]

Justice Powell's spirited separate opinion in *Bates* emphasized the "individualized" nature of legal services, and suggested that while advertising of such services might have benefited some consumers, presumably through lower prices, many would have inevitably been misled.[54] This individualization of services implied that lawyers would have found it difficult to establish and to effectively enforce a classic cartel.[55] Thus, for

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against price advertising, like a collusive agreement among competitors to refrain from such advertising, will tend to mitigate competition and maintain prices at a higher level than would prevail in a completely free market." Liquormart, Inc. v. Rhode Island, 517 U.S. 484 (1996) (footnotes omitted). The state of Rhode Island, in support of its ban on price advertising, argued that such advertising, if permitted, would raise prices to lower consumption. *Id.* at 530 (O'Connor, J., concurring).

50. 433 U.S. 350 (1977).

51. The Court held that while commercial speech "may often carry information of import to significant issues of the day," and is thus deserving of protection similar to that of non-commercial speech, it is likely to have an even stronger impact on listeners. "The listener's interest is substantial: the consumer's concern for the free flow of commercial speech often may be far keener than his concern for urgent political dialogue." *Id*. at 364.

52. *Id.*

53. *Id.* at 377.

54. *Id.* at 391 (Powell & Stewart, JJ., concurring in part and dissenting in part).

> It has long been thought that price advertising of legal services inevitably will be misleading because such services are individualized with respect to content and quality and because the lay consumer of legal services usually does not know in advance the precise nature and scope of the services he requires.

Id.

55. For example, lawyers could agree to fix their hourly fee, but a lawyer inclined to defect from the cartel could charge fewer hours for a particular matter. Still, there could be certain areas of legal practice where a classic cartel might be effective, such as agreed-upon minimum charges for routine divorce cases, or agreed-upon percentages to charge for administering an estate. These standardized matters were the focus of the advertising in *Bates*,

professional services we can reasonably conclude that the Court justified its decision to limit restrictions on price advertising in part because of advertising's impact on prices that are set non-cooperatively. Following *Bates*, a simple agreement to ban price advertising, even among professionals such as physicians,[56] optometrists,[57] pharmacists,[58] or accountants,[59] is clearly illegal.

An agreement not to post gasoline price signs was held to be a per se violation of section 1 of the Sherman Act, even though the agreement did not extend to fixing the prices themselves—the proponents of the ban admitted that it was intended to stabilize prices, reducing the incidence of "price wars."[60] But for products less homogeneous than either liquor or gasoline, the illegality of agreements to control non-price advertising has been, and remains, somewhat more problematic. This illegality does not always derive from the Sherman Act—the advertising limitations imposed by state governments in *Bates* and *Virginia State Board of Pharmacy* were condemned as First Amendment violations of commercial free speech. But the language used to justify protection of such speech was, at least in part, economic. There could be occasions when a cartel's ban of advertising could help stabilize a cartel by making discounting difficult, though, as noted above, advertising would generally help cartels through exposing prices to

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but had lawyers wished to enforce a cartel, they would have been better served by altering the rules to permit advertising. Note, however, that there have been attempts to fix prices for legal services. *See, e.g.*, Goldfarb v. Va. State Bar, 421 U.S. 773 (1975).

56. *See* Am. Med. Ass'n, 94 F.T.C. 701 (1979), *aff'd*, 638 F.2d 443 (2d Cir. 1980), *aff'd*, 455 U.S. 676 (1982) (order modified 99 F.T.C. 440 (1982), 100 F.T.C. 572 (1982) and 114 F.T.C. 575 (1991)).

57. *See* Mass. Bd. of Registration in Optometry, 110 F.T.C. 549 (1988). For a cogent and pathbreaking analysis of the advertising and other restraints at issue, see John E. Kwoka, Jr., *Advertising and the Price and Quality of Optometric Services*, 74 AM. ECON. REV. 211 (1984), and Ronald S. Bond et al., *Self-Regulation in Optometry: The Impact on Price and Quality*, 7 LAW & HUM. BEHAV. 219 (1983).

58. *See* Va. State Bd. of Pharm. v. Va. Citizens Consumer Council, Inc., 425 U.S. 748 (1976). Since the pharmacists dispensed standardized products, their case may have been more akin to advertising restrictions for gasoline and liquor than to other professional services. *Id*. at 773 n.25.

59. *See* Am. Inst. of Certified Pub. Accountants, 113 F.T.C. 698 (1990).

60. United States v. Gasoline Retailers Ass'n, 285 F.2d 688, 691 (7th Cir. 1961). While retail gasoline prices are susceptible to price fixing such price fixing is facilitated when cartel members can readily observe the prices set by competitors. *See, e.g.*, United States v. Hayter Oil, 51 F.3d 1265 (6th Cir. 1995); Coleman v. Cannon Oil, 849 F. Supp. 1458 (M.D. Ala. 1993). Transparent pricing means that any attempt to cheat on the cartel agreement can be uncovered quickly and punished effectively. The prospect of few benefits and substantial costs from cheating will tend to stabilize the cartel. A ban on price advertising, by reducing the transparency of prices, is much more likely to raise prices determined non-cooperatively than it is to facilitate classic collusion.

inspection. The difference in economic effects from an agreement to fix prices shows that advertising restrictions do not belong under the heading of classic collusion.

b. California Dental Association

The Supreme Court returned recently to the competitive effects of advertising. The occasion was a Federal Trade Commission challenge to a series of rules issued by the California Dental Association (CDA) that allegedly restricted its members' price and quality advertising.[61] The CDA, which included about three-quarters of dentists practicing in California, issued a Code of Ethics that purported to allow dentists to engage in truthful advertising, and only to prohibit advertising that was "false or misleading in any material respect;"[62] the Code condemned advertising as false or misleading unless it contained a large amount of specified information.[63] The issue before the Court, however, was the manner in which the CDA implemented this provision—through advisory opinions, guidelines, enforcement policies, and reviews of membership applications. The FTC held that the manner in which the CDA implemented its Code of Ethics effectively prevented the advertising of pricing, discount and quality information, and thereby harmed competition between dentists.[64]

The Commission treated the CDA's restriction against discount advertising as per se illegal and, additionally, condemned the rules under the abbreviated or "quick look" approach. On review, the Court of Appeals for the Ninth Circuit agreed that the Code was a "naked" restraint on price competition, and therefore deserving of condemnation under the "quick look" approach, though per se illegality was not deemed appropriate. The Supreme

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61. Cal. Dental Ass'n v. FTC, 526 U.S. 756 (1999).

62. *Id.* at 760.

63. *Id.* at 761-62 n.2. As Justice Breyer noted in his opinion, joined by three other Justices who concurred in part and dissented in part from the majority opinion, the Commission had found evidence that the CDA had denied membership to dentists wishing to advertise:

> "reasonable fees quoted in advance", "major savings", or "making teeth cleaning . . . 'inexpensive.'" [The FTC] referred to testimony that "across-the-board discount advertising in literal compliance with the requirements 'would probably take two pages in the telephone book' and '[n]obody is going to really advertise in that fashion.'" And it pointed to many instances in which the Dental Association suppressed such advertising claims as "we guarantee all dental work for 1 year," "latest in cosmetic dentistry," and "gentle dentistry in a caring environment."

Id. at 783-84 (Breyer, J., concurring in part and dissenting in part) (citations omited).

64. *Id.* at 762-63.

Court, however, held that it was not "intuitively obvious" that the restraints in question were anticompetitive, and hence deserved to be examined under the rule of reason approach. The Court remanded the case with instructions to analyze whether the CDA's asserted justifications for the Code were valid and whether the restraints had the effect of harming competition.[65]

Upon reconsideration, the Ninth Circuit completely reversed course. It "closely examined the record under the rule of reason" and "concluded that the Federal Trade Commission failed to prove that the restrictions were anticompetitive."[66]

The market for dental services is surely one in which it is difficult for "customers or potential competitors to get and verify information about the price and availability of services . . .";[67] advertising can provide such information. The opinions in *California Dental Ass'n* are remarkable both for the great gulf between the majority's attitude toward advertising and that of Breyer's dissent, as well as for the striking changes in attitudes toward advertising that each of the opinions reflect.

In reading the opinions, it is important to distinguish between advertising of prices and advertising of product characteristics, such as the quality of services offered. Price advertising, including the advertising of discounts, provides customers with information about a search characteristic—one that they can verify before acquiring the product in question. The majority was deeply suspicious of such advertising, arguing, in essence, that a little knowledge could be a dangerous thing. The CDA rules barred across-the-board discounts. The Court accepted that such discounts, if permitted, could have constituted "misleading or irrelevant advertising."[68] To the Court, the potential consequences of misleading advertising included the possibility that "'dishonest dealings tend to drive honest dealings out of the market.'"[69] The result could have been, in the Court's view, one in which across-the-board discount advertising drove more accurate advertising out of the market.

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65. Justice Breyer and the other three Justices dissented on this issue, holding that a "quick look" was enough to condemn the restraints at issue. The Court's response was that the look needed to be "lingering," though apparently it was unlikely to be necessary to linger long. The Court found the eight-page court of appeals decision to be inadequate, but, by comparison, deemed Justice Breyer's fourteen-page treatment both "lingering" and "painstaking." *Id*. at 779.

66 Calif. Dental Ass'n v. Fed. Trade Comm'n, 224 F.3d 942, 943 (9th Cir. 2000) (hereinafter "*Cal. Dental Ass'n II*").

67. *Cal. Dental Ass'n*, 526 U.S. at 772.

68. *Id.* at 773.

69. *Id.* at 775 (quoting George A. Akerlof, *The Market for "Lemons": Quality Uncertainty and the Market Mechanism*, 84 Q.J. ECON. 488, 495 (1970)).

While it is surely true that advertising across-the-board discounts could be misleading, especially in an information-poor environment,[70] the Court's skepticism about such information represents a substantial change in the legal treatment of price-related advertising. Advertising of discounts and other price terms has long been treated nearly on a par with straightforward price advertising. The FTC felt comfortable enough with its treatment of advertised price discounts to introduce its "quick look" approach in *Massachusetts Board of Registration in Optometry ("Mass. Board")*,[71] a case that stressed a ban on discounts.

If the Court's opinion in *California Dental* represented a sharp turn away from the position that advertising of price terms would necessarily lower prices in a non-cooperative equilibrium setting and thereby benefit consumers, Justice Breyer's dissent was an equally bold move in the other direction, endorsing the importance for competition not only of price-related advertising, but also that for quality. Justice Breyer's treatment of price-related advertising is focused on the unilateral decisions of suppliers:

> An agreement not to advertise that a fee is reasonable, that service is inexpensive, or that a customer will receive a discount makes it more difficult for a dentist to inform customers that he charges a lower price. If the customer does not know about a lower price, he will find it more difficult to buy lower price service. That fact, in turn, makes it less likely that a dentist will obtain more customers by offering lower prices. And that likelihood means that dentists will prove less likely to offer lower prices.[72]

This much he regards as "obvious." When he turns to advertising of service quality, his arguments are not altered much: "I do not believe it possible to deny the anticompetitive tendencies [of service quality advertising restrictions that] I have mentioned."[73] What are these tendencies? Suppression of quality advertising will reduce the amount of quality provided:

> [S]ome parents may . . . want to know that a particular dentist makes a point of "gentle care." Others may want to know about 1-

70. Indeed, even if the product in question were far more standardized than a professional service, opportunities for deception would remain. A price discount is clearly meaningless without knowledge of the base to which the discount is applied: a 20% discount from a price that is 25% above the price charged by rival suppliers has no effect whatsoever.

71. *Mass. Bd. of Registration in Optometry*, 110 F.T.C. at 606.

72. *Cal. Dental Ass'n*, 526 U.S. at 784 (Breyer, J., concurring in part and dissenting in part).

73. *Id.* at 786.

> year dental work guarantees. To restrict that kind of service quality advertisement is to restrict competition over the quality of service itself, for, unless consumers know, they may not purchase, and dentists may not compete to supply that which will make little difference to the demand for their services.[74]

Justice Breyer's encomiums for quality advertising are interesting in good part because of what they say about how attitudes toward advertising have changed. The assertions themselves are unobjectionable—indeed, how can a dentist compete on a quality dimension if customers cannot be readily informed about the level of quality offered? Yet it is also true that the motivation of California dentists for promising "gentle care" or the "latest in cosmetic dentistry" need not be limited to increasing output. These are classic product differentiation claims. The dentist that succeeds in convincing consumers that she has a special ability to provide a radiant smile is hardly different from the toothpaste manufacturer promising whiter teeth. If successful, such advertising will differentiate suppliers in either case, and, in consequence, will result in higher prices resulting directly from softened competitive pressures on the prices of individual dentists. This result can be obtained whether or not the advertised claims of improved quality can be verified, as long as customers credit them and, of course, if customers dismissed the claims, they would cease to be made.

Note, however, that the quality claims addressed by Justice Breyer were the subject of a CDA ban.[75] If the claims merely increased product differentiation and thereby reduced competition among dentists, the CDA would not have found it in its economic interest to impose the restrictions. That is, we conclude from the existence of an agreement among rivals that whatever quantity or differentiation-induced price increases the advertising may have permitted were expected by the CDA to be more than offset by the cost of the services promised and the cost of the advertisements themselves. It is the existence of the agreement to suppress competition, rather than the inherent desirability of the advertising itself that raises, or should raise, antitrust objections.

