

A CLOSE ANALYSIS OF BUYERS AND ANTITRUST MARKETS

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INTRODUCTION

Determining the relevant market is an important step in much anti-trust analysis, such as when evaluating whether a firm possesses monopoly power, a merger lessens competition, or a practice restrains trade.¹ Yet, despite recent advances,² the methodologies for defining a relevant market remain more a matter of "art" than "science."

It is clear from case law and scholarly writings that a relevant market should include close demand and supply substitutes.³ What is not clear

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1. A relevant market is an "area of effective competition." *Standard Oil Co. v. United States*, 337 U.S. 293, 299 n.5 (1949). Determination of a relevant market should be based on the commercial realities of the marketplace. *See United States v. Grinnell Corp.*, 384 U.S. 563, 572 (1966). *See also Continental T.V., Inc. v. GTE Sylvania Inc.*, 433 U.S. 36, 53 n.21 (1977) ("an antitrust policy divorced from market considerations would lack any objective benchmarks"); *United States Steel Corp. v. Fortner Enters.*, 429 U.S. 610, 620 (1977) (a tying arrangement is per se illegal only if the seller has the power to raise prices or impose burdensome terms in the "market for the tying product"); *United States v. E.I. du Pont de Nemours & Co.*, 353 U.S. 586, 593 (1957) ("Determination of the relevant market is a necessary predicate to a finding of a violation of the Clayton Act . . ."); 2 P. AREEDA & D. TURNER, *ANTITRUST LAW* 330-46 (1978).

2. *See, e.g.*, Merger Guidelines of Department of Justice—1982, 2 TRADE REG. REP. (CCH) ¶ 4500 (Aug. 9, 1982); 2 P. AREEDA & D. TURNER, *supra* note 1, at 346-88; Elzinga, *Defining Geographic Market Boundaries*, 26 ANTITRUST BULL. 739 (1981); Elzinga & Hogarty, *The Problem of Geographic Market Delineation in Antimerger Suits*, 18 ANTITRUST BULL. 45 (1973); Horowitz, *Market Definition in Antitrust Analysis: A Regression-Based Approach*, 48 S. ECON. J. 1 (1981); Landes & Posner, *Market Power in Antitrust Cases*, 94 HARV. L. REV. 937 (1981); Werden, *The Use and Misuse of Shipments Data in Defining Geographic Markets*, 26 ANTITRUST BULL. 719 (1981); Note, *The Role of Supply Substitutability in Defining the Relevant Market*, 65 VA. L. REV. 129 (1979); Werden, *Market Delineation and the Justice Department's Merger Guidelines* (1982) (U.S. Department of Justice Antitrust Division Economic Policy Office Discussion Paper).

3. For example, the relevant product market for bottles consists of all products either that consumers consider to be good substitutes for bottles, e.g., cans (demand substitutes), or that are produced with resources that can readily be used in making bottles, e.g., windows (supply substitutes). As defined by the Department of Justice:

is the proper universe of buyers to use as a baseline for identifying close demand and supply substitutes. An error in defining the proper universe of buyers can lead to a mistaken market definition and, consequently, to inaccurate predictions of the effects of an acquisition, merger, distribution restriction, or other action on competition. Many courts have improperly assessed the degree to which one group of buyers can protect another group of buyers from anticompetitive prices and conduct. This article describes a procedure for ascertaining the proper universe of buyers in a market and using this identified group of buyers to define relevant product and geographic markets.

The "affected-buyers" analysis recommended in this article involves three steps. First, identify a group of buyers with a common demand. A firm attempting to increase its price to this group for some output satisfying this common demand may be likely to find that its sales to other buyers are affected as well. Second, designate the "common demand" group plus these other likely affected buyers as the proper universe of buyers for defining the relevant markets. Third, define the relevant product and geographic markets according to the close demand and supply substitutes⁴ for the properly designated universe of buyers.

After describing and illustrating affected-buyers analysis, this article examines two common approaches to defining antitrust markets and explains their flaws. One approach, the "firm-competitors" model, starts the analysis with the firm and attempts to identify its competitors. For example, if a firm has allegedly monopolized sales of a certain product, this approach defines the relevant market as sellers which

a market consists of a group of products and an associated geographic area such that (in the absence of new entry) a hypothetical, unregulated firm that made all the sales of those products in that area could increase its profits through a small but significant and non-transitory increase in price (above prevailing or likely future levels).

Merger Guidelines of Department of Justice—1982, *supra* note 2, ¶ 4502 n.6. *Accord* United States v. E.I. du Pont de Nemours & Co., 351 U.S. 377, 394 (1956); United States v. Columbia Steel Co., 334 U.S. 495, 510-11 (1948); United States v. Empire Gas Corp., 537 F.2d 296, 304 (8th Cir. 1976), *cert. denied*, 429 U.S. 1122 (1977); Telex Corp. v. International Business Machs. Corp., 510 F.2d 894, 916-17 (10th Cir.), *cert. dismissed*, 423 U.S. 802 (1975). Many courts follow Brown Shoe Co. v. United States, 370 U.S. 294, 325 (1962), and apply a combination of criteria to define relevant markets, including non-economic factors. *See also* 2 P. AREEDA & D. TURNER, *supra* note 1, at 349; F. SCHERER, *INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE* 229-66 (2d ed. 1980); Landes & Posner, *supra* note 2, at 944-52; Lavey, *Patents, Copyrights, and Trademarks as Sources of Market Power in Antitrust Cases*, 27 ANTITRUST BULL. 433 (1982).

4. Demand and supply substitutes are discussed *supra* note 3 and *infra* notes 19-20 and accompanying text.

could sell substitutes to some or all of the firm's buyers.⁵ A second approach, the "buyers-alternatives" model, posits particular buyers with similar demand and attempts to identify the firms competing to sell to them. Under this approach, if the claim is that a firm monopolizes sales of a certain product to particular buyers, the firms which could sell substitutes to these buyers comprise the relevant market.⁶

Finally, this article evaluates the merger guidelines issued by the Department of Justice and the Federal Trade Commission in 1982 against the proposed affected-buyers model.

I. AFFECTED-BUYERS MODEL

A. General Description of Affected-Buyers Analysis

As the Supreme Court has recognized, the antitrust laws are designed to promote consumers' welfare.⁷ Supracompetitive prices—prices which yield profits to sellers above the competitive level—are generally associated with a loss of consumers' welfare:⁸ Such prices force buyers to spend their incomes in ways which are less attractive to them than the expenditures they would have made if all goods and services were supplied at competitive prices.⁹

5. Cases following the firm-competitors model are discussed *infra* notes 31-52 and accompanying text.

6. Cases following the buyers-alternatives model are discussed *infra* notes 53-64 and accompanying text.

7. "Congress designed the Sherman Act as a 'consumer welfare prescription.'" *Reiter v. Sonotone Corp.*, 442 U.S. 330, 343 (1979) (quoting R. BORK, *THE ANTITRUST PARADOX* 66 (1978)). A somewhat broader formulation is that the objective of the antitrust laws is to promote economic efficiency. *See, e.g.*, 1 P. AREEDA & D. TURNER, *supra* note 1, at 7-31; R. POSNER & F. EASTERBROOK, *ANTITRUST CASES, ECONOMIC NOTES, AND OTHER MATERIALS* 152-54 (2d ed. 1981).