The Ninth Circuit's decision on remand adopted the skepticism of the Supreme Court's majority with a vengeance. The court held that "the case

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74. *Id.* at 785.

75. We agree with Justice Breyer and recognize that these claims concern the quality of services offered, respecting that the argument applies to claims intended to differentiate offerings as well as purely informational assertions. A claim of "gentle care" could refer to the willingness of the dentist to subject the patient to large doses of anesthetic at the first sign of tenderness—a practice that might increase risks in ways not necessarily consistent with higher quality care.

hinged on the actual economic consequences of the CDA's restrictions."[76] These economic consequences were not established in the record to the court's satisfaction.[77] Moreover, the court found the CDA's arguments on behalf of the potential procompetitive impact of advertising restrictions to be plausible. In markets in which information about product quality is difficult to verify, information provided through advertising by obviously self-interested providers may mislead poorly informed consumers. That is, added information is not necessarily a good thing, because that information may deceive. Does advertising lower prices? The evidence from the optometry market clearly indicates that it does.[78] But the court claimed that "the optometry market is of extremely limited value in helping us discern the economic effects of CDA's restrictions."[79] The FTC, in its quick look at the CDA restrictions had failed to provide "substantial evidence of the anticompetitive nature of the CDA's advertising restrictions."[80] Its argument was too reliant on extrapolation of results from markets for other professional services.

With the FTC's evidence discounted, the court viewed with favor the argument that the CDA restriction could benefit consumers. By restricting some forms of advertising, the CDA restrictions could, in principle, make the services provided by dentists more directly comparable, thereby actually lowering search costs. "[T]he restrictions create a kind of network externality by mandating a common language to be used by those CDA members who advertise discounts. As a result, a consumer's cost of searching for the less expensive service would be reduced."[81] Although no evidence is provided to support the applicability of this argument to the dental services market, after considering the argument, the court professes itself "persuaded that CDA's restrictions do mitigate some of the information asymmetries that exist in the market for dental services."[82]

The argument that one must carefully control information provision to ensure that consumers can compare effectively is one that should require substantial empirical support to be given substantial weight in deliberations over the effects of advertising restrictions. A recent study of the dental services market suggests that attempts to control quality through restrictive licensure have increased earnings of service providers and prices paid by

76. *Calif. Dental Ass'n II*, 224 F.3d at 597.

77. *See id.*

78. The court could have added Kwoka's work to the references it considered in support of the conclusion. *See* Kwoka, *supra* note 57.

79. *Calif. Dental Ass'n II*, 224 F.3d at 950.

80. *Id.* at 952.

81. *Id.*

82. *Id.* at 953.

consumers, with no impact on the quality of services provided.[83] A study of health information provided through advertising by self-interested product supplies indicates that such information has resulted in desirable changes in consumer behavior.[84] While the FTC may have provided insufficient support for its position that the CDA restrictions were anticompetititve, a closer look will likely reveal that they indeed had anticompetitive effects with little, if any benefit for product quality.

The Ninth Circuit opinion on remand in *California Dental Ass'n* makes it clear that agreements to change the rules of competition need not necessarily result in a diminution of competition or in the loss of consumer welfare.[85] The FTC was obviously too ready to conclude on the basis of little direct evidence that the CDA's restrictions on advertising were harmful. Nevertheless, our reading of the economics and evidence on advertising restrictions suggests that they are far more likely than not to harm competition.

c. Fastline Publications

The examples of bans on advertising have so far been restricted to associations of professionals. These examples have been chosen to demonstrate the distinction between classic collusion and agreements designed to affect prices chosen independently since, given the provider-specific nature of most professional services, effective price collusion in such markets is unlikely.[86] Motor vehicle dealers provide a different set of examples, because such dealers offer standardized merchandise. Yet, since prices in most motor vehicle retail markets are individually negotiated and cannot therefore be monitored effectively by rivals, pricing collusion is likely to be rare in these markets as well. Such markets also provide numerous examples of agreements intended to change the rules under which price competition takes place, thereby softening competition.

One recent example, *Fastline Publications*, concerned an agreement among farm equipment dealers to engage in a boycott to force a publisher of advertising circulars to remove price information from its mailing to farmers.[87] According to the FTC's staff analysis of the case, "[t]he price

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83. Morris M. Kleiner & Robert T. Kurdle, *Does Regulation Affect Economic Outcomes? The Case of Dentistry*, 43 J. OF LAW & ECON. 547 (2000).

84. Pauline M. Ippolito & Alan D. Mathios, *Information and Advertising: The Case of Fat Consumption in the United States*, AM. ECON. REV., Jan. 6-8, 1995, at 91-95.

85. We discuss examples of rules that enhance competition below in Part IV. *See infra*, text accompanying note 208.

86. *But see* Goldfarb v. Va. State Bar, 421 U.S. 773 (1975).

87. 1998 FTC LEXIS 55 (FTC May 11, 1998).

advertisements were, among other things, facilitating downward pressure on prices for new farm equipment."[88] Fastline's principal business consisted of distributing a series of picture buying guides for new and used farm equipment to farmers at no charge. These guides were funded by advertising fees paid by the dealers whose products appeared within. Fastline's promotional materials suggested that the prices included in its circulars increased the circulars' attraction to farmers, permitting them to shop at a lower cost than would otherwise have been possible.[89]

In 1991, several Kentucky farm equipment dealers complained individually to Fastline about dealer advertisements that included discount prices for new farm equipment. Acting through their dealer association, and backed by the threat of withholding their advertising, the Kentucky dealers obtained an agreement from Fastline not to accept advertisements that included prices for new equipment. The dealers did not object to, and indeed apparently welcomed, circulars that provided price and other information about used equipment and non-price information about new equipment. Such information, particularly that concerning the availability of new equipment, need not increase competition markedly, and could indeed have left consumers worse off than they would have been without the information.[90]

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88. *Id.*

89. Fastline offered testimonials from farmers, excerpts of which included: "I love looking for a good deal. The pictures are great!"; "I love the photos in Fastline. I like to shop and compare."; and "Not having Fastline is like going to an elevator and not having a directory." Fastline Publ'ns, *What Do Farmers Say About Fastline?*, *at* http://www.fastlinepublications.com/f_readertestimonials.asp (last visited Nov. 12, 2000).

90. Such advertising could have benefited dealers to the detriment of consumers. Consider a simple example of how information could actually harm consumers. Suppose the marginal cost of selling a farm implement is $10,000, but that farmers are willing to pay up to $13,000 for a unit of the implement in question. Suppose also that the implement comes in two varieties, red and green, that one-half of the farmers in the market prefer each type, and that the reservation price per unit is reduced by $500 for the non-preferred unit. That is, if I prefer green units, I am willing to pay $13,000 for a green unit and $12,500 for a red unit. Finally, suppose that farmers know that there are two implement dealers (one green and one red) in their community, but they do not know which type of implement each dealer offers. We suppose that each farmer chooses to visit a single dealer at random, but that the farmers do not shop after visiting one dealer. Also suppose that there is no effective advertising mechanism available.

Since the farmers do not shop, each dealer expects that on average one half of its customers will be willing to pay $13,000 and one half will be willing to pay $12,500. We will also assume that the farmers do not readily reveal their willingness to pay, so that dealers must charge all farmers the same price. That price, clearly, will be $12,500. Each of the farmers who is matched with his preferred color gets a surplus of $500, while the other farmers receive no surplus.

Now suppose that a third party begins to distribute an advertising circular, and the dealers are forced by competition to use it. Each places ads that indicate the color it offers.

The situation changes when prices are advertised. In practice, prospective farm equipment customers are apt to carry on at least some search, but would likely differ both in terms of search costs and in their interest in seeking better deals. Faced with informed customers, circulars in hand, dealers would be willing to cut prices below their consumers' willingness to pay, particularly if they could retain those customers without extending similar discounts to less well-informed customers. The result is price discrimination with competition for the well-informed, dragging prices down for those customers.[91]

The *Fastline* case illustrates that non-price advertising might not always be an adequate method of imparting necessary information to consumers. By contrast, price advertising makes it easier to reach customers who would not ordinarily visit a particular firm, and encourages discounts to attract those customers. However, as advertising increases, the fraction of the market receiving the discount offers grows. Eventually firms can experience erosion of their customer bases to such an extent that rivals offering selective discounts will need to respond with price cuts to the most lucrative of their customers. In this way, prices will be eroded even if the rivals did not collude over prices before the onset of advertising. Thus while individual dealers may wish to offer and to advertise discounts to otherwise committed (and high price) customers from rivals, the collective interest of dealers will be to suppress such advertising, thereby limiting discrimination. Still, dealers have

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Farmers who prefer green go to the green dealer, who now knows that all customers who walk in the door are willing to pay $13,000. Hence all customers will receive no surplus, even though the matching between customers and implements is improved. (We are assuming that the dealers can only charge a single price, since they cannot determine consumer willingness to pay on a case by case basis, and that they carry only one color of equipment.) The allocation of resources is better—each customer receives his preferred variant—but all surplus accrues to the dealers. Here information that induces customers to sort themselves benefits dealers and so is likely to be provided voluntarily by those dealers.

We have kept this example simple by ignoring a number of issues. Will both firms (or, for that matter, either firm) choose to advertise, when advertising by one, say green, tells red consumers to try the other? If prices are advertised, do consumers benefit? Advertising of prices and product characteristics clearly benefits customers compared to the $13,000 equilibrium that emerges from advertising of product characteristics alone. However, the simplifying assumptions we have made to understand advertising that directs customers to preferred characteristics also rule out a pure strategy equilibrium for prices. Assuming customers know enough to pick the dealers offering their preferred products, dealers will clearly benefit from, and consumers will be harmed by, an agreement not to advertise prices.

91. Price discrimination can also encourage dealers to compete for customers who do not favor that dealer's products. Referring to the example in the previous footnote, a red dealer is more likely to extend discounts to green customers if it can do so without passing the savings on to red customers.

sometimes moved beyond limitations on advertising to limit the ways in which intense competition occurs.

2. OTHER AGREEMENTS TO RAISE CONSUMERS' SEARCH COSTS

Advertising can serve either to insulate one firm from its rivals by differentiating its products or to bring rivals into closer proximity by providing information with which consumers can more easily comparison shop. As we have seen, firms will often wish to agree to limit advertising that has the latter effect. Their interest in such agreements will extend to attempts to increase the costs of comparative information to consumers, thereby preserving differentiation. We consider several such agreements here, each of which was designed to make it harder for consumers to shop multiple suppliers. The first case, *Detroit Auto Dealers Ass'n*,[92] involved an agreement to make it more difficult for consumers to shop. The next two, *Dillon Co.*[93] and *Santa Clara Motor Vehicle Dealers Ass'n*,[94] were agreements to prevent third parties from providing information to consumers. *ES Development, Inc. v. RWM Enterprises, Inc.*[95] involved an attempt by dealers to prevent the emergence of a form of retailing conducive to consumer shopping and price comparison. Finally, *National Society of Professional Engineers*[96] was an attempt by members of a profession to prevent consumers from shopping prior to investing substantial unrecoverable resources in dealing with a particular supplier.

a. Detroit Auto Dealers Association

In 1973, a number of Detroit-area automobile dealers, faced with the threat of a union organizing drive, agreed to close their dealerships on Saturdays and to otherwise restrict their hours of operation. This agreement resulted in a 1984 FTC complaint charging that members of the Detroit Auto Dealers Association (DADA) had thereby violated section 5 of the FTC

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92. 111 F.T.C. 417 (1989).

93. 102 F.T.C. 1299 (1983).

94. Santa Clara County Motor Car Dealers Association; Proposed Consent Agreement with Analysis to Aid Public Comment, 60 Fed. Reg. 39,959 (Fed. Trade Comm'n Aug. 4, 1995).

95. 939 F.2d 547 (8th Cir. 1991).

96 435 U.S. 679 (1978).

Act.[97] The Commission's Order required that DADA members refrain from discussing hours with one another, and that the dealers remain open for a minimum of sixty-four hours per week.[98]

This DADA agreement appears to have been intended to increase consumer search costs, thereby separating dealers more effectively from one another, and hence raising non-cooperative equilibrium prices. Here, even more so than in the *Fastline* case, it is apparent that the restriction on hours was not intended to further a collusive agreement. With individually negotiated prices set not only by each dealer, but separately for each customer, and with those negotiated prices likely to remain secret, the possibility of an effective cartel was small. The goal of the restrictions was to raise non-cooperative equilibrium prices that the dealers set individually by suppressing competition.

The dealers apparently viewed the hours restriction in exactly this way. The FTC case included letters from the dealers demonstrating that they "expected the hours restriction to benefit them by limiting comparison shopping."[99] This limitation arose from the raised cost of search and was expected to result directly in higher prices: "with fewer shopping hours, the public can devote less time to shopping, and consequently forcing down prices."[100]

Not all commentators agree that agreements to restrict hours such as that at issue in the DADA case are distinct from classic cartels. For example, in a section entitled *Avoidance of Unreal Distinctions*, Robert Bork argued as

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97. Detroit Auto Dealers Ass'n, 111 F.T.C. 417 (1989). The FTC entered into a consent agreement with a majority of the DADA members, those that did not have labor agreements. For a history of the case, see Fed. Trade Comm'n, *Remaining Dealers in Detroit Auto Dealers Case Agree to Settle*, *at* http://www.ftc.gov/opa/1997/9703/dada-97.htm (Mar. 14, 1997).

98. *Detroit Auto Dealers*, 111 F.T.C. at 513-14. Implementation of the Commission's Order entailed numerous complexities.

99. *In re* Detroit Auto Dealers Ass'n, 955 F.2d 457, 477 (6th Cir. 1992) (Ryan, J., concurring in part and dissenting in part); *see also* Ian Ayres, *Fair Driving: Gender and Race Discrimination In Retail Car Negotiations*, 104 HARV. L. REV. 817 (1991). Ayres provides the following example closely tracking our analysis:

> One dealer, interviewed informally, espoused a desire to close his showroom in the evening, if his competitors would follow suit. Although forcing consumers to purchase at inconvenient times would seem to reduce the demand for cars, the dealer felt that restricting showroom hours would also reduce the amount of search that buyers undertake. Thus, the dealer believed that although he might not get as many people in his showroom, he would have less competition for those who did arrive.

Id. at 848 n.90.

100. *See Detroit Auto Dealers Ass'n*, 955 F.2d at 477 (Ryan, J., concurring in part and dissenting in part).

follows:

> It is, presumably, more likely that a judge in the Brandeis tradition would uphold an agreement by automobile dealers to close on Sundays than an agreement by the same dealers to add $200 to the price of each car. Yet there is no difference between the cases. Both are limitations upon competition whose sole purpose is to increase the dealers' income by restricting output. The output in one case is the number of cars sold (which will decrease with the raised price); the output in the other case is the provision of convenience of shopping to consumers (which will decrease with the Sunday closing).[101]

We disagree. The extra $200 per car agreed upon by dealers in Bork's example of classic collusion flows directly into the pockets of the dealers.[102] The quality of the cars is unaltered, and no impact on demand (as opposed to quantity demanded) occurs. When hours are restricted, resulting in lessened "convenience of shopping," the direct benefit to dealers is a reduction in the cost of providing services. If the dealers' goal was merely to reduce output (defined in terms of hours of shopping), they could have as easily agreed to close on Wednesdays. In this case, however, the benefits of cost reduction would be difficult to retain. The association would face the problem of ensuring that competition would not force the price down, transferring any cost savings to consumers.[103] In the actual case, by contrast, the benefit to dealers of shorter hours required a reduction in the intensity of price competition. The DADA restriction did not fix prices, but instead reduced shopping convenience, thereby altering the way in which individual prices were negotiated. For all these reasons, this case belongs in a category distinct from classic "Type I" collusion.

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101. ROBERT H. BORK, THE ANTITRUST PARADOX 85 (1978).

102. This assumes that a traditional cartel among auto dealers would have been effective, an unlikely outcome for this market.

103. For a case that more closely fits the Bork argument, see *Tennessee v. Highland Mem'l Cemetery*, 489 F. Supp. 65 (E.D. Tenn. 1980). In that case, four Knoxville area cemeteries agreed not to perform burials on Sundays. The Court remarked that "[i]t is difficult to believe that concerns about competition did not play a key role in the agreement. The agreement, in purpose and effect, was an anticompetitive restraint of trade." *Id*. at 68. Such an agreement would reduce the costs of burials to cemetery owners but the corresponding reduction in the quality of services provided would not translate into more than a minor decline in demand, assuming that substitutes for burial are very imperfect. To the extent that consumers of burial services were required to choose burial days (Monday, as opposed to Sunday) that resulted in lowered attendance or lost work days, welfare would diminish.

b. Dillon Co.

Other cases involving attempts to raise consumer search costs do not even give rise to superficially plausible arguments that their purpose is to reduce selling costs. Consider *Dillon Co.*,[104] a case that involved concerted action to prevent price checking at grocery stores. TeleCable, a Springfield, Missouri cable television supplier, hired Vector Enterprises to collect price information on a sample of approximately eighty grocery products at five grocery store chains, including the largest chains in Springfield.[105] The cable station broadcast comparative grocery pricing information for approximately a year. The five grocery stores then agreed to act in concert to prevent Vector's collection efforts, and simultaneously implemented actions that effectively prevented Vector from engaging in comparative grocery price checking.[106] The groceries did not obtain any cost-saving benefits from their agreement—all of the costs of collecting and disseminating information were incurred by Vector and paid for by TeleCable.

When the agreement took hold, the cable system was unable to run comparative grocery pricing. It therefore terminated its contract with Vector. The FTC sued, charging that the retailers' collective action restrained grocery price competition.[107] In a Consent Order, the defendant agreed to stop interfering with Vector's price checking.[108] Since the only benefit of the agreement to the cartel was to impair consumer search so as to reduce competitive pressures on the groceries, the agreement fits clearly into our new category of collusive activity to manipulate the rules under which competition takes place.

c. Santa Clara Car Dealers

The Detroit Auto Dealers were interested in agreeing to control their own behavior in order to make shopping more costly, thereby providing each dealer with more insulation from competition. When an outsider provides shopping guidance to consumers, the results are similar—the dealers will

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104. 102 F.T.C. 1299 (1983).

105. Eighty products represents only a small fraction of the more than 10,000 stock-keeping units (individual items) carried by a modern supermarket.

106. *Id*. at 1300. The five stores implemented a variety of measures to prevent Vector from effectively checking prices. These included directly preventing Vector from entering to check prices, and requiring Vector to purchase the items in question, which would have cost Vector more than it received from the cable television station for its research. *Id*.

107. *Id.* at 1301.

108. *Id.* at 1302. The defendant also agreed to other remedies. *Id.* at 1303-06.

wish to suppress such information. The Santa Clara County Motor Car Dealers Association conducted a boycott of a newspaper that ran an article offering customers information on how to negotiate for new cars effectively. A local newspaper, the *San Jose Mercury News*, ran a feature article in their weekly automotive section titled, "A Car Buyer's Guide to Sanity."[109] The article explained to consumers how to read a factory invoice and other techniques they could use to better negotiate for new cars.

In response, the Association's members met and allegedly agreed to cancel approximately $1 million worth of advertising in the newspaper (auto advertising had been the newspaper's fourth largest source of revenue). The FTC asserted that the "boycott" or punishment occurred pursuant to an agreement and was anticompetitive because it "restrain[ed] competition among dealers and chill[ed] the publication of important consumer information."[110] Further, the boycott could have had the effect of inhibiting comparison-shopping and thus could have increased consumer search costs. In a Consent Order, the Association agreed not to participate in any future boycott of any media and to other remedial provisions as well.[111] As in our other motor vehicle cases, there was no suggestion that the dealers were colluding on prices. They instead wished to suppress competitive pressure to meet prices of rivals.

d. ES Development

ES Development, Inc. v. RWM Enterprises, Inc.[112] involved an attempt by car dealers to prevent the emergence of a car mall that would have provided "one-stop shopping" for car buyers. ES Development (ESD), a real estate development corporation, was attempting to open an automobile mall, the first of its kind in the St. Louis area.[113] The mall would have benefited consumers since they would no longer have had to travel from one manufacturer's dealers to those of another in order to comparison shop.[114] It

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109. *A Car Buyer's Guide to Sanity: Here's a Low-Price, Low-Stress Route to Getting the Most for Your Dollar*, SAN JOSE MERCURY NEWS, May 22, 1994.

110. Press Release, Fed. Trade Comm'n, *Santa Clara County Auto Dealers Association Settles Charges over Alleged Advertising Boycott*, FTC File No. 941 0107 (Aug. 1, 1995), *at* http://www.ftc.gov/opa/1995/9508/scautoad.htm (Aug. 1, 1995).

111. Santa Clara County Motor Car Dealers Association; Proposed Consent Agreement With Analysis to Aid Public Comment, 60 Fed. Reg. 39,959 (Fed. Trade Comm'n Aug. 4, 1995).

112. 939 F.2d 547 (8th Cir. 1991).

113. *Id.* at 550.

114. Presumably the mall would only contain one franchise for each manufacturers' product. Consumers would still have to go to a number of locations to engage in intrabrand shopping. However, the mall would be a great benefit for consumers unsure of what type of

was also hoped that participating dealers would benefit since they could have shared service facilities and advertising expenses,[115] and secured a large number of customers.

The potential of such a mall emerging posed a substantial problem for existing dealers. Apart from operational efficiencies accruing to dealers from their close proximity to one another, such a mall, like a shopping center or district, would attract consumers both because of the convenience of comparing alternative automotive offerings and because the competition among dealers will result in lower prices. Each individual dealer might have wished to maintain separation from rivals, but were the mall to become viable, dealers would have preferred to follow the demand.[116] ESD attempted to secure tenants for its mall by contacting a number of automobile manufacturers, several of which expressed initial interest in the project.[117] The manufacturers' interests would have been served by efficient, competitive distribution that the mall could provide—product differentiation could be handled through advertising. ESD separately contacted local dealerships about the possibility of relocating to the mall, and several also expressed initial interest.[118] Some area dealers, however, developed a concern over the proposed mall's "one stop shopping" concept.[119] These concerns led representatives of nine area car dealerships, all of which were located within ten miles of the proposed mall, to meet.[120] Each of the nine

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vehicle to purchase.

115. *Id.*

116. Operators of malls and trade shows, hoping to increase their attractiveness to potential exhibitors, may try to suppress some of the price competition that would emerge without their intervention. *See, e.g.,* Denny's Marina, Inc. v. Renfro Prods., Inc., 8 F.3d 1217 (7th Cir. 1993). Dealers participating in a boat show complained to the organizer that Denny's was a price cutter who would encourage consumers to shop elsewhere and then come to the Denny's display, where Denny's would meet or beat the best price obtained elsewhere. *Id*. at 1220. The resulting competition made the boat show much less attractive for the other dealers. The show's organizer, responding to complaints, refused to permit Denny's to renew its contract to participate in the show. *Id*. Given that the existence of an agreement between the show's organizer and the remaining boat dealers was granted for purposes of summary judgment, the court of appeals held that an agreement to keep Denny's out in order to reduce price competition was a per se violation of section 1 of the Sherman Act. *Id*. at 1222. While the result was doubtful (the show was one of many outlets for boats in Central Indiana), the agreement was clearly one intended to alter the terms of price competition, rather than one to fix prices.

117. *ES Dev.*, 939 F.2d at 550.

118. *Id*. at 551.

119. *Id.*

120. There were eight representatives in attendance at the meeting, but one represented two dealerships. At least one other dealership owner attended, but left after learning that the group intended to act in concert to oppose the mall. *Id.* at 551 n.3.

dealerships operated under franchise agreements that gave it certain rights to object if the manufacturer attempted to grant another dealership within its market area. If the dealers exercised their procedural rights to object they could delay their manufacturers' decisions to award new franchisees by several months or even longer.[121]

The dealers attending the meeting agreed that each would exercise its contractual rights of protest against the award of new dealerships.[122] They formed a group (the Dealers Alliance) and devised a form protest letter that each could send to its respective manufacturer.[123] "Most, if not all," of the dealers sent substantially identical form letters to their respective automobile manufacturers.[124] These manufacturers thereafter terminated negotiations with ESD, often citing the form letters and the dealers' threats of litigation as the reason.[125]

The Court of Appeals for the Eighth Circuit held that the actions of the Dealers Alliance were a violation of section 1 of the Sherman Act. The court found that the agreement went "well beyond" the legitimate individual interests of the dealers in protecting their franchise against the establishment of another in close proximity. Rather, their concern was with the very existence of the mall, with its "one-stop shopping" concept.[126] While it would have been legal for each dealer to assert its rights individually to protest the mall, the actions became illegal "when incorporated into a conspiracy to restrain trade."[127] Although no individual dealer's actions could have prevented the formation of the car mall, their collective action was found to have had that power.[128]

Any dealer seriously considering whether to join the mall[129] would have had a complex decision to make because after it joined it would be competing

121. *Id.* at 551.

122. *Id*. The Dealers Alliance also drafted a statement of purpose that read, in part: "The purpose of the Dealers Alliance is to explore and advance areas of common and individual dealer concern with respect to [the new] Auto Mall." *Id.*

123. *Id.* at 552.

124. *Id.*

125. *Id.* at 554.

126. *Id.*

127. *Id.* at 555 (citation omitted).

128. *Id.* Without market power the boycott could not have had an anticompetitive effect. Our analysis assumes that the boycotting dealers had market power.

129. The ESD mall would have competed with any area dealer that did not join. The collective decision of the Dealers Alliance to boycott the formation of the mall made it much less likely that it would ever be formed. Therefore, the boycott had in part "raising rivals' costs" attributes—one significant effect of the boycott was to prevent the emergence of a new, lower cost, more efficient method of competition, in effect to infinitely raise the costs of prospective rivals.

under markedly new circumstances. If a dealer joined the mall it would have faced the prospect of reduced profit margins since its customers could have engaged in comparative shopping more easily. The very existence of the mall concept therefore changed the conditions of competition in a way that might well have harmed the dealer.[130]

On the other hand, suppose that a particular dealer declined to join the mall, yet the mall nevertheless came into existence. The mall could significantly hurt the non-participating dealers since it was located in the same area and offered the "one-stop shopping" concept and other potential efficiencies.