Consumers' welfare refers to the utility or satisfaction consumers derive from their expenditures and savings. Holding quality constant, a lower price for a commodity generally is associated with a gain in consumers' welfare. *See* T. SCITOVSKY, *WELFARE AND COMPETITION* 48-53 (1971).

8. Profits above the competitive level may actually promote increases in consumers' welfare, because such profits provide an incentive for sellers to be more efficient than their rivals. Incentives for efficiency, together with competition, drive down prices to consumers. When a firm's persistent high profits are not attributable to any greater efficiency of the firm over its rivals, the prices which yield the high profits are associated with a loss of consumers' welfare. *See* 2 P. AREEDA & D. TURNER, *supra* note 1, at 331-41; Schmalensee, *Another Look at Market Power*, 95 *HARV. L. REV.* 1789, 1805 (1982).

9. Some buyers would purchase a product even at a supracompetitive price and, with their reduced budgets, would purchase less of other products or would decrease their savings. Other buyers would respond to a product's supracompetitive price by purchasing alternative goods which are less attractive to them than the product would be if competitively priced. Both of these

The policy of promoting consumers' welfare requires scrutiny of a firm which raises its price above the competitive level without adverse consequences. In a competitive market, the constraint on a firm's incentive to charge a supracompetitive price is the probability that its prospective buyers will turn to competing sellers, making the higher price unprofitable for the firm. A rational, profit-maximizing firm would be forced to lower its price to the competitive level under these circumstances. Much of antitrust enforcement is directed at firms which possess the ability to raise prices above competitive levels without suffering sufficient sales losses to make the higher prices unprofitable, i.e., firms with market power.¹⁰

The proper universe of buyers in an antitrust market should be defined as those buyers figuring in a rational firm's decision whether to charge a supracompetitive price. Correctly identifying the universe of buyers is critical to evaluating the effect of a price increase on the firm's profitability. Improper omission of buyers from this universe may lead to an overestimate of market power by failing to account for lost sales to buyers affected by the supracompetitive price who will turn to alternative sellers. Omission of affected buyers who would not turn to alternatives results in an excessive projection of proportional losses attributable to the supracompetitive price, thereby understating true market power. Erroneous inclusion of non-affected buyers in the universe can also frustrate evaluation of the true impact of the supracompetitive price. If non-affected buyers can turn to alternatives which are not available to affected buyers, inclusion of the former group will produce an underestimate of the firm's ability profitably to charge a supracompetitive price.

consequences of a supracompetitive price are associated with losses of consumers' welfare which are allocative, not just distributional. *See generally* J. GOULD & C. FERGUSON, MICROECONOMIC THEORY 9-88 (5th ed. 1980); T. SCITOVSKY, *supra* note 7, at 55-85.

10. Landes & Posner, *supra* note 2, at 939. *See also* Valley Liquors, Inc. v. Renfield Importers, Ltd., 678 F.2d 742, 745 (7th Cir. 1982) (market power is the "power to raise prices significantly above the competitive level without losing all of one's business"); 2 P. AREEDA & D. TURNER, *supra* note 1, at 322 ("Market power is the ability to raise prices by restricting output").

Economists generally assume that there is an inverse relationship between the quantity of an output produced and its market-clearing price. If a firm with market power restricted its output, the market-clearing price (the price which equates the decreased amount supplied with the quantity demanded) would rise above the competitive level; the firm would be able to sell the decreased amount of output at a higher price. If a firm with market power raised its price, the quantity of its product demanded and hence its sales (output) would fall. Competitive firms, on the other hand, produce the amount of output at which their marginal costs equal the competitive prices. Market power is generally associated with restrictions of output below this amount.

1. *Buyers With a Common Demand*

Affected-buyers analysis starts with a group of buyers with some common demand characteristics that can be satisfied by a firm's particular output (however the output is defined). At this step, it is not important to inquire whether the output chosen constitutes a complete relevant product market incorporating close supply and demand substitutes; the products in the relevant market will be determined by the third step of the analysis. Nor is it important whether the output chosen is an aggregate of several products or a component of a discrete product.¹¹

The buyers in this group would actually purchase the particular output from a specific firm if the output is priced at the competitive level.¹² The group may be smaller than all purchasers of that output or substitute outputs; it also may be smaller than all purchasers of that output from that firm. Finally, each buyer in the group should be covered by the protection of the antitrust laws.¹³ This "common demand" group will be referred to as the protected buyers.

From the perspective of the selling firm, charging a higher price for the output may affect sales to buyers other than the protected buyers. The responses of these other buyers to the higher price also should be considered in the firm's decision whether to raise its price to the protected buyers. For example, the firm may be unable to charge differing

11 Buyers of blue widgets from a certain firm may be a group subject to antitrust injury, i.e., a loss of welfare caused by a lessening of competition. *See, e.g.*, *Blue Shield v. McCready*, 457 U.S. 465, 482-83 (1982); *Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc.*, 429 U.S. 477, 489 (1977). The question of whether a group may be subject to antitrust injury must be distinguished from the question of whether the group has close demand and supply substitutes for blue widgets. The third step of affected-buyers analysis explores whether a set of buyers, including buyers of blue widgets, can substitute blue gidgets and whether producers of green widgets can produce products satisfying their demands. Linkages to other buyers and demand and supply substitutes may protect buyers with a common demand from actual antitrust injury. Note also that buyers of blue widgets might be subject to antitrust injury even though the firm sells other forms of outputs that include blue widgets or are portions of blue widgets. *See infra* note 73.

12 Contracts or regulation can prevent a firm from raising its price to particular buyers. *See, e.g.*, *United States v. General Dynamics Corp.*, 415 U.S. 486, 501-04 (1974) (firm bound to long-term requirements contract at fixed price).

13. Although the Supreme Court has never explicitly decided whether the antitrust laws protect foreign nationals, the Court has indicated that the statutes are designed principally, if not exclusively, for the protection of domestic consumers. *See, e.g.*, *Pfizer, Inc. v. Government of India*, 434 U.S. 308, 314-15 (1978). *See also* *Montreal Trading Ltd. v. Amax Inc.*, 661 F.2d 864, 869 (10th Cir. 1981) (finding no jurisdiction over claim by Canadian plaintiff against Canadian subsidiaries of U.S. firms), *cert. demed.*, 455 U.S. 1001 (1982).

prices to different buyers because they have similar demand characteristics, are indistinguishable to the seller, or could engage effectively in arbitrage. In addition, news that a seller raised its price to the protected buyers may cause other current or potential buyers to fear being charged a similar price in the future, thereby affecting their willingness to buy the same output or some other output from that seller. Moreover, charging different prices to competing buyers for commodities of like grade and quality may constitute unlawful price discrimination.¹⁴