A boycott solved the dealers' quandary. A car mall requires a minimum number of tenants to be viable.[131] The boycott could significantly decrease the probability that the mall would ever be formed since it would be likely to prevent the mall from reaching minimum viable scale. A boycott could prevent the risks that the new mall would bring to the old competitive equilibrium. It prevented a significant change in the nature of the competition that characterized the industry.

e. National Society of Professional Engineers

The Supreme Court considered a system of solicitation restraints in *National Society of Professional Engineers v. United States*.[132] Before a customer selected an engineer, the customer often had to spend a considerable amount of time working with that engineer until both parties were satisfied that the engineer understood the precise needs of that customer. Yet, the Society's canons of ethics prevented engineers from engaging in competitive bidding[133] and from negotiating or even discussing "prices with potential customers until after negotiations [had] resulted in the initial selection of an engineer."[134] After the engineer had quoted prices to the customer, the customer was free to negotiate with that engineer[135] or to reject that engineer's proposal and start over with another engineer.[136] However, this

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130. On the other hand, the mall concept might have attracted significantly more customers and could have enabled the dealer to save advertising and service costs. Whether joining made sense for a particular dealer also depended upon the rental terms that ESD was asking for, as well as that dealer's belief as to whether it would, on average, gain or lose from more vigorous competition with other dealers.

131. *Id.* at 554 n.4.

132. 435 U.S. 679 (1978).

133. *Id.* at 681.

134. *Id.* at 692.

135. *Id.* at 693 n.19.

136. *Id.* at 684.

often meant a considerable delay and expenditure of time on the part of the customer.

The Court held that the ethical canon "operate[d] as an absolute ban on competitive bidding, applying with equal force to both complicated and simple projects and to both inexperienced and sophisticated customers . . . and substantially deprive[d] the customer of 'the ability to utilize and compare prices in selecting engineering services.'"[137] The Court rejected defendants' arguments that the restrictions were needed to guard the public safety.[138] The Court also observed that the canon had effectively transformed potential price negotiations between a buyer and many potential sellers into a bilateral negotiation between a buyer and one seller.[139] There was no claim that the Society "tried to fix specific fees, or even a specific method of calculating fees,"[140] nor did the rules at issue transform a competitive market into one where the engineer was in a monopoly position. After all, customers could, at the very end of the process, opt to start the process over with a new engineer. But starting over would have delayed the project and likely would have caused the customer to incur additional search costs until a satisfactory engineer could be found.[141] So the process did provide the engineer with the ability to take advantage of these transaction costs and thereby increase their fees.

B. Other Attempts to Shape Competition

Markets for professional services have certainly generated a large number of examples of agreements to shape the rules under which competition takes place, both by suppressing advertising that facilitates comparison of competitors and by increasing the difficulty that consumers face in obtaining information for themselves. In this section, another such example of an attempt to deny information is presented, *Indiana Federation*

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137 *Id.* at 692-93 (citations to lower court opinion omitted). This assumes that the Society had market power, an issue the Court never fully examined.

138. *Id.* at 693-94.

139. *Id.* at 693 n.19.

140. *Id.* at 682.

141. If the negotiations broke down and the customer chose not to use a particular engineer, that engineer also would have been harmed since he would have lost the opportunity cost of time spent with that customer. But since the engineers adopted the canon, presumably this breakdown in negotiations did not happen too often, or the cost to the engineer was less than the gains from partially locking the customers into using their first engineer. Even if the customer started over with a new engineer, there would be a risk that the second engineer would not offer significantly lower prices. In addition, delay to the project would harm the customer but not the engineer, so the costs of a breakdown in negotiations were unequal. These possibilities could help the first engineer's negotiation position vis-à-vis her customers.

of Dentists, where the consumer's agent—an insurance company—was denied diagnostic information. The section then turns to cases in which professionals have attempted to prevent competition from certain forms of business organizations.

1. *INDIANA FEDERATION OF DENTISTS*

Federal Trade Commission v. Indiana Federation of Dentists[142] involved a collective decision by an association of dentists to refuse to provide x-rays and other material to insurance companies. Dental insurance companies required that participating dentists attach a copy of the patient's x-rays to reimbursement requests that were submitted to the insurance companies.[143] The insurance companies justified this requirement as necessary to prevent needless or fraudulent dental work. They submitted these x-rays to their own dentists to determine whether the treatment recommended by the patient's dentist was warranted.[144] A group of Indiana dentists, however, formed an organization called the Indiana Federation of Dentists, which decided that member dentists would no longer comply with the insurance companies' requests.[145]

The Commission charged that this collective action was an unreasonable restraint of trade:

> [A]bsent such a restraint, competition among dentists for patients would have tended to lead dentists to compete with respect to their policies in dealing with patients' insurers; and that in those areas where the Federation's membership was strong, the Federation's policy had had the actual effect of eliminating such competition among dentists and preventing insurers from obtaining access to x rays [sic] in the desired manner.[146]

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142. 476 U.S. 447 (1986).

143. *Id.* at 449.

144. *Id.*

145. Another group, the Indiana Dental Association, initially refused to supply the requested x-rays. Under a consent agreement with the FTC, however, they abandoned the practice. *Id.* at 449-51. The Indiana Federation of Dentists consisted of a small group of dentists that refused to accept this Consent Order. This small group was, however, concentrated in three specific communities where they appeared to have market power. For example, the Federation enlisted nearly 100% of the dental specialists one town. *Id.* at 451.

146. *Id.* at 452.

The Federation argued that the agreement was "merely an ethical and moral policy designed to enhance the welfare of dental patients"[147] and that the provision of x-rays might lead the insurers to make inaccurate care determinations.[148] It also argued that insurance companies were free to visit dentists' offices and examine the records there.[149] The Court of Appeals vacated the Commission's Order,[150] but the Supreme Court found that the agreement forced insurance companies "to choose between acquiring that information in a more costly manner or forgoing it altogether. To this extent, at least, competition among dentists with respect to cooperation with the requests of insurers was restrained."[151] The Court rejected the Federation's defenses and held that the agreement violated section 1 of the Sherman Act.[152]

This case is similar to others, such as *National Society of Professional Engineers*, where the collusion raised consumer's search costs. Here, however, the effect of raising the cost of information was to increase the quantity of dental services demanded. As in our other examples, there is no suggestion that the dentists charged agreed-upon prices. The combined refusal to provide x-rays meant that the dentists' competition was softened or altered, not that all competition among them was suppressed, placing this case firmly in our category of Type III cartels.[153]

Note that the Indiana Federation of Dentists agreed to restrictions for the purpose of affecting competition among themselves, as opposed to intending to control competition from outsiders. This distinction is the distinguishing factor that differentiates Type III collusion from Type II collusion. In a number of other cases, actions that affect the parties to an agreement implementing those actions also affect entry or expansion of firms outside of the agreement, as we shall see in the cases that follow, as well as those discussed in Part III below.

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147. *Id.* at 453.
148. *Id.* at 452.
149. *Id.* at 456.
150. *Id.* at 453.
151. *Id.* at 457.
152. *Id.* at 465-66.
153. A second effect of the agreement in *Indiana Federation of Dentists* was to increase the ability of dentists to price discriminate. An insured patient is likely to be willing to pay more for enhanced dental services than an uninsured patient is. In a fee-for-service setting, price discrimination by dentists would lead to the insured paying more for dental care, in part through the provision of additional services that the patient would chose not to purchase but for the insurance.

2. AFFILIATION CASES

Providers of professional services can do so independently or under the aegis of a branded retailer or other corporate entity. That is, a service provider may be affiliated with or employed by a company that delivers the service in conjunction with complementary goods or services. Such combinations have not always been welcomed by service providers, who have on occasion have attempted to keep service provision independent.

Agreements to restrict affiliation are common for optometrists. In *Massachusetts Board of Registration in Optometry*[154] *("Mass. Board"),* the FTC challenged restrictions banning truthful advertising by optometrists and the advertising of affiliations between optometrists and optical retailers. These restrictions prevented optometrists from permitting optical establishments to advertise truthfully optometrists' "names or the availability of their services" (i.e., that the optician has available, or is affiliated with, an optometrist).[155] Optometrists were also prevented from advertising that they offered discounts from their normal fees.[156]

The Commission found evidence that these restrictions had deprived consumers of valuable pricing information and made it significantly more difficult for consumers to find out when optometrists were located adjacent to opticians or to engage in "one-stop shopping" if they so desired. The restrictions appear to have resulted in significantly higher prices for optometric services.[157] For these reasons the restrictions are another good example of Type III collusion.[158]

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154. Mass. Bd. of Registration in Optometry, 110 F.T.C. 549 (1988). *See also* Kwoka, *supra*, note 57; Bond et al., *supra*, note 57.

155. *Id.* at 551.

156. *Id.*

157. *Id.* at 552. The Commission found, for example, that optometrists affiliated with one national chain charged approximately twice as much in states where affiliation advertising was permitted. *Id.* at 563. The Commission also found that "some consumers have delayed or forgone needed optometric services, and some customers have bought optometric services that are less desirable to them than the services they would have purchased in the absence of the . . . conspiracy." *Id.* at 552-53.

158. Restrictions on corporate practices were virtually the entire focus of an earlier FTC action against an optometric association. In *Michigan Optometric*, the FTC ordered that the Association stop "[p]rohibiting, restricting, or restraining any optometrist from entering into or affiliating with a corporate practice, through any means." Michigan Optometric Association; Proposed Consent Agreement With Analysis To Aid Public Comment, 50 Fed. Reg. 31387, 31388 (Aug. 2, 1985). While the FTC Order did contain a prohibition against "[r]estricting, regulating, prohibiting, impending, declaring unethical, interfering with, or advising against the advertising, publication, or dissemination of information about optometric services," the focus of the opinion was clearly on attempts to preserve the independence of optometrists. *Id.* The record of this case is too sparse to determine exactly

3. AGREEMENTS NOT TO SOLICIT CUSTOMERS OF RIVALS

Agreements to restrict advertising inhibit firms from apprising rivals' customers of their offerings. On some occasions, customers are more readily contacted directly. Not surprisingly, these sorts of contacts have also been the target of restrictive agreements. We mention several such restrictions in passing, noting that if perfected they would resemble market division and would thus fall into our Type I category. However, in many such cases, firms compete for customers in advance of the customer's initial choice of a supplier. Price fixing is not suspected at the initial stage. Since these cases often treat approaches to the customers as a violation of an ethical code, it is not surprising to find these sorts of restrictions linked to advertising bans.

One such example is provided by the Community Associations Institute, a national trade association that included condominium managers and condominium owners. The Institute promulgated and employed a code of ethics to prevent members from soliciting other members' clients.[159] The FTC alleged that this provision unlawfully restrained competition between Association members and that it injured consumers, and issued a Consent Order prohibiting the Institute from interfering with the truthful solicitation or advertising efforts of its members.[160] The Order prevented the Institute from interfering with a wide range of solicitation practices, including mailings to prospective clients, phone calls designed to attract clients, and the offering of free services as marketing promotions.[161] Although these restrictions may have made it more difficult for new practitioners to enter the field, they appear to be directed primarily inward, to lessen competition

how the optometrists expected to profit from the restriction. It is possible that they wished to prevent non-optometrist assistants or opticians employed by the corporate practices from providing services that unaffiliated optometrists typically provided directly, thereby preventing substitution for the services of optometrists.

159. Community Ass'ns Institute, 117 F.T.C. 787, 788 (1994). The Code of Ethics contained a "professional courtesy" provision which stated that members could not interfere with the contractual relationships between condominium managers and their clients, and that members must give notice to other members when they have any significant contact with that member's clients. The defendant implemented this provision by declaring unethical "(1) . . . solicitations designed to attract an association away from its current manager; (2) quotations for management services given to a prospective client before being selected to bid; (3) and offering free, non-management services, such as insurance and landscaping, as marketing incentives." *Id.* at 788-89. The Code also prohibited "telephone or personal solicitation designed to attract current clients of another manager." *Id.*

160. *Id.* at 789, 791.

161. *Id.* at 791.

among those agreeing to the restrictions.[162]

C. Agreements Affecting Price Discrimination and Discounting

Customers often differ in the value they place upon a product, and differ as well in their ability or willingness to shop for or become adequately informed about particular products. Faced with such customer differences, sellers will want to charge more to those who are willing to pay the most, either due to high valuation or to limited information about selling terms available from rival suppliers. The result is price discrimination.[163]

We can therefore expect price discrimination to be endemic in markets with imperfectly informed customers, at least when firms selling in these markets are able to infer or to anticipate differences among such customers.[164] But price discrimination, particularly in markets inhabited by several competitors, is difficult to accomplish successfully. A firm wishing to sell

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162. Similar restrictions have been employed by certified public accountants and lawyers. *See, e.g.*, Am. Inst. of Certified Public Accountants, 113 F.T.C. 698 (1990) (accountants); Edenfield v. Fane, 507 U.S. 761, 777 (1993) (holding Florida law restricting solicitation of clients by accountants is unacceptable limitation on free speech) (lawyers). *But see* Fla. Bar v. Went For It, Inc., 515 U.S. 618, 635 (1995).

163. The examples in this section are all of third-degree price discrimination. Such discrimination occurs when firms set constant prices per unit for each class of customer. Consumers then choose the number of units to purchase. This differs from second-degree discrimination, where a firm offers a common pricing schedule to all consumers, who then sort themselves according to their choice of a price-output bundle from that schedule. For third-degree discrimination—apparently the most common form of discrimination—consumers who value the product highly pay the highest price. In contrast, second-degree discrimination typically results in a lower price per unit for customers with strong preferences for the product.

The welfare effects of these types of discrimination are also quite different from one another. Under third-degree discrimination, the high-demand customers pay high prices, resulting in substantial welfare losses, while the low-demand customers pay prices closer to marginal cost. In contrast, the bulk of the welfare loss in second-degree price discrimination results from the need to make bundles of goods offered to low-demand customers sufficiently unattractive so that high-demand customers do not pose as their low-demand counterparts. Note, however, that the surplus generated by the purchases of high-demand customers ends up in the pockets of suppliers, so that from the standpoint of consumer welfare, both low- and high-demand customers are poorly served by such discrimination.

When customers are presented with personalized offers, often in the form of take-it-or-leave it deals negotiated individually (as in the automobile market), the pricing may approximate first-degree price discrimination. Such discrimination results in economic efficiency, but transfers all surplus to suppliers. For a discussion of the economics of price discrimination, see Hal R. Varian, *Price Discrimination*, *in* HANDBOOK OF INDUSTRIAL ORGANIZATION 598 (Richard Schmalensee & Robert D. Willig eds., 1989).

164. For an analysis, see Thomas J. Holmes, *The Effects of Third-Degree Price Discrimination in Oligopoly*, 79 AM. ECON. REV. 244 (1989).

essentially the same product at different prices to various classes of customers must possess a degree of market power,[165] must be able to sort its customers (or to induce them to sort themselves) according to their willingness to pay for the product in question, and must stifle the arbitrage opportunities that differing prices present. A firm can attempt to implement price discrimination unilaterally, without coordinating its actions with those of rivals. In some instances, however, an agreement among rivals can either facilitate or suppress discrimination. We consider such agreements in this section.

We begin with a classic example of price discrimination. Prescription drugs are sold through retail pharmacies and through large health care providers including health maintenance organizations (HMOs), hospitals, other managed care providers, and mail-order pharmacies.[166] The retail pharmacies are sharply limited in determining which drugs to sell—they merely dispense the drugs that physicians prescribe.[167] In contrast, the HMOs and hospitals issue formularies, lists of recommended drugs, thereby affecting a physician's choice of drug. The formularies can be adjusted to include drugs for a therapeutic category based upon cost as well as effectiveness. The willingness of hospitals and HMOs to consider substitution of one pharmaceutical for another means that the elasticity of demand facing the maker of a particular drug is much higher for sales to these organizations compared to the elasticity of demand by retail pharmacies. The consequence of this difference in elasticity is that drug manufacturers will wish to sell at higher prices to the retail pharmacies. The prices for the two classes of customers will be similar only for drugs for which the HMOs and hospitals are unable to find suitable substitutes.[168]

The manufacturers of well-known prescription drugs have two of the three prerequisites for price discrimination. First, they possess market power based either upon patent protection or on their trademarks. Second, they can readily identify which of their consumers has the least elastic demand for their products. In order to be able to price discriminate, they need only to

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165. Judge Richard Posner puts this particularly clearly:

> Price discrimination implies market power, that is, the power to charge a price above cost (including in 'cost' a profit equal to the cost of equity capital) without losing so much business so fast to competitors that the price is unsustainable. The reason price discrimination implies market power is that assuming the lower of the discriminatory prices covers cost, the higher must exceed cost.

In re Brand Name Prescription Drugs Antitrust Litig., 186 F.3d 781, 783 (7th Cir. 1999).

166. *In re* Brand Name Prescription Drugs Antitrust Litig., 1999-1 Trade Cas. (CCH) ¶ 72,446, at 84,120 (N.D. Ill. Jan. 19, 1999).

167. The pharmacies have "no clout" with physicians. *In re Brand Name Prescription Drugs Antitrust Litig.*, 186 F.3d at 788.

168. This is the case with the anticoagulant Coumaden. *See In re* Brand Name Prescription Drugs Antitrust Litig., 123 F.3d 599, 615 (7th Cir. 1997).

ensure that the drugs sold at comparatively low prices to HMOs and hospitals do not make their way to the retail pharmacies from which the drug manufacturers demand higher prices.

The drug manufacturers will adopt the resulting discrimination unilaterally—there is no need for an agreement among themselves. Indeed, an agreement that sets prices would be very difficult to formulate and to enforce, given the differences among the products offered for sale. Nevertheless, there may have been a role for an agreement to facilitate discrimination. This is due to the fact that prescription drugs are typically not sold directly to the firms that ultimately dispense them to patients. Instead, manufacturers sell to an intermediate stage, drug wholesalers. The wholesalers could easily frustrate price discrimination by diverting low-price drugs intended for large health care providers to retail pharmacies. If this arbitrage occurred, the manufacturers could respond by selling drugs directly to the downstream customers, bypassing the wholesalers for low price drugs while retaining them for shipments to retail pharmacies. If the wholesalers were efficient drug distributors, this bypass would be inefficient. Wholesalers and manufacturers would each have an incentive to "fix" the wholesale distribution system to prevent arbitrage, avoiding wasteful duplication of the wholesaling function.

Such a system has indeed been designed. Wholesalers have implemented (and may have agreed to implement)[169] a "chargeback" system under which wholesalers would pay a common wholesale price sufficient to yield the manufacturer's desired price to retail pharmacies (including the wholesaler's margin). Lower prices to HMOs and the like were supported by rebates to the wholesalers paid by manufacturers when presented with evidence demonstrating that the drugs were sold to favored customers.[170] The wholesaler's interest in implementing the system was not so much to serve the manufacturers' interest as to avoid the loss of a substantial portion of the wholesaling business to direct distribution.

Assume for a moment that the wholesalers, but not the manufacturers, had, in fact, agreed to deny discounts to retail pharmacies by adopting the chargeback system.[171] This agreement would fit into the category of Type III

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169. "[T]he plaintiffs have presented evidence that the defendant manufacturers agreed among themselves, and also with the defendant wholesalers, to refuse discounts to pharmacies and to make the refusal stick by adopting the chargeback system in order to prevent arbitrage." *Id.* at 604.

170. This system is described in some detail in Judge Posner's opinion. *Id.* at 603.

171. It is by no means clear why the wholesalers would not have adopted such a system unilaterally, as a competitive device to attract manufacturer business. Any wholesaler who could commit credibly not to engage in arbitrage would thereby gain a competitive advantage over rival wholesalers.

agreements since it significantly affected non-cooperative market outcomes. But would it be illegal? In the view of Judge Posner, the answer is no.[172] But what if the manufacturers themselves had agreed to use the chargeback system to deny discounts to retail pharmacies? Why might such an agreement have been entered into? Judge Posner reasons as follows:

> One might have supposed that if the defendants were going to collude on price, they would go the whole hog and agree not to provide discounts to the hospitals and other customers favored by the discriminatory system. But the defendants' cartel—if that is what it is—may not be tight enough to prevent hospitals and other bulk purchasers with power to shift demand among different manufacturers' drugs from whipsawing the members of the cartel for discounts; or maybe these purchasers could shift demand to manufacturers that are not members of the cartel. If, for whatever reason, the elasticity of demand for a cartel's product differs among groups of purchasers, a single cartel price will not be profit-maximizing unless a discriminatory price scheme cannot be enforced at reasonable cost.[173]

The problem with this analysis is that it confuses two of the classes of

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172. He explains:

> [T]he system would be a per se violation of the Sherman Act . . . only if it were either a device for eliminating competition among wholesalers, which is not charged, or an instrument of a conspiracy among the manufacturers to eliminate or reduce competition among themselves. If, instead, each manufacturer was engaged in lawful, noncollusive price discrimination, it would no more be illegal per se for the wholesalers to devise collectively a system by which each manufacturer could engage in discriminatory pricing while selling through wholesalers than it would be illegal per se for them to agree on a standard form for inventorying drugs or a common method of inspecting drugs to make sure they are safe. Competitors are permitted by the antitrust laws (and certainly by the per se rule) to engage in cooperative behavior, under trade association auspices or otherwise, provided they don't reduce competition among themselves or help their suppliers or customers to reduce competition. If the wholesalers in this case were merely helping individual manufacturers maximize their profits by methods permitted by antitrust law, which include noncollusive price discrimination, there was no violation of antitrust law at either the manufacturer or the wholesaler level.

In re Brand Name, 186 F.3d at 784-85 (citations omitted).
We believe that this statement is too strong. An agreement among firms to harm a rival by raising that rival's costs can be condemned even if it neither reduces competition among the parties to the agreement nor helps suppliers or customers to reduce competition. *E.g.,* Fashion Originators' Guild of Am. v. FTC, 312 U.S. 457 (1941).

173. *In re Brand Name*, 123 F.3d at 604.

collusion we have identified. To see this, one needs to examine the economics of price discrimination in a bit more detail. We suppose that firms face two markets, termed "weak" and "strong,"[174] with the weak market being the one in which firms choose to set a lower price. Each firm sets its prices for each of the markets to maximize its profit, taking the prices of rivals as given. The resulting prices are dependent on the elasticity of demand in each of the markets, with the strong market being the one with the lowest demand elasticity.[175] If the firm is a monopolist, it simply sets a relatively high price for customers characterized by low industry or market demand elasticity. However, if its customers have rivals to which they can defect in the event of a price increase, then its loss of sales is a combination of the sales lost due to overall market demand elasticity and those lost to rival firms.

Firms will always wish to exploit differences in market demand elasticity among classes of customers. If a firm is a monopolist, it will choose to set higher prices in its less elastic market and will thereby raise profits. Accordingly, a mature cartel facing differing classes of customers will set not a single price, but a schedule of prices. The last sentence of Judge Posner's analysis is applicable to cartels, and is thus appropriate for Type I collusion, but the rest of the analysis is less clear. Firms facing two classes of customers, one of which will "whipsaw" for discounts, may well be better off by carving off that class of customers for separate treatment. The reason is that the price from which discounts are made is not constant. If the "whipsawing" (weak-market) customers are lumped with the remaining purchasers, and all are charged a uniform price, that uniform price is likely to be lower than the price charged to the strong market alone. The ability to divide customers into classes, only one of which may receive discounts, need not always raise profits, but often will, and hence firms may want to facilitate such discrimination.

The facilitation will likely center on attempts to prevent consumers from arbitraging price differences. Carving off price-sensitive consumers for competition permits higher prices for strong-market customers, but the resulting price differentials will tempt customers paying higher prices to try to qualify for discounts. Indeed, the formation of "buying groups" of retail pharmacies in pursuit of discounts was the proximate cause of the wholesalers' adoption of the chargeback system. From the standpoint of manufacturers, if it were profitable to separate strong- and weak-market customers, it must have been sensible to agree on just which customers

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174. JOAN ROBINSON, THE ECONOMICS OF IMPERFECT INFORMATION (1933). Our use of the terminology for markets occupied by more than one firm is ambiguous (for reasons that will become apparent), but it is used for purposes of presenting an intuitive discussion.

175. We follow the convention of interpreting demand elasticity as an absolute value.

belonged in each market. A manufacturer that incorrectly offered a discount to a strong-market customer would thereby raise the strong-market elasticity of demand for each of its rivals, thus lowering prices in the strong market and reducing profits for all. Conversely, a potential weak-market customer who was not offered discounts would also make the strong-market elasticities of demand for each of the manufacturers higher than they should be. Agreement to assign customers to one market or the other could be profitable, preventing misclassification (from the manufacturers' point of view). But given that the collusion entailed would not extend to an agreement over individual prices, such collusion, if it occurred, would not be Type I collusion, but would instead fall into the Type III category.

Ultimately, the district court in *Brand Name Prescription Drugs* found that no evidence of agreement had been provided by plaintiffs, effectively ending the case.[176] But it is nonetheless important to keep in mind that the agreement, had it existed, might have been designed not to facilitate a Type I cartel, but rather to shape competition among manufacturers. An agreement by wholesalers to install a chargeback system could hardly have served as the cat's paw of a Type I manufacturer cartel, but it could have shaped the environment in which manufacturers independently set prices and discounts to yield higher manufacturer profits, and thus the potential for Type III collusion.