2. *Universe of Buyers*

The proper universe of buyers has two characteristics: (1) members would be buyers of some output sold by the firm if the firm charged protected buyers a competitive price, and (2) the firm's sales volume or the selling price to members would be affected if the firm charged the protected buyers a supracompetitive price. Faced with a higher price, some buyers in the universe would continue to purchase the output, while others would turn to substitutes; all are "affected buyers" in the sense of a loss of consumers' welfare following the increase in price to the protected buyers.¹⁵ The affected buyers must be included in the universe because of their perceived linkages to the protected buyers from the perspective of the firm when it prices its outputs. The proper universe of buyers therefore may include buyers with demand characteristics quite different from those of the protected buyers, potential buyers of the firm's output, and buyers who are not protected by the antitrust laws.¹⁶

The central comparison for antitrust analysis is between (1) the firm's profits from sales to all the buyers in the universe at the competitive

14. The Robinson-Patman Antidiscrimination Act, 15 U.S.C. § 13 (1976), prohibits a seller from charging buyers different prices for commodities of like grade and quality when such pricing poses a reasonable possibility of substantially impairing competition between the buyers or sellers and when the price difference is not justified by cost differences or by an effort to meet a price offered by another seller. *See, e.g.*, *Falls City Indus., Inc. v. Vanco Beverages, Inc.*, 103 S. Ct. 1282 (1983); *J. Truett Payne Co. v. Chrysler Motors Corp.*, 451 U.S. 557 (1981); R. BORK, *THE ANTI-TRUST PARADOX* 382-401 (1978); R. POSNER, *THE ROBINSON-PATMAN ACT: FEDERAL REGULATION OF PRICE DIFFERENCES* 49-53 (1976); Cooper, *Price Discrimination Law and Economic Efficiency*, 75 MICH. L. REV. 962 (1977); 1 ABA ANTITRUST SECTION, *MONOGRAPH NO. 4, THE ROBINSON-PATMAN ACT: POLICY AND LAW* 27-37 (1980).

Other government regulations may prevent price discrimination. *See, e.g.*, 47 U.S.C. § 202 (1976) (concerning common carriers of telecommunications).

15. *See supra* notes 8-9 and accompanying text.

16. *See supra* note 13.

price, and (2) the firm's profits from sales to those buyers in the universe who would buy from it after the price is raised to the protected buyers. If the second quantity exceeds the first, then the seller has market power with regard to the protected buyers, i.e., it would be profitable for the firm to raise the price it charges to the protected buyers above the competitive level.¹⁷ Although this comparison seldom can be made quantitatively,¹⁸ it nevertheless reveals an important point concerning market definition. The buyers in the universe identified in the second step—all the affected buyers, not just the protected buyers—provide the basis for evaluating the firm's market power.

3. Demand and Supply Substitutes

The affected buyers determined by the first and second steps serve as the baseline for defining the relevant product and geographic markets. Close demand and supply substitutes are identified with respect to the universe of affected buyers. The output in the relevant product market includes that to which the affected buyers could turn in response to the higher price, i.e., close demand substitutes.¹⁹ The product market also

17. Technically, a firm has market power according to the Lerner index if its price exceeds its marginal cost at its profit-maximizing output. Landes & Posner, *supra* note 2, at 940. The inquiry regarding market power is not whether there would be some demand for a firm's product at a supracompetitive price, or whether there are substitutes for a given product that would be used by those buyers who want exactly the same specifications and properties of that particular product. Rather, the inquiry is whether the firm can profitably charge a supracompetitive price. *See, e.g., H & B Equip. Co. v. International Harvester Co.*, 577 F.2d 239 (5th Cir. 1978):

That one customer told H&B's expert witness that it would take a rise in price of as much as 30 percent before he would consider another machine hardly constitutes substantial evidence that the [machine] was in a class by itself. Even the most ordinary greyhound has its devoted fans at the racetrack.

Id. at 243. *See also supra* note 10. *See generally* Fisher, *Diagnosing Monopoly*, Q. REV. ECON. & BUS., April 1979, at 7, 15.

18. A precise comparison of the first and second quantities requires knowledge of the elasticity of demand facing the firm at the competitive price with regard to the universe of buyers. This elasticity is seldom measurable directly. *See, e.g., Broadway Delivery Corp. v. United Parcel Serv. of Amer.*, 651 F.2d 122, 128-29 (2d Cir.), *cert. denied*, 454 U.S. 968 (1981) ("Formulas can express the pertinent relationships between market power, market share, and demand and supply elasticities [citing Landes & Posner, *supra* note 2, at 945], but the data required for sophisticated analysis of a particular market are not always available, and their comprehension by jurors is uncertain at best.").

19. *See, e.g., United States v. E.I. du Pont de Nemours & Co.*, 351 U.S. 377, 404 (1956) ("[The] market is composed of products that have reasonable interchangeability for the purposes for which they are produced—price, use and qualities considered."); *SmithKline Corp. v. Eli Lilly & Co.*, 575 F.2d 1056, 1063 (3d Cir.), *cert. denied*, 439 U.S. 838 (1978) ("[D]efining a relevant product market is a process of describing those groups of producers which, because of the similar-

includes the output from which sellers supplying alternatives to these buyers could divert production capacity, i.e., close supply substitutes.²⁰ The relevant geographic market encompasses the locations of sellers of output in the relevant product market actually or potentially supplying the affected buyers.²¹

Often market shares are used as indicators of a firm's market power.²² The most informative market share under this model is the ratio of (1) purchases from the firm by buyers in the universe which would be made at a supracompetitive price to (2) those buyers' purchases from the firm at a competitive price. This conceptual market share can be approximated—with varying degrees of precision—by dividing the firm's sales to the affected buyers by the sum of those sales plus the capacity²³ of other firms to sell output in the relevant product market to the affected buyers. If the purchases by the affected buyers at the competitive price barely exceed those by the protected buyers, alternatives available to the affected buyers but not to the protected buyers should be given little weight in the market share calculation. Such alternatives represent few lost sales for the firm if it charges the protected buyers a supracompetitive price. Including these alternatives as substi-

ity of their products, have the ability—actual or potential—to take significant amounts of business away from each other.”). Both demand and supply substitutes are relevant in defining product markets. *See supra* note 3.

20. *See, e.g.*, *United States v. Columbia Steel Co.*, 334 U.S. 495, 510 (1948) (“If rolled steel producers can make other products as easily as plates and shapes, then the [relevant market is not] plates and shapes alone, but . . . all comparable rolled products.”); *Twin City Sportservice, Inc. v. Charles O. Finley & Co.*, 512 F.2d 1264, 1273 (9th Cir. 1975) (substitutability in production warranted including concession operations at various facilities presenting leisure-time events in the same relevant market).

21. The relevant geographic market is restricted to the area in which sellers of a particular product or service operate and to which purchasers can practicably turn for that product or service. *See, e.g.*, *Tampa Elec. Co. v. Nashville Coal Co.*, 365 U.S. 320, 327 (1961); *Elzinga & Hogarty*, *supra* note 2, at 45-81.

22. *See, e.g.*, *United States v. Grinnell Corp.*, 384 U.S. 563, 571 (1966) (“The existence of [monopoly] power ordinarily may be inferred from the predominant share of the market.”). *Accord* *Broadway Delivery Corp. v. United Parcel Serv. of Amer.*, 651 F.2d 122, 129 (2d Cir.), *cert. denied*, 454 U.S. 968 (1981).