Agreements governing price discrimination can also attempt to limit the size of discounts offered. Despite the fact that they have the opposite effect of the alleged agreement to facilitate pharmaceutical price discrimination, they are also Type III, and not Type I agreements—though they can easily be mistaken for the latter. Consider agreements among groceries to halt the practice of "double coupons," that is, crediting a customer's grocery bill for double the face value of manufacturer coupons.[177] An agreement to halt the practice of double coupons is not equivalent price fixing, because the base prices to which the coupon discounts are applied are not set collusively.[178] Indeed, under some circumstances, such an agreement could increase

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176. 1999-1 Trade Cas. (CCH) ¶ 72,446, at 84,162 (N.D. Ill. Jan. 19, 1999).

177. Connecticut *ex rel*. Lieberman v. The Stop & Shop Companies, Inc., 1989-2 Trade Cas. (CCH) ¶ 68,796 (D. Conn. July 19, 1988).

178. "The court is persuaded that . . . a conspiracy to discontinue double coupons is a form of price-fixing and therefore is a per se violation of the Sherman Act." United States v. The Stop & Shop Cos., 1985-2 Trade Cas. (CCH) ¶ 66,689, at 63,240 (D. Conn. Nov. 8, 1984). The issue here is whether the rivals setting the coupon policy compete over the base prices to which discounts apply. In cases where the base prices are determined exogenously, as, for example in real estate sales, firms that agreed to fix commissions as a given percentage of a base price have in fact engaged in price fixing.

welfare.[179]

Ordinarily however, the suppression of discounts is simply the suppression of competitive impulses. Double coupons, for instance, are a way for grocers to appeal to customers who have been identified as shoppers by their willingness to redeem manufacturer coupons. Many price discrimination schemes entail some costs to those who use them, but for double coupons, the costs of administering the scheme are borne by the manufacturer.[180] It is also unlikely that manufacturers providing coupons could effectively respond to an offer of double coupons by adjusting their own wholesale prices to the grocers in question. Hence the primary effect of double coupons is not to offer discounts for the purchase of particular items, but rather a discount on the grocery store's margin for customers who have demonstrated a willingness to shop. Discounts to customers based on their willingness to shop are clearly pro-competitive and pro-consumer.[181]

United States v. Brown University[182] involved another agreement to affect the way that competitors engaged in price discrimination. The agreement in question was reached by the "Ivy Overlap Group," which consisted of eight Ivy League schools plus MIT. Each school had decided on its own to engage in price discrimination by discounting tuition to poor students through grants of financial aid. The Ivy Overlap Group improved upon this unilateral price discrimination in two ways. The Group's members agreed on the discounts to be offered to needy students[183] and simultaneously agreed not to engage in price competition for especially talented prospective students.[184] Members shared financial information and attempted to derive a standardized methodology to ensure that students did not choose which school to attend on the basis of cost (i.e., the net amount that they and their family would have to pay).[185] The Ivy Overlap Group met to discuss each

179. For an interesting analysis of the incentive to limit coupons and of the welfare effects of such a limitation, see Ralph A. Winter, *Colluding on Relative Prices*, 28 RAND J. ECON. 359 (1997). *See also* text accompanying note 237 for a discussion of the welfare effects of double coupons.

180. In contrast to double coupons, discrimination in the form of trading stamps or provision of "free" services entails costs for the retailer.

181. Yongmin Chen, *Oligopoly Price Discrimination and Resale Price Maintenance*, 30 RAND J. ECON. 441 (1999).

182. 5 F.3d 658 (3d Cir. 1993).

183. *Id*. at 662. "The purpose of the Overlap agreement is to neutralize the effect of financial aid so that a student may choose among Ivy Group institutions for non-financial reasons." *Id*. at 662 n.2.

184. *Id*. at 663. Only differences of less than $500 were permitted.

185. The organization met each year to agree upon methodological issues that arose. For example, they had to agree upon what level of financial contributions they could expect from divorced parents, how much the student would be likely to earn from summer

student who had been admitted by more than one of the schools to ensure that the net cost to that student would be essentially identical no matter which member school she decided to attend.

The district court characterized the agreement as "price fixing" that eliminated price competition between the schools.[186] It condemned the practices under the "quick look" version of the rule of reason without considering any alleged social benefits of the agreement.[187] The court of appeals reversed the decision in light of a number of proffered arguments that the overall effect of the agreement actually was to enhance consumer choice.[188] It remanded the case to the district court with instructions to perform a full rule of reason analysis.[189] This analysis was to include a balancing of the schools' desire to provide financial aid to a large number of the most needy students, with the benefits of allowing the free market to bestow merit-based scholarships on the most gifted students who did not require financial assistance.[190] The case settled before this balancing could be performed.[191]

This case involved a complex agreement that involved both Type I and Type III collusion between the schools. Insofar as the Ivy Overlap Group agreed upon the net tuition price that the poorer students would pay, the schools were engaging in Type I collusion. The schools did compete on the basis of price, however, for the wealthier students; their tuition charges for non-scholarship students were not identical. Moreover, the Ivy Overlap Group agreed not to provide merit-based scholarships for the wealthier students. The Ivy Overlap Group thus was engaging in Type III collusion concerning these students since an agreement not to offer merit-based scholarships was an agreement over an important aspect of potential competition between these schools.

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employment, and how much the student was likely to receive in outside scholarships. *Id.*

186. *Id.* at 664.

187. *Id.*

188. *Id.* at 675. There were additional reasons for the Court's decision.

189. *Id.* at 678. The economic analysis of this case is somewhat more difficult than that addressed by the courts in this case. Unlike double coupons, the discrimination in college tuition based upon need related to differences in valuations by consumers placed upon an Ivy League education, though it is likely that consumers would also have shopped among colleges based on the price offered.

190. *Id.* at 677. This analysis was also to include a determination of whether the agreement was reasonably necessary to further its legitimate goals, and was to extend to other factors as well. *Id.*

191. MILTON HANDLER ET AL., TRADE REGULATION 329 (4th ed. 1997).

III. PRACTICES THAT HAVE SOME ATTRIBUTES OF TWO COLLUSION CATEGORIES

Most of our examples thus far have been presented as if our three collusion categories are necessarily distinct. We have shown how each type of collusion is distinct as to methods, mechanism, and effects, and have analyzed a number of cases and classified them as being within one category or another. In reality, however, many real world cases are more complicated and defy simple categorization. Many complex arrangements, such as the Ivy Overlap case just discussed, have characteristics or effects of two collusion categories. The Ivy Overlap case, however, is unusual in that respect, as many examples of Type I collusion stand alone. If every firm in an industry agrees to raise prices, this often is enough to ensure supracompetitive pricing.[192]

By contrast, Type II collusion will often be accompanied by Type I collusion. As a Type II cartel raises its rivals' costs, its members often must engage in Type I collusion. Otherwise cartel members may compete away the potential profits that could be gained by taking advantage of their higher-cost, weakened or chastened rivals.[193] Therefore, the two forms of collusion often will go together.

On the other hand, Type III collusion generally will be undertaken under those circumstances where Type I collusion would be unlikely to be successful,[194] or would be likely to be detected.[195] In many respects, Type III collusion can be thought of as an imperfect substitute for Type I collusion, as a way of making an industry better for cartel members, but not imitating a monopoly as perfectly as classic collusion. Type I collusion transforms an industry into a monopoly; Type III collusion merely reshapes rivalry so that members are insulated to some degree from competition. Type III collusion, like Type I, is inwardly directed, but it involves no direct agreement over final product prices, output, or market division.[196] Of course, firms may agree

192. This assumes the existence of barriers to entry, etc. *See supra* note 17. To the extent that higher prices beget entry, Type I collusion can be impaired. A possible response by the cartel is to hinder or handicap this new entry through Type II or Type III collusion.

193. *See supra* note 28 and accompanying text.

194. Classic collusion might be too difficult to implement where, for example, products or prices are heterogeneous, transactions are too difficult for the cartel to monitor, or it would be too difficult for the cartel to punish cartel members who deviate from the agreement.

195. While it certainly would be possible for a cartel to employ Type III collusion to supplement Type I collusion, this often would be redundant and unduly risky.

196. Territorial or customer allocation schemes also involve no direct agreement over prices. Firms can set prices independently within their exclusive section of the market.

upon practices that facilitate Type I collusion or make Type I cartels more stable, and these facilitating practices are, in some respects, changes in the rules of competition in the industry. However, since their ultimate goal is to assist the formation or functioning of a price fixing agreement, these cases should be considered forms of Type I cartels.[197]

Many examples of Type III collusion do have accompanying Type II effects. Type III advertising restriction cases, for example, also can have the effect of disadvantaging some rivals or potential rivals. Often these cases will involve some classes of rivals who would not independently give up their ability to advertise. More generally, it is likely that many or most changes in major competitive rules under which an industry operates will have disparate impacts on different classes of firms within the industry. Since Type III cartels are primarily directed inwards, this is unsurprising.

As an illustration, consider an important case that was analyzed above. The straightforward effect of the advertising restrictions in *Mass. Board* was to manipulate the rules of competition in a manner that made comparative shopping more difficult for consumers. These increased consumer search costs led to higher prices.[198] In addition, the advertising restrictions also seem to have had the effect of impeding firms that wanted to enter the market and hampering firms within the market that want to expand aggressively. We do not know whether the restrictions at issue in *Mass. Board* actually caused the promotion costs of new or prospective opticians to increase.[199] Although we lack the necessary data, we would not be at all surprised if the restrictions did cause the revenues of some types of firms within the industry to decrease.[200] Nevertheless, this case is a good example of practices that have both Type II and III effects.

Contrast this with polar examples of relatively “pure” Type III and

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197. Our Type III collusion over rules is different from non-cooperative adoption of practices felt likely to facilitate cartel formation or stability. Compare the FTC’s unsuccessful action against manufacturers of tetraethyl lead in *E. I. duPont de Nemours & Co. v. FTC*, 729 F.2d 128 (2d Cir. 1984) (setting aside *Ethyl Corp*., 101 F.T.C. 425 (1983), with the double coupon example. In *Ethyl*, the firms in question were not alleged to have agreed over either prices or rules. In the double coupon cases, the grocery stores did agree to set rules for competition, but they did not agree on any prices.

198. *Mass. Bd.*, 110 F.T.C. at 552.

199. Indeed, a ban on advertising could actually cause the opticians to save money.

200 In *Mass. Board*, discount chain stores with a proclivity towards aggressive advertising campaigns seem to have been particularly hurt by the restrictions. *Id.* Relative to these firms, the more traditional opticians benefited. The cartel might well have adopted the restrictions initially primarily to change the rules of competition within the industry. Only later did the advertising restrictions play a significant role in slowing down the spread of the relatively new discount chain operations. *See also* Kwoka, *supra*, note 57; Bond et al., *supra*, note 57.

Type II cartels. The San Jose newspaper boycott, for example, clearly manipulated the rules of competition in that industry.[201] It would be difficult, however, to find significant ways in which this boycott was similar to, or had the effects of, either Type I or Type II collusion. There is no reason to believe the boycott was part of a cartel plan to engage in classic collusion over prices or related terms. Nor is it likely that any actual or prospective rival dealers had their costs raised, or their revenues reduced, by the practices. Rather, the overwhelming effect of the boycott was to manipulate the rules of competition in a manner that helped the entire industry vis-à-vis consumers. Among the relatively pure Type III cases discussed above are *Dillon*,[202] *Fastline*,[203] and *Indiana Federation of Dentists*.[204]

By contrast, consider a well known Type II collusion case. *Allied Tube & Conduit Corp. v. Indian Head, Inc*. involved an agreement by a group of producers of steel conduit for electrical wiring used in the walls and floors of buildings.[205] Rival firms had begun to manufacture conduit made from plastic, which had a number of cost and other advantages over the steel variety. Defendants, members of the National Fire Protection Association, an organization that promulgated the National Electric Code, agreed to vote to exclude plastic conduit from the forthcoming version of the Code.[206] If plastic conduit were not certified through a listing in the Code, its sales would decline dramatically. The effect of the agreement therefore was to reduce the revenues of plastic conduit manufacturers significantly—a Type II effect. The steel manufacturers' agreement was not, however, a Type III agreement since it was outward in nature, and directed against a group of rivals. It involved no inwardly directed manipulation of the ways in which manufacturers of steel conduit competed against one another, nor was it a Type I cartel. There was no indication that, at any time, the manufacturers of steel conduit conspired to fix prices either directly or indirectly.[207]

Types II and III collusion do, however, have one similarity. Some Type III collusion is directed towards entities outside of the cartel, and can disadvantage them by raising their costs or reducing their revenue. For example, the direct target of the collusion in *Santa Clara Motor Vehicle*

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201. *See supra* Part II.A.2.c.

202. *See supra* Part II.A.2.b.

203. *See supra* Part II.A.1.c.

204. *See supra* Part II.B.1.

205. 486 U.S. 492 (1988).

206. *Id.* at 495-96. Defendants offered a number of defenses, including that they had valid scientific bases for their actions and that they were just petitioning governmental units. *Id.* at 498-511.

207. *See generally, id.*

Dealers was a newspaper,[208] in *Fastline* a circular,[209] in *ES Development* a planned auto mall,[210] in *Dillon* a television station[211] and in *Indiana Federation of Dentists*, insurance companies.[212] But the harm to the third parties was incidental—they were harmed only to facilitate or further the manipulation of the rules of competition. It was simply a necessary, intermediary part of an overall plan to change the rules of competition.[213] By contrast, the primary victims of Type II collusion are all members of, or potential entrants into, an industry.[214]

Many cartels—like cases of ordinary price fixing, or the San Jose newspaper boycott case—are relatively pure, and can fairly be classified as being solely within a single collusion category. But others have mixed attributes, primary and secondary effects, or a balance of effects from two categories that change over time[215] or depend upon which activities or parties predominate.[216] In these cases our classification should not be thought of as three completely separate boxes into which all cartels can be classified. Rather, it should be viewed as a way to identify and highlight three attributes or intermediary goals of collusion, one or more of which will be present in every case that is anticompetitive.

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208. *Supra* Part II.A.2.c.

209. *Supra* Part II.A.1.c.

210. *Supra* Part II.A.2.d.

211. *Supra* Part II.A.2.b.

212. *Supra* Part II.B.1.

213. In some of these cases the collusion would change the rules of competition in a manner that benefited the cartel. Other times it would preserve the old ways against a change to a more competitive equilibrium.

214. Of course, a firm which believed that it would be disadvantaged by Type III collusion often could, at least to some extent, refuse to go along with or protect itself from some of the cartel's effects. For example, not every dentist in Indiana believed that their individual interests would be served through participation in the boycott, and not every dentists chose to participate in the cartel. *Supra* Part II.B.1. Dentists who believed they would be better off if they agree to provide x-rays could do so subject, of course, to whatever pressures the Federation could employ to encourage their participation. For example, a general practitioner might be able to resist more than a specialist who relied upon cartel members for referrals.

These protective actions constitute another reason why the main effect of the practices in question was outward oriented towards consumers through their surrogates, the insurance companies. Effects on rival dentists were secondary.

215. *Supra* Part II.B.2.

216. In *ES Development*, for example, any car dealer invited to join the nascent auto mall in who engaged in the boycott would be engaged in Type III collusion, while a dealer who was never invited to join would be engaged in Type II collusion.

IV. WELFARE EFFECTS OF TYPE III COLLUSION

The welfare effects of Type III collusion are more difficult to characterize than those of Type II or, particularly, Type I, collusion. One problem is that agreements for purposes other than monopoly can often be desirable. Accordingly, competitors are permitted to devise rules for their industries, in the form of standards or otherwise, as long as the rules do not significantly reduce competition among them. In some cases rules have been held to be lawful even when an avenue of competition is ruled out, because the benefits of the rule are held to more than counterbalance any anticompetitive effects. Some of the practices addressed in the Supreme Court's *CDA* decision[217] fall into this category. So too does a decision to permit firms to agree not to engage in a form of bidding behavior which could have been pro-competitive in effect, but which carried with it an incentive for bidders to distort the products they provided.

The case in question is *Vogel v. American Society of Appraisers*.[218] Vogel, an experienced gem appraiser, charged a flat rate of one percent.[219] Although he had been a member of the American Society of Appraisers, the group expelled him out of the belief "'that it [was] unprofessional and unethical for the appraiser to do work for a fixed percentage of the amount of value . . . which he determine[d] at the conclusion of his work.'"[220] Vogel sued, alleging price fixing.[221]

Judge Posner observed, "[i]n general, the only types of horizontal price agreements that the antitrust laws have been held to forbid are those that have the purpose or likely effect of raising price above the competitive level."[222] Judge Posner observed that Vogel's system of charging a one percent appraisal fee was not a charge related to the time, skill, or effort needed to perform the appraisal. Rather, it was a way to charge more to wealthier or less sophisticated customers. He called Vogel's fees a form of "price discrimination, which is normally anticompetitive."[223]

Judge Posner also noted that the Society's prohibition against percentage appraisal fees seemed to have been based upon legitimate ethical concerns.[224]

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217. *See supra* Part II.A.1.b.

218. 744 F.2d 598 (7th Cir. 1984).

219. *Id.* at 599. Vogel's rate was subject to a ten dollar minimum.

220. *Id*. (quoting the American Society of Appraisers bylaws).

221. *Id.* at 600. He also alleged a boycott, but Judge Posner did not find it necessary to consider this allegation separately.

222. *Id.* at 601. He then noted two exceptions to the rule that limited per se illegality to practices that raised prices: buyer cartels and maximum price fixing. *Id.* at 601-02.

223. *Id.* at 602.

224. *Id*. at 603.

The method gave the appraiser an incentive to value the gem at an unduly high price. Some customers, such as those who wanted to sell their gems, also had an incentive to want the appraised price to be higher than their gem was worth, so they also might have wanted an inaccurate appraisal.

Judge Posner added that he doubted that the members of the Association were altruists. Rather, he presumed that they banned the practice of appraisals based upon a percent of value out of a fear that it would bring the appraisal business into disrepute and thus lower their profits in the long run.[225] He concluded that the "challenged bylaw is more likely a praiseworthy effort at self-regulation than a device for facilitating supracompetitive pricing."[226]

The court rejected Vogel's challenge to the Society's bylaw. Clearly the bylaw affected competition among appraisers, but Judge Posner's decision appears to have been correct.[227] This case illustrates that decisions regarding Type III collusion will be difficult, but in many cases, the anticompetitive consequences of the agreements, particularly those increasing consumer search costs, will be clear. We analyze such cases below.

A. Welfare in One-Price Markets

When a market functions competitively, it will maximize the welfare of society as a whole.[228] Both consumers and producers benefit.[229] In a well-functioning market, consumers will search out those products most suitable for their needs. They also search for the best prices, utilizing whatever information they have or can acquire cost-effectively.

Different consumers often value products differently, yet in most markets every consumer pays the same amount. Except for the most marginal of consumers, whenever a consumer purchases in a competitive market, she receives as a benefit "consumers' surplus"—the difference between that amount that a product is worth to her (her "willingness to pay") and the price she actually pays for it. In graphical terms, the consumer surplus associated with a particular unit is given by the difference between the height of the demand curve for that unit and the price a consumer pays for the unit. For example, in Figure 1, if the price charged in the market illustrated is p_m, then q_m units will be purchased. The last unit purchased has a value to its consumer equal to p_m; no consumer surplus is generated by its consumption.

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225. *Id.* at 602.

226. *Id.*

227. Note, however, that the anticompetitive prospect that concerned Judge Posner was that the rule might affect the success of a cartel among appraisers, not that ruling out one form of competition might simply soften price competition among appraisers.

228. TIROLE, *supra* note 18, at 6. We ignore complications such as externalities.

229. *Id.*

However, for each of the remaining units between 0 and p_m, willingness to pay exceeds the price paid, generating a total consumer surplus of area ABp_m. If sellers could somehow separate consumers from one another and read their minds, they would be able to price discriminate and acquire this wealth—the price charged for each unit will equal the height of the demand curve for that unit, and area ABp_m would be captured by the seller.[230] Even most real world monopolies, however, must pick a single supracompetitive price, such as p_m in Figure 1. This enables a monopolist to acquire some, but not all, of the consumer surplus.

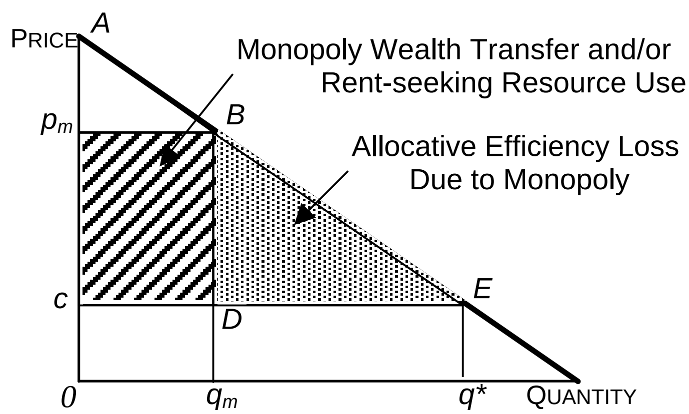

Figure 1: Consumer Surplus and Deadweight Loss

When collusion is effective it can diminish welfare in significant ways. Moreover, each of the three categories of collusion leads to different types of deleterious effects on welfare. In particular, Type III collusion leads to welfare problems that are even more complex and numerous then those caused by Type I or Type II collusion.

Type I collusion leads to a well-known set of welfare effects. Since a Type I cartel directly raises prices, it causes a loss of societal wealth termed allocative inefficiency.[231] These higher prices also cause wealth to be

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230. The monopolist could also capture the area *BDE*, since the units between q_m and q_c could be sold without affecting the amount the monopolist could charge for the first q_m units.

231. *Id.* at 67. In Figure 1, a monopoly price of p_m is above marginal cost, *c*. This results in output of q_m, below the optimal output, q^*. The resulting loss of allocative efficiency is given by the area *BDE*.

transferred from consumers to the cartel,[232] to be dissipated in the form of rent-seeking behavior,[233] or both. From society's perspective, costs to the cartel of holding itself together or of disciplining cheaters also are welfare reducing.[234]

Since Type II cartels lead to supracompetitive pricing, they can also cause each of the detrimental effects on consumer welfare that are caused by Type I collusion. In addition, collusion to disadvantage rivals also requires the wasteful expenditure of resources to accomplish the cartel's objectives.[235] Type II collusion can lead to defensive measures by the victims of the cartel that are, from society's perspective, wasteful, and needed to be added to the added cost burden the rivals incur.[236]

The welfare effects of Type III cartels are even more numerous and complex. Since prices to consumers are higher than they would have been in the absence of the cartel, Type III cartels lead to every type of welfare loss associated with Type I cartels.[237] Additionally, some Type III cartels, like Type II cartels, involve attacks on other firms.[238] The costs of implementing these attacks, and the defensive maneuvers they spawn, constitute a waste of societal resources just as they do when they are generated by Type II cartels.

In addition, most Type III cartels increase consumer search costs.[239] These increased costs are not captured by the cartel. From the cartel's

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232. Whether this transfer is undesirable or is a concern of the antitrust laws is controversial. Robert H. Lande, *Wealth Transfers as the Original and Primary Concern of Antitrust: The Efficiency Interpretation Challenged*, 34 HASTINGS L.J. 65 (1982).

233. Richard A. Posner, *The Social Costs of Monopoly and Regulation*, 83 J. POL. ECON. 807 (1975); *see also* TIROLE, *supra* note 18, at 76. In Figure 1, area p_mBDc is the additional cost to consumers of monopoly pricing at p_m compared to the marginal cost pricing at c that would characterize a perfectly competitive market. An aspiring monopolist will be willing to pay up to this amount to secure its monopoly. If it uses real resources in the process, for example in paying for advertising campaigns in support of politicians that favor its position, the resources used represent social welfare loss. The area is, instead, a transfer from one pocket to another if the monopolist simply gets to keep its rents or if it transfers its rents directly to the pockets of politicians in order to secure the monopoly.

234. These costs are included in the area p_mBDc in Figure 1.

235. As for Type I cartels, some of the consumer surplus would in this way be dissipated instead of acquired by the cartel.

236. Krattenmaker & Salop, *supra* note 32, at 247, 279-81; Krattenmaker, et al., *supra* note 28, at 244-45, 249, 266-69.

237. This includes the losses potentially associated with disciplining cartel members.

238. However, the targets of Type II cartels are within or potentially within the industry, while the targets of Type III cartels are outside the industry. For example, the target of the cartel in the Santa Clara County Motor Vehicle Dealers case was the *San Jose Mercury News* newspaper that published information that permitted consumers to shop more effectively. *See supra* Part II.A.2.c.

239. *See, e.g.*, the discussions of *Nat'l Society of Professional Engineers*, *supra* Part II.A.2.e; *ES Dev.*, *supra* Part II.A.2.d; *Dillon*, *supra* Part II.A.2.b.

perspective they are undesirable since expenditures by consumers in the form of artificially increased search costs constitute revenue that cannot be captured as profit by the cartel. Indeed, the cartel would prefer to make search so expensive as to render it economically impracticable, thereby presenting firms with monopoly power through consumer isolation. From society's perspective, while the costs of information are simply a cost of making markets function, artificially increased consumer search costs, like the costs expended by the cartel to cause them, are a waste of resources.

Many Type III cartels also decrease consumer welfare by lowering the quality or variety of products consumers would have received if the market had been operating normally. Consider, for example, *Detroit Auto Dealers Ass'n*.[240] Not only did the hour restrictions lead to higher automobile prices; because their shopping time was sub-optimal, consumers may have been forced to settle for a car less precisely suited to their needs.[241] This holds true for other cases—consumers might have been subjected to unnecessary or fraudulent dental work,[242] or might have had to settle for a lawyer,[243] engineer,[244] or condominium manager[245] that was sub-optimal for their purposes. A Type III cartel might have prevented consumers from finding out that there was an optical product[246] or agricultural vehicle[247] that would benefit them. From the consumers' perspective, the quality of their purchases decreased.

B. Welfare Losses with Price Discrimination

Many of our examples of Type III collusion involve consumers of varying types who pay prices that vary according to customer type. The efficiency effects of price discrimination are typically ambiguous so that,

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240. *Supra* Part II.A.2.a.