In addition to drawing inferences from the size of a market share, courts have held that a declining market share may indicate the absence of market power. *See, e.g.*, *United States v. International Harvester Co.*, 274 U.S. 693, 709 (1927); *Greyhound Computer Corp. v. International Business Machs. Corp.*, 559 F.2d 488, 496 n.18 (9th Cir. 1977), *cert. denied*, 434 U.S. 1040 (1978).

23. *Landes & Posner, supra* note 2, at 949.

tutes for all buyers in the universe would cause the estimated market share to approximate poorly the theoretical market share.

B. Illustrative Applications of Affected-Buyers Analysis

Use of the affected-buyers model to define relevant markets in two types of fact situations will further help to explain this approach.

1. Related Products

One fact situation deals with the ability of a firm to charge a supracompetitive price for one of several related products. A case illustrating this situation is *Spectrofuge Corp. v. Beckman Instruments, Inc.*,²⁴ which involved a claim by Spectrofuge that Beckman had monopolized a relevant product market consisting of the servicing of Beckman's scientific instruments. Spectrofuge's allegations focused on the repair service alternatives available to existing owners of instruments manufactured by Beckman. Assume, contrary to the actual facts of the case, that Beckman was the sole source of service for these instruments. This does not lead to the conclusion that service for these machines constitutes a relevant market or that Beckman had the ability to charge a supracompetitive price for service.

The focus of the antitrust laws in this factual circumstance would be the prevention of anticompetitive exploitation of the existing owners of Beckman's instruments in need of service; these buyers will comprise the protected group for purposes of developing a definition of the relevant market. Existing owners would display little price elasticity²⁵ in their demand for Beckman's service because of the assumed absence of alternative suppliers of service. Even though potential buyers of Beckman's instruments might not need service for several years after

24. 575 F.2d 256 (5th Cir. 1978), *cert. denied*, 440 U.S. 939 (1979). For similarly decided cases involving related products, see *General Business Sys. v. North Amer. Philips Corp.*, 699 F.2d 965 (9th Cir. 1983); *Telex Corp. v. International Business Machs. Corp.*, 510 F.2d 894 (10th Cir.), *cert. dismissed*, 423 U.S. 802 (1975); *Bushie v. Stenocord Corp.*, 460 F.2d 116 (9th Cir. 1972); *In re Data Gen. Corp. Antitrust Litig.*, 529 F. Supp. 801 (N.D. Cal. 1981); *ILC Peripherals Leasing Corp. v. International Business Machs. Corp.*, 458 F. Supp. 423 (N.D. Cal. 1978), *aff'd sub nom. Memorex Corp. v. International Business Machs. Corp.*, 636 F.2d 1188 (9th Cir. 1980) (*per curiam*), *cert. denied*, 452 U.S. 972 (1981); *Advance Business Sys. & Supply Co. v. SCM Corp.*, 287 F. Supp. 143 (D. Md. 1968), *modified on other grounds*, 415 F.2d 55 (4th Cir. 1969), *cert. denied*, 397 U.S. 920 (1970).

25. Price elasticity of demand refers to the magnitude of the decline in quantity demanded in response to a rise in price.

purchasing the instruments, rational buyers would take into account the availability and cost of service when choosing among various manufacturers' instruments.²⁶ New buyers of instruments would be influenced by the satisfaction of existing owners of Beckman's instruments, including their experiences with the availability and price of Beckman's service. Beckman's price for service affects potential buyers of scientific instruments as well as existing owners. The two groups are linked from the perspective of Beckman when it prices its service. Therefore, when analyzing Beckman's power to price its services, the proper universe of buyers should include both existing owners and potential buyers of the package of Beckman's instruments and service.

The court in *Spectrofuge* found that Beckman faced vigorous competition for new buyers of its instruments and that current and future revenues from sales to new buyers were large relative to revenues from services to existing owners. The product market was defined to include the suppliers competing with Beckman for sales of the package of a new instrument and repair service. The court concluded that a supracompetitive price for the package would drive potential instrument buyers away from Beckman in a sufficient number to make the higher price unprofitable.²⁷

Note that Beckman could profitably charge a supracompetitive price for service as long as the instrument is priced below the competitive level by an offsetting amount. But for either of two reasons this does not necessarily mean that Beckman would have market power over service to existing owners. First, if the owners anticipate the supracompetitive price for service and choose Beckman's instrument anyway,

26. A rational buyer would choose the optimal mix of price and performance, with the cost and quality of service available for the instrument and need for service included in these considerations. *Spectrofuge Corp. v. Beckman Instruments, Inc.*, 575 F.2d 256, 279-80 (5th Cir. 1978), *cert. denied*, 440 U.S. 939 (1979).

Absent discrimination, consumers who search for optimal price and quality characteristics benefit consumers of the product who do not. "In mass transactions, discrimination by individual firms among their customers seldom occurs because firms cannot conveniently obtain the information to engage in such practices." Schwartz & Wilde, *Intervening in Markets on the Basis of Imperfect Information: A Legal and Economic Analysis*, 127 U. PA. L. REV. 630, 663 (1979).

27. 575 F.2d at 283. The market power apparently conferred by the limited elasticity of demand facing Beckman with regard to service in the short run is constrained by the detrimental effects that a supracompetitive price would have on Beckman's ability to attract future business for service and present and future business for instruments. *See generally* Klein & Leffler, *The Role of Market Forces in Assuring Contractual Performance*, 89 J. POL. ECON. 615 (1981); Telser, *A Theory of Self-Enforcing Agreements*, 53 J. BUS. 27 (1980).

they would not be exploited by the higher price. A firm in a competitive market should be allowed flexibility in how it prices related products.²⁸ Second, if the owners anticipated a lower price for service, prospective buyers would be driven away upon learning of an attempt by Beckman to exploit existing owners. Prospective instrument buyers would fear further price increases for service after purchasing Beckman's instrument, making the purchase less desirable to them. Ultimately, then, the increased service price would be unprofitable to Beckman.

2. *Subsets of a Firm's Customers*

A second type of fact situation deals with the ability of a firm to charge a supracompetitive price to a subset of its customers for a single type of output.²⁹ Assume a group of buyers, diabetics, with a strong preference for diet soda; sodas with sugar are unacceptable alternatives and other beverages are not good alternatives for them. Suppose that one firm produces diet soda and has a patent on the only sugar substitute that can be used in making diet soda.³⁰ There are no other actual or potential suppliers of diet soda because of the patent and no close demand substitutes for diet soda for diabetics. Nevertheless, these facts do not mean that diet soda is a relevant market or that the firm necessarily has the power profitably to charge diabetics a supracompetitive price for diet soda.

Once diabetics are identified as the protected buyers, the next step of the analysis for defining the relevant market inquires into the effects of raising the firm's price for diet soda to the protected buyers. Two questions must be addressed. First, are there a substantial number of other buyers (non-diabetics) who would purchase diet soda at the competitive price but not at a supracompetitive price? Suppose that there are such buyers who would purchase diet soda for its taste or low calories; for many of these buyers, sodas with sugar, available from a large

28. See *United States Steel Corp. v. Fortner Enters., Inc.*, 429 U.S. 610, 612 n.1 (1977).

29. The court in *In re Data Gen. Corp. Antitrust Litig.*, 529 F. Supp. 801, 813-15 (N.D. Cal. 1981), applied affected-buyers analysis in rejecting plaintiffs' claim that existing users of defendant's software constituted a relevant market. Old customers were linked to competition for new customers since there was no evidence that defendant imposed discriminatory prices or terms on its old customers. See *infra* text accompanying notes 44-46 & 55-64 for cases limiting markets to subsets of firms' customers.

30. The patent does not necessarily confer on the patentee market power. See *Lavey, supra* note 3.

number of suppliers, may be close demand substitutes for diet soda. The firm's revenues depend on sales of diet soda to these potential buyers of sodas with sugar as well as sales to the protected buyers who are committed to diet soda.

Second, before expanding the relevant universe beyond the protected buyers, it is necessary to ask about linkages among the firm's buyers who have different demand characteristics. Is it possible for the firm to price discriminate by raising the price for diet soda charged to the protected buyers without also raising the price for diet soda charged to other buyers? If so, the firm may be able to charge a supracompetitive price on sales of diet soda to the protected buyers without losing any sales of diet soda to potential buyers of sodas with sugar. Suppose that the firm is unable to differentiate among buyers according to their demand characteristics either because of an inability to identify the diabetics or their potentially unique buying patterns, or because of effective arbitrage. In either case, it is proper to define the affected buyers as including a substantial number of buyers with close demand substitutes for the firm's product.

The final step of affected-buyers analysis defines a relevant market in terms of the demand and supply substitutes available to the universe of buyers. Close demand substitutes for a substantial number, but not all, of the affected buyers would be included in the market. Even in the absence of supply substitutes and given a group of buyers (diabetics) without close demand substitutes, the firm may lack market power because of competition with suppliers of sodas with sugar for a substantial number of diet soda sales.

II. FIRM-COMPETITORS MODEL

A. General Description of Firm-Competitors Analysis

Firm-competitors analysis starts by focusing on a firm selling a certain product. The firm faces competition in the form of sellers that could take a substantial number of sales of that product away from the firm through substitutes available to some or all of the firm's buyers. The relevant product market is defined to include the products which could attract a substantial number of the firm's buyers or which are made with resources that could be readily directed to produce such products. The relevant geographic market consists of the locations of the sellers that could attract a substantial number of the firm's buyers.

The Supreme Court employed the firm-competitors approach in *United States v. Continental Can Co.*,³¹ in which the Court found that glass and metal containers were in the same product market because there was a pervasive, albeit incomplete, overlap in their uses. If glass container manufacturers tried to raise their prices, a substantial number of their buyers would purchase cans.

To understand the flaws of this model, one must recognize that markets are composed of certain buyers and all sellers competing to satisfy a demand of these buyers.³² Sellers which compete to satisfy a certain demand of some buyers may not compete to satisfy the somewhat different demand of other buyers. The existence of some competition between two sellers, i.e., the existence of *some* buyers who could turn to either seller to satisfy a demand, does not answer the critical question of whether one firm checks the ability of the other profitably to charge a supracompetitive price to certain, perhaps completely distinct, buyers. A firm may charge different prices to different groups of buyers; the availability of certain other sellers may protect some, but not all, of the firm's buyers from paying supracompetitive prices for the firm's product. Suppose that one firm's products are not good substitutes for most buyers from a second firm, and that the second firm can discriminate in its prices.³³ The two firms may compete for sales to a few buy-

31. 378 U.S. 441, 452-56 (1964). This case is discussed *infra* in the text accompanying notes 47-52.

32. See, e.g., 2 P. AREEDA & D. TURNER, *supra* note 1, at 347 ("In economic terms, a 'market' embraces one firm or any group of firms which, if unified by agreement or merger, would have market power in dealing with any group of buyers."); T. SCITOVSKY, *supra* note 7, at 14 ("A person has competition if the party he wants to trade with has alternative opportunities of exchange. The people who offer these alternative opportunities to his opposite party are his competitors.").

33. Price discrimination is "a pattern of pricing that yields different net returns from the sale or lease of the same or different products to different customers." 2 P. AREEDA & D. TURNER, *supra* note 1, at 342. See also *Falls City Indus., Inc. v. Vanco Beverages, Inc.*, 103 S. Ct. 1282, 1293 n.10 (1983) (discussing "economic" price discrimination). While price discrimination is evidence of market power, it may be hard to show price discrimination, especially when different products are involved. See 2 P. AREEDA & D. TURNER, *supra* note 1, at 342; Schwartz & Eisenstadt, *Vertical Restraints* 26-31 (1982) (U.S. Department of Justice Antitrust Division Economic Policy Office Discussion Paper). In the affected-buyers model, the possibility of price discrimination is used as a conceptual aid in analyzing segmentations and linkages among buyers and sellers. No evidence of actual price discrimination is necessary for this purpose. Through price discrimination, a firm can successfully compete for certain buyers without sacrificing its ability to extract higher profits from sales to other buyers for whom there is less competition. See G. STIGLER, *THE THEORY OF PRICE* 209-14 (3d ed. 1966). Examples of geographic price discrimination by a firm to meet competition from sellers in a particular area include *Utah Pie Co. v. Continental Baking Co.*,

ers who could be faced with supracompetitive prices if the firms merged and there were no other good substitutes available to those buyers. On the other hand, the first firm may fail to check the second firm's ability profitably to charge a supracompetitive price to most of its buyers, and those buyers would be unaffected by a merger of the firms. Given the small competitive overlap of the firms, analysis on the firm level may miss the merger's harm to some customers.

The implicit assumption of the firm-competitors model is that *all* of the buyers of a firm's product comprise the proper universe with regard to which close substitutes can be identified for purposes of defining relevant markets. This analysis would not treat a subset of the buyers of a firm's product as comprising the proper universe, nor would buyers of other products from the firm be included in the universe. This model assumes that a firm is prevented from charging a supracompetitive price only through competition against sellers which could take a substantial amount of sales of that product away from the firm. The model is blind to different segmentations or linkages among buyers of a firm's products. In some cases this blindness leads to an incorrect market definition and improper conclusion about a firm's market power.

B. Illustrative Applications of Firm-Competitors Analysis

1. Related Products

Under the modified *Spectrofuse* fact pattern,³⁴ the defendant has no competitors supplying service for its instruments. Even firms competing with the defendant for instrument sales cannot cut substantially into its service business for several years because buyers of new instruments will not require service for some time after their purchases. The firm-competitors model would define the product market for servicing the defendant's instruments as one in which the defendant faces no competition from other sellers. The implicit assumption underlying a market definition cast in terms of the substitutes available to existing owners is that buyers who currently demand service for instruments manufactured by the defendant cannot be protected from monopoly prices for service through linkages between new buyers and existing

386 U.S. 685 (1967); *FTC v. Anheuser-Busch, Inc.*, 363 U.S. 536 (1960); *Borden, Inc. v. FTC*, 674 F.2d 498 (6th Cir. 1982). An example of non-geographic selective discriminatory pricing to meet competition for specific customers appears in *O. Hommel Co. v. Ferro Corp.*, 659 F.2d 340, 356 (3d Cir. 1981), *cert. denied*, 455 U.S. 1017 (1982).

34. *See supra* text accompanying note 24.

owners. The resulting conclusion is that the defendant has market power over buyers of service for its instruments.

A case applying firm-competitors analysis to limit the relevant market to one of several related products is *Heattransfer Corp. v. Volkswagenwerk, A.G.*³⁵ There, the Fifth Circuit Court of Appeals held that sales of air conditioners for Volkswagen automobiles comprised a relevant market, because sellers of air conditioners to Volkswagen owners competed only against other sellers of Volkswagen air conditioners. Affected-buyers analysis might have recognized competition for buyers across various brands of air conditioned automobiles.

2. *Subsets of a Firm's Customers*

The Supreme Court arrived at an incorrect market definition by applying firm-competitors analysis in *United States v. E.I. du Pont de Nemours & Co.*³⁶ Du Pont was charged with monopolizing the market for cellophane. The majority defined the relevant product market to include other flexible wrapping materials, based on evidence that cellophane and other materials had overlapping uses. Cellophane had a low share of wrappings for uses such as bakery products and candy, but a 75-80% share of cigarette wrappings. Sales of cellophane accounted for less than 18% of sales of all flexible wrapping materials, which led the majority to the conclusion that the defendant lacked market power.³⁷ Further, the majority presumed sufficient linkages among cellophane buyers—similarity in demand, the availability of alternatives, and sensitivity to prices charged—that competition among suppliers of wrapping materials for *some* users would protect *all* buyers of cellophane from being charged supracompetitive prices.³⁸

In contrast, the dissent concluded that cellophane buyers deserved the benefits of competition within the cellophane industry.³⁹ In effect, it was argued that buyers of other wrapping materials would not have

35. 553 F.2d 964 (5th Cir. 1977), *cert. denied*, 434 U.S. 1087 (1978). *Contra* *Sulmeyer v. Coca Cola Co.*, 515 F.2d 835, 850 (5th Cir. 1975) (contours of an industry or a firm's products should not be dispositive of the bounds of a relevant market), *cert. denied*, 424 U.S. 934 (1976); *International Tel. & Tel. Corp. v. General Tel. & Elec. Corp.*, 518 F.2d 913, 930-34 (9th Cir. 1975) (same); *Telex Corp. v. International Business Machs. Corp.*, 510 F.2d 894, 917 (10th Cir.) (same), *cert. dismissed*, 423 U.S. 802 (1975).

36. 351 U.S. 377 (1956).

37. *Id.* at 399.

38. *Id.* at 399-400.

39. *Id.* at 424-25 (Warren, C.J., dissenting).

chosen cellophane in large numbers had the defendant priced cellophane at the competitive level. The dissent referred to evidence that producers of other wrappings remained dominant in sales of flexible wrappings despite substantial decreases in cellophane's price, and that these producers were not compelled to match the price decreases.⁴⁰

The majority in *du Pont* followed firm-competitors analysis by placing all buyers of cellophane in the universe and concluding from the existence of acceptable substitutes for some buyers that the relevant product market included all these substitutes.⁴¹ In contrast, the dissent pursued affected-buyers analysis; viewing actual buyers of cellophane as the protected group, the dissenters took the position that the affected buyers in the universe were limited to the protected group plus relatively few buyers of other wrappings. The existence of a wide range of alternatives and intense competition for sales to only a few potential buyers in the universe should not bias the market-share calculation.⁴² As the market was defined by the dissent, *du Pont* was dominant.

Analysis of the defendant's profits demonstrates that the defendant possessed the ability profitably to charge supracompetitive prices.⁴³ The buyers that switched from cellophane to other wrappings in the face of cellophane's supracompetitive price were too few to make the higher price unprofitable for the defendant. Applying the firm-competitors model, the majority was deceived by the existence of substantial competition for certain buyers into believing that such competition extended to all its buyers or at least prevented the defendant from charging supracompetitive prices. As shown in the dissenting opinion, application of the affected-buyers model would have avoided this mistaken result.

40. *Id.* at 418 (Warren, C.J., dissenting). Treating cellophane as a relevant market also implies that a substantial number of cellophane buyers would not switch to other wrapping papers if the price of cellophane were to rise.

41. See Landes & Posner, *supra* note 2, at 960-61 (pointing out that the Court made an economic error by looking at substitution between cellophane and other flexible wrapping materials at the current price of cellophane rather than at cellophane's competitive price, equal to its marginal cost). See also Rill & Ransom, *The Single Product as a Relevant Market in Attempt to Monopolize Cases*, 26 MERCER L. REV. 823 (1974); Turner, *Antitrust Policy and the Cellophane Case*, 70 HARV. L. REV. 281 (1956); Note, *The Propriety of the Single Firm's Product as the Relevant Market in Attempt to Monopolize Cases*, 29 BAYLOR L. REV. 77 (1977).

42. See *supra* text accompanying notes 22-23.

43. See Stocking & Mueller, *The Cellophane Case and the New Competition*, 45 AM. ECON. REV. 29, 62 (1955). Persistent supracompetitive profits indicate that a firm possesses market power. 2 P. AREEDA & D. TURNER, *supra* note 1, at 331-41.

In *United States v. Household Finance Corp.*,⁴⁴ the district court took an approach similar to that of the majority in *du Pont*. The district court found that consumer finance companies did not comprise a distinct market because there was substantial overlap in the types of customers served by consumer finance companies and other financial institutions.⁴⁵ The appellate court departed from the firm-competitors model applied by the court below, finding that a distinct market was supported by the evidence that finance companies offered unique products and services to a class of high risk customers not serviced by other financial institutions. These customers, constituting fifteen to fifty percent of the finance company clientele, could not turn to the same alternative sources of financing available to other finance company customers.⁴⁶

Suppose that finance companies could charge their higher risk customers interest rates different from and independent of the rates charged to their customers who have good alternative sources of financing. Suppose further that other financial institutions could not readily provide products and services to higher risk customers, i.e., there were few close supply substitutes. The affected-buyers model would not place all finance company customers in the same market. Finance companies might have market power over higher risk customers but not over others. The firm-competitors model assumes a linkage between higher risk and other finance company customers which would be analyzed and rejected by the affected-buyers model. Under these assumptions, affected-buyers analysis supports the appellate court's narrower market definition.

A final example of misleading results occasioned by application of the firm-competitors analysis is *United States v. Continental Can Co.*⁴⁷ The district court held that the existence of some competition in end uses among metal, glass, and plastic containers did not mean that a relevant product market included each type of product. Since manufacturers of the different types of containers did not compete for some end uses, the court concluded that firms in the glass container industry

44. 602 F.2d 1255 (7th Cir. 1979), *cert. denied*, 444 U.S. 1044 (1980).

45. *Id.* at 1260.

46. *Id.* at 1265. The appellate court failed to consider close supply substitutes in defining the relevant product market. For example, banks would have encountered low entry barriers in developing and marketing products and services for higher-risk customers.

47. 217 F. Supp. 761 (S.D.N.Y. 1963), *rev'd*, 378 U.S. 441 (1964).

should not be viewed as competitors of firms in the metal container industry. The court treated the merger of a glass container manufacturer with a metal container manufacturer as a conglomerate combination involving no lessening of direct (horizontal) competition between the merging firms.⁴⁸

The Supreme Court reversed, defining a relevant product market as all end uses for which manufacturers of glass and metal containers competed, and concluded that the merger violated section 7 of the Clayton Act in that market.⁴⁹ The Court replaced the district court's naive, industry-oriented analysis of firm competition with analysis which better reflected the contours of firm competition. Still, if the Court had not found that inter-industry competition was pervasive,⁵⁰ it might have concluded that the firms were not in the same market despite the merger's effect of lessening competition for buyers in certain end uses.

In contrast, affected-buyers analysis would treat buyers in a certain end use as protected buyers and inquire into the linkages between those buyers and buyers in other end uses. If, for example, a firm could raise its price for beer containers without affecting its prices for or sales of other containers, then buyers of beer containers may be the protected buyers as well as the universe of affected buyers. Demand and supply substitutes should be determined with regard to buyers of beer containers, thus defining the relevant market and a line of commerce for purposes of section 7 of the Clayton Act.⁵¹ If the merger would be likely to lessen competition in that market, it would be unlawful regardless of the absence of anticompetitive impacts in other markets for

48. *Id.* at 781-82. See generally Merger Guidelines of Department of Justice—1982, *supra* note 2, ¶ 4504.10-.103; Areeda & Turner, *Conglomerate Mergers: Extended Interdependence and Effects of Interindustry Competition as Grounds for Condemnation*, 127 U. PA. L. REV. 1082 (1979); Goldberg, *The Effect of Conglomerate Mergers on Competition*, 16 J.L. & ECON. 137 (1973).

49. 378 U.S. 441, 457, 463 (1964).

50. *Id.* at 456. See Werden, *Section 7 of the Clayton Act and the Analysis of "Semihorizontal" Mergers*, 27 ANTITRUST BULL. 135 (1982).

51. Both the district court and the Supreme Court struggled with the relationship between industries and lines of commerce for purposes of § 7 of the Clayton Act. See 378 U.S. at 449-58; *id.* at 467-72 (Harlan, J., dissenting); 217 F. Supp. at 780-82. The Supreme Court held as follows:

We would not be true to the purpose of the Clayton Act's line of commerce concept as a framework within which to measure the effect of mergers on competition were we to hold that the existence of non-competitive segments within a proposed market area precludes its being treated as a line of commerce.

378 U.S. at 457.

containers.⁵²

Of course, the firm-competitors and affected-buyers models can yield the same market definition in some cases. However, when the resulting market definitions differ, the affected-buyers approach better reflects the competitive checks facing a firm in its decision whether to raise prices above the competitive level.

III. BUYERS-ALTERNATIVES MODEL

A. General Description of Buyers-Alternatives Analysis

The buyers-alternatives analysis starts with a group of buyers who would be likely to purchase a firm's product if it were competitively priced. This group does not necessarily include all actual or potential buyers of the firm's output. The relevant product and geographic markets are defined with respect to this group. According to this analysis, the proper universe of buyers for identifying close substitutes is limited to this group.

An illustrative application of the buyers-alternatives model appears in *United States v. Philadelphia National Bank*.⁵³ The Supreme Court found that the relevant product market was the cluster of services provided by full-service banks and that the relevant geographic market was the four-county Philadelphia area. Despite the fact that large Philadelphia businesses had nationwide and worldwide alternatives for banking services, the Court rejected a larger geographic market because geographic convenience was an important factor limiting the alternatives available to small depositors and small businesses. With the

52. See, e.g., *Crown Zellerbach Corp. v. FTC*, 296 F.2d 800, 811-12 (9th Cir. 1961), cert. denied, 370 U.S. 937 (1962).

53. 374 U.S. 321, 360-61 (1963). The market analysis in this case is criticized in 2 P. AREEDA & D. TURNER, *supra* note 1, at 411-14, and in Note, *The Line of Commerce for Commercial Bank Mergers: A Product-Oriented Redefinition*, 96 HARV. L. REV. 907 (1983). Another example of buyers-alternatives analysis is *International Boxing Club, Inc. v. United States*, 358 U.S. 242, 251 (1959) (finding that championship boxing comprised a distinct market, based in part on evidence that broadcasters did not treat other boxing as a good alternative to championship boxing).

In Harris & Jorde, *Market Definition in the Merger Guidelines: Implications for Antitrust Enforcement*, 71 CAL. L. REV. 464, 493-94 (1983), the authors advocate a process of market definition based on identification of "protected interests." "[M]arket definition should begin from the perspective of the injured, or potentially injured, groups that the antitrust laws were intended to protect." *Id.* at 493. In accordance with the buyers-alternative model described in this article, Harris and Jorde recommend defining the relevant market as the alternatives available to the protected buyers.

universe of buyers identified as small depositors and small businesses, only local banks supplied close substitutes.

This model is similar to the affected-buyers model but with one crucial difference. Both start with a group of protected buyers. The buyers-alternatives model, however, does not employ the second step of the affected-buyers model: examining whether the buyers in the universe (the affected buyers) should extend beyond the protected buyers because of linkages. The crucial flaw in the buyers-alternatives model is the implicit assumption that no linkages exist to other buyers. Under this assumption, the firm is prevented from charging a supracompetitive price to the protected buyers because of, and only because of, alternatives available to those buyers.

To illustrate, one firm may be able to sell alternative products to a substantial number, but not all, of a second firm's buyers. The second firm's buyers may be spread over geographically distant areas or have other different characteristics which cause them to have distinct alternatives.⁵⁴ Yet, competition for some of the second firm's buyers can benefit its other buyers if there are sufficient linkages between them. The second firm's attempt to charge a supracompetitive price to the buyers potentially not supplied by the first firm can cause other buyers to turn to the first firm. If so, the first firm poses a competitive restraint for all of the second firm's buyers and should be included in the market defined with reference to any universe of the second firm's buyers. The buyers-alternatives model would not include the first firm in the market for some of the second firm's buyers because the first firm does not supply a substitute to them.

B. Illustrative Applications of Buyers-Alternatives Analysis

1. Related Products

The affected-buyers and buyers-alternatives models would lead to different market definitions for the fact situation presented in *Spectrofuge*. Again assuming that the existing owners in *Spectrofuge* did not have alternative sources of supply, Beckman had market power according to buyers-alternatives analysis. On the other hand, affected-buyers analysis revealed that Beckman lacked the ability profitably to charge this group of buyers a supracompetitive price. The existing

54. See *supra* note 33.

owners would comprise the proper universe of buyers for the identification of substitutes according to buyers-alternatives analysis, but not according to affected-buyers analysis.

2. *Subsets of a Firm's Customers*

Buyers-alternatives analysis apparently led the Supreme Court to a mistaken product market definition in *United States v. Grinnell Corporation*.⁵⁵ The defendants provided accredited central station protective service. The Court found that such service constituted a separate market, excluding unaccredited central station protective services, watchmen, and on-site alarms. Accredited service offered superior performance but was more expensive to provide. The range of protective services gave buyers a variety of price and quality options. The Court based its finding of a separate market on evidence that the alternatives were inferior and that many buyers had a strong preference for accredited service.⁵⁶

This evidence did not establish that the defendants had the ability profitably to charge a supracompetitive price. As the dissent noted, the defendants operated twenty offices at a deficit in cities with no other central station, suggesting that a substantial number of buyers had good alternatives for protective services.⁵⁷ Furthermore, there was no evidence that the defendants charged different prices to buyers in the same locality. It appears that buyers who would purchase only accredited service were linked to a sufficient number of buyers with good alternatives to prevent the defendants from exploiting those who would purchase only accredited service. Under affected-buyers analysis, this linkage would lead to a market definition which includes suppliers of alternative protective services. Buyers-alternatives analysis wrongly assumed no linkage, and consequently arrived at a mistaken market definition and improper conclusion about the defendants' market power.⁵⁸

55. 384 U.S. 563 (1966).

56. *Id.* at 573-75.

57. *Id.* at 592 (Fortas, J., dissenting). This pattern of losses could occur even without good alternatives if there were no price at which the revenues from the demand for central station protective services exceeded the cost of supplying those services.

58. The Court in *Grinnell* defined the geographic market to be the entire nation, despite the fact that the demand for protective services occurred at fixed locations and that central stations could supply services only within a 25-mile radius. The Court looked beyond the economic factors of demand and supply substitutes in defining the geographic market. The scope of the defendants' operation was nationwide, but with local variations in pricing. The defendants dealt

Two other examples of possibly incorrect market definitions resulting from buyers-alternatives analysis should be mentioned. The Seventh Circuit in *Columbia Broadcasting System, Inc. v. Federal Trade Commission*⁵⁹ found a record clubs submarket within the product market of all record sales. The primary evidence for defining the submarket was the distinct demand characteristics of record club members as opposed to other record buyers.⁶⁰ While record club members comprised a group of protected buyers, the evidence that the affected buyers were limited to this group was unconvincing. Record club members purchased some records from retail dealers, and club membership lasted for only two years.⁶¹ If record clubs attempted to raise prices, they would attract fewer new members, fewer existing members would renew their memberships, and existing members would buy fewer records during their memberships from the record clubs. Retail record sellers probably were good demand substitutes for record clubs, making unprofitable any price increase by record clubs above the competitive level. Affected-buyers analysis would not recognize a relevant submarket of record clubs within the market of record sellers. By ignoring the linkages between record club members and other present and future record buyers, buyers-alternatives analysis delineated incorrectly a submarket on which the finding of market power was based.

Buyers-alternatives analysis led to the finding of a newspaper home

with multistate businesses on the basis of nationwide contracts. *Id.* at 575. If multistate buyers could arrange for local contracts without high transaction costs compared to dealing with a nationwide operation, then alternatives available in each of the local areas where a multistate business had establishments checked the prices charged in a nationwide contract. Analysis according to the affected-buyers and buyers-alternatives models would lead to the same conclusion, namely that the relevant geographic markets were local areas.

59. 414 F.2d 974, 981 (7th Cir. 1969), *cert. denied*, 397 U.S. 907 (1970). As in its later decision in *United States v. Household Fin. Corp.*, 602 F.2d 1255 (7th Cir. 1979), *cert. denied*, 444 U.S. 1044 (1980), the Seventh Circuit failed to consider supply substitutes in defining the relevant product market. The court in *Columbia Broadcasting System* found that other mail order sellers were not in the same market as record clubs because the characteristics of their customers differed. Thus, the court ignored the ability of other mail order sellers to use their existing marketing systems with different record offerings to increase their selling appeal to customers of record clubs. *Id.* at 979.

60. A club member is one who prefers to sit at home and select records rather than make many trips to the store; wants guidance in repertoire selection; seeks economical values; and is willing to accept the disadvantages of club membership such as long waiting periods for delivery, limited selection and a contractual commitment as to the number of purchases.

Id.

61. *Id.* at 976, 979.

delivery market in *Evening News Publishing Co. v. Allied Newspaper Carriers of New Jersey*.⁶² Although about eighty percent of the newspaper's circulation was by mail on direct subscription and by sales through stores and newsstands,⁶³ the court found that there was a substantial category of readers of the plaintiff's newspaper who preferred to have home delivery.⁶⁴ Under buyers-alternatives analysis, the demand characteristics of this group of buyers provided the basis for delineating the market. Affected-buyers analysis would inquire into the existence and size of a group of buyers who would take home delivery at the competitive price but not at supracompetitive prices. In *Evening News Publishing*, this group might have protected other buyers who would have preferred home delivery even at supracompetitive prices from having to pay such prices, if charging supracompetitive prices for home delivery would have been unprofitable. These buyers, who would take home delivery only at the competitive price, would link buyers who would purchase through home delivery even at supracompetitive prices to the competitive alternatives of other distribution channels. Under these conditions, home delivery would be an overly narrow market.

As with firm-competitors analysis, buyers-alternatives analysis will yield the same delineation of markets as affected-buyers analysis in many cases. However, the analysis of the competitive constraints on a firm's pricing under the buyers-alternatives model is incomplete and may lead to incorrect market definitions in other situations.

IV. 1982 MERGER GUIDELINES OF THE U.S. DEPARTMENT OF JUSTICE AND FEDERAL TRADE COMMISSION

The U.S. Department of Justice and the Federal Trade Commission (FTC) issued merger guidelines on June 14, 1982, intended to clarify government enforcement standards.⁶⁵ Each set of guidelines discusses

62. 160 F. Supp. 568, 576 (D.N.J. 1958), *aff'd*, 263 F.2d 715 (3d Cir.), *cert. denied*, 360 U.S. 929 (1959). Other cases distinguishing home delivery and street sales markets for newspapers include *Blankenship v. Hearst Corp.*, 519 F.2d 418, 423 (9th Cir. 1975); *Newberry v. Washington Post Co.*, 438 F. Supp. 470, 476 (D.D.C. 1977); *McGuire v. Times Mirror Co.*, 405 F. Supp. 57, 59-60, 66 (C.D. Cal. 1975).

63. 160 F. Supp. at 571.

64. *Id.* at 576.

65. Merger Guidelines of Department of Justice—1982, *supra* note 2; Statement of Federal Trade Commission Concerning Horizontal Mergers, TRADE REG. REP. (CCH) No. 546, at 73 (June 14, 1982) [hereinafter cited as FTC Merger Guidelines], *reprinted in Oversight of Government*

factors for defining relevant markets. Unfortunately, both fail to incorporate the elements of affected-buyers analysis that avoid certain pitfalls in market definition. The Justice Department guidelines resemble the firm-competitors model, while those of the FTC reflect some buyers-alternatives analysis. The FTC guidelines will be critiqued first because they are plainly inadequate; the problem with the Justice Department's guidelines is more subtle.

A. *Federal Trade Commission Guidelines*

There is no discussion in the FTC guidelines of how to analyze segmentations and linkages of buyers and sellers in defining markets. These guidelines note that direct