241. Potential purchasers commonly test drive a number of cars before they can determine which one best suits their particular needs. If consumers must shop at times they find undesirable, such added costs need to be counted as social welfare loss. In addition, we need to include any losses due to "settling" for a suboptimal selection, as discussed in conjunction with *Fastline*, *supra* Part II.A.1.c. For instance, if a consumer pays $20,000 for a green car, but would have been willing to pay $22,000 for an otherwise identical car at another dealer that the consumer would have shopped if not for the agreement to restrict dealer hours, social welfare costs need to include the foregone $2,000 in consumer surplus net of additional search costs incurred.

242. *See supra* text accompanying note 130.

243. *See supra* Part II.A.1.a. (discussing *Bates*).

244. *See supra* Part II.A.2.e.

245. *See supra* Part II.B.3.

246. *See supra* Part II.B.2. (discussing *Mass. Bd*.).

247. *See supra* Part II.A.1.c. (discussing *Fastline*).

unlike simple cartel price fixing, a case-by-case analysis is likely to be appropriate before agreements either to facilitate or to impair discrimination can be evaluated. Such analyses must confront two major sources of ambiguity, one tied to efficiency and the other to distribution. First, price discrimination may often lead to increased sales—the customers who are offered discounts are those most likely to respond to low prices by increasing their quantities demanded, while their counterparts facing higher prices are not as sensitive, and hence less willing to cut back. Output increases are desirable, since for such products price exceeds marginal cost, and therefore society benefits from increased production. Here, there are two forces operating in opposite directions. First, the allocation of existing output is made worse, because more consumption is done by customers who place a relatively low valuation on the additional units, while high marginal valuation customers (possibly) consume less. Second, output may not increase at all, because shaving off customers who search intensively may allow for much higher prices for those who do not, so that even though customers who receive discounts are more responsive to price changes than those who pay higher base prices, the latter must respond to much larger price increases than the price declines for the more elastic customers.[248]

The second problem with assessing welfare effects of price discrimination is determining the standard under which such effects are evaluated. The effects on overall economic welfare may in many cases be quite small in comparison to the very large income transfers from consumers to producers that price discrimination can facilitate.[249] These problems can be illustrated if we employ a number of simplifying assumptions. Assume that the suppliers whose behavior we wish to analyze are retailers who purchase from an upstream manufacturer for resale to consumers. All suppliers are assumed to pay a common wholesale price and to incur identical and constant per unit distribution costs, the sum of which is denoted by c.[250] Consumers are also assumed to have identical demands for the product in question, but are assumed to differ in the amount of information about competing suppliers that they have chosen to obtain. Figure 2 depicts the market demand curve for a representative customer. The demand curve facing a particular supplier

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248. For a detailed discussion, see Hal R. Varian, *Price Discrimination*, *in* HANDBOOK OF INDUSTRIAL ORGANIZATION 597-654, (Richard Schmalensee & Robert D. Willig eds. 1989).

249. As we observed previously, whether this transfer is undesirable or is a concern of the antitrust laws is controversial. *See supra*, note 232.

250. Note that this common assumption is problematic in our case, for it suggests that Type III collusion will need to be accompanied by some form of limitation on the behavior of individual firms akin to Type I collusion. We ignore this problem to keep our example simple.

will be more elastic than this market demand curve, reflecting the competing options available to the consumer. The firm-level demand of well-informed consumers will be much more elastic than this schedule, while the firm-level demand of uninformed consumers will approach the demand schedule illustrated in Figure 2.

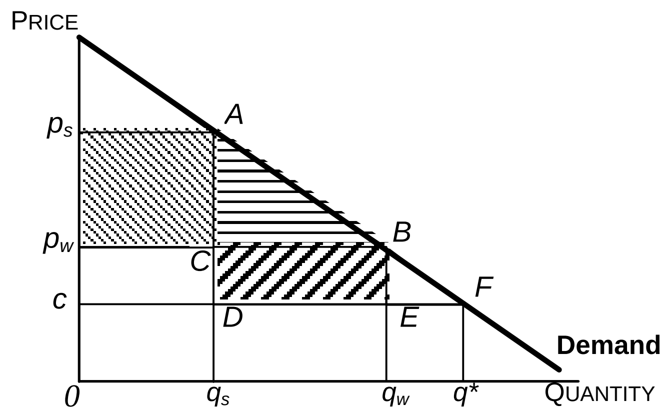

Figure 2: Welfare under Imperfect Competition with Price Discrimination

Since the demand schedule in Figure 2 represents market demand, it is not possible to illustrate the process by which firms select their prices. Prices will be determined according to the demand schedules facing individual firms. It is customary in the economics literature to refer to price discrimination as occurring between two markets that differ in their elasticities of demand. The less elastic market—in our case, the one whose customers do not have good alternatives to purchasing from the firm in question—is termed the strong market, while the more elastic market is the weak market. In Figure 2, p_s denotes the price charged to customers in the strong market, and p_w the corresponding price for the weak-market customers. Given that the suppliers are assumed to be imperfectly competitive, possessing some market power, prices in each market will exceed the optimal price, *c*. A price above marginal cost discourages consumers from purchasing the optimal number of units, q_c. Any quantity demanded below q_c means that some units that could have been sold in this market for more than their opportunity cost, *c*, are not sold. The result is a social welfare loss. For the weak market, the loss for one consumer is indicated by the area *BEF* on the diagram. The higher price, p_s, charged to less well-informed consumers yields a higher social welfare loss, indicated by area *ADF*.[251]

Consider the welfare impact of the *San Jose Mercury News* article instructing consumers how to move from the strong to the weak market. Prices in the two markets will not change in response to a movement of a small number of customers from one market to the other, but welfare certainly will. For each customer switched, social welfare increases by the shaded area *ABED*, the difference between the social welfare losses in the two markets. Consumers benefit far more, however, because any consumer paying the lower price, p_w, gets the benefit of that price break on the units she would have purchased even at the higher price. That transfer is given by area p_sACp_w. The total benefit to consumers is given by that area plus their share of the gain in surplus due to the purchase of additional units, for a total of p_sABp_w. Firms pick up the profits they make on the additional units sold, *CBED*, but lose p_sACp_w to consumers, for a net loss. The loss of the transfer provided the source of the dealers' ire against the *Mercury News*.

This case is easy to analyze because the movement of a consumer from the strong market to the weak market does not affect the price in either market. Firms would be charging prices designed to maximize profits from strong-market customers prior to defections to the weak market. To raise strong-market prices in response to such defections would therefore decrease strong-market profits. Hence it is quite likely that agreements such as those in *Fastline* and *Santa Clara County Motor Vehicle Dealers*, which are designed to limit movements between markets, will reduce welfare. It is necessary to take into account any additional costs of information or negotiation incurred in consequence of consumers shifting markets, but these will be minor in comparison to the significant benefits, particularly for consumers, of permitting non-price competition to occur unchecked.

The analysis of welfare effects is more difficult for agreements that affect whether or not price discrimination occurs in the first place, or, if it does, how much of a discount is offered. For example, if firms can use advertising, coupons, or other devices to induce high-elasticity customers to separate themselves from the firm's less price sensitive customers, the beneficial impact of lower prices for some customers must be offset by the harmful effect on others. Referring again to Figure 2, suppose that competition for weak-market customers pushed the price not just to p_w, but

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251. Figure 2 represents a considerable simplification in the interests of managable exposition. In practice, welfare losses for strong-market customers will be smaller than illustrated compared to those of weak-market customers. The strong-market customers, characterized by relatively inelastic demand, will be less willing to avoid consuming the good in question due to high prices. The source of social welfare loss is underconsumption of the good, given that its marginal value to consumers (the price they pay) exceeds the cost to society of producing additional units.

all of the way down to *c*. Suppose also that the strong-market customers were so ill-informed that they could be charged the monopoly price by whichever supplier they chose. The discount offered to weak-market customers is then $p_s - c$. What would be the effect of reducing or eliminating this discount? Low price consumers would buy less and, to the extent that high prices fell, strong-market customers would buy more. Some surplus would be lost from the reduced sales to weak-market customers, though, initially at least, not much. Since the last units purchased by these customers are valued at little more than marginal cost, they do not generate much surplus if purchased, and hence not much is lost if purchases are cut. In contrast, an additional unit sold to high price customers generates a surplus of approximately distance *AD*, obviously a large gain.[252] Thus agreements that limit price discrimination or that make it impossible may result in lower prices for some customers, and overall welfare gains.

While this possibility may suggest a rule of reason analysis is appropriate for such agreements, we believe that the presumption should nevertheless be that the agreements are anticompetitive in intent and effect.[253] For example, consider a firm's unilateral decision to offer double coupons. Note that the offer to double coupon values will provide a discount on grocery store margins to customers willing to collect and redeem numbers of coupons without necessarily affecting their purchases of the coupon items (they might well have redeemed the manufacturer's coupons even without the extra inducement, and are typically limited as to the number of units on which they receive coupon discounts). Suppose that consumers who do not redeem coupons can be charged a monopoly grocery store margin, owing to the absence of competition. Suppose also that double coupons yield net margins for redeemers near to the competitive level. In the absence of the ability to offer double coupons, groceries might well choose instead not to compete for weak-market customers, instead offering the monopoly price to their committed strong-market customers. The result of limiting or eliminating discounts would then be to raise prices to some customers with little or no offsetting benefits to the remaining customers.[254]

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252. This welfare argument is offered by Winter, *supra* note 179.

253. *But see, In re* Brand Name Prescription Drugs Litig., 186 F.3d 781, 787-88 (7th Cir. 1999).

254. This argument is intended only to be suggestive. Models of third-degree price discrimination under oligopoly are typically quite complex, with welfare implications sensitive to the assumptions incorporated in the model. For an example in which third-degree discrimination increases welfare of both the customers who shop and those who do not, see Kenneth S. Corts, *Third-Degree Price Discrimination in Oligopoly: All-Out Competition and Strategic Commitment,* 29 RAND J. ECON. 306 (1998). Most models agree that the suppression of discounts is least desirable when discounts are offered based upon the willingness of

V. CONCLUSIONS

While it is customary to think of anticompetitive agreements as those designed to achieve an outcome approximating the monopoly solution for the target market, many important agreements that have been the focus of prominent antitrust cases do not fit this category of offenses. The aim of such agreements is not to replace competition with monopoly cooperation, but instead to shape and soften competition among cartel members in order to increase the profits of the parties to the agreement. Our new category, Type III collusion, together with classic collusion to fix prices and agreements to harm outside rivals, constitute a complete classification of agreements presenting antitrust problems.[255] And since more straightforward collusion is clearly illegal, it is unsurprising that examples of Type III collusion also are widespread.

This new category of agreement includes instances of collusion that are often subtle and complex. Most of the examples of collusion to manipulate the rules of competition have arisen in industries with heterogeneous products, or in industries where it would be extremely difficult for a classic cartel to monitor prices or to detect firms that deviate from agreed-upon prices. Under such circumstances one would expect traditional price fixing agreements to be uncommon. By contrast, in such markets it is not surprising to find cartels that change the rules of competition, of the type described in this Article.

Type III cases thus deserve special recognition, for they are not merely attempts to facilitate Type I collusion. Accordingly, their legality should not be judged by whether they ultimately contribute to the formation of price fixing or of any type of a traditional stable cartel, but rather in terms of their immediate impact on prices and resource allocation. Monopolies will not plausibly emerge in many of the affected markets, but firms in those markets can still profit substantially by weakening, though not destroying, competition

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consumers to switch suppliers, as opposed to exploitation of differences in consumers' valuations. It seems likely that the differences among consumers in the valuation of the services provided by grocery stores is not nearly so large as differences in their willingness to switch outlets in response to monetary inducements, suggesting that double coupons likely reduce welfare.

255. Although this article has analyzed only horizontal agreements, the trichotomy it has developed might be able to be employed to classify accurately and to explain every other type of antitrust case as well. This would entail categorizing anticompetitive single firm behavior and vertical agreements into Type I behavior to attain a monopoly-like outcome directly, Type II offenses to disadvantage rivals, and Type III manipulation of the rules of competition.

among themselves. The persistence of some competition or an absence of a shared monopoly in such markets is thus not sufficient to defend challenged agreements from antitrust scrutiny.

It must be remembered that this category of antitrust violation still requires market power, which ultimately is still defined as the power to raise price significantly above marginal cost and to exclude, or at least to impede substantially, entry by firms attracted by enhanced profits. But the mechanism by which this arises is more complex; the changed rules of competition lead to independently set supracompetitive pricing, not the collusively determined pricing of classic collusion. This underscores that the antitrust enforcers must be alert to much more than the traditional manifestations of market power. They must guard against the three distinct variations of market power that correspond to the three classes of cartels we have identified.

This Article's classification scheme and new paradigm thus lead to a number of benefits. It can help enforcers to concentrate on identifying anticompetitive practices in certain industries—to look especially hard for collusion to manipulate the rules of competition in industries where classic collusion seems unlikely. Likewise, it will help them to understand why certain non-traditional practices are likely to harm consumer welfare. Finally, joint corporate practices that do not have the characteristics of Types I, II, or III collusion should be regarded as benign or procompetitive. This paradigm and trichotomy therefore should act both to help enforcers identify practices most likely to harm consumer welfare, and also to reassure them that other practices should not be the subject of antitrust concern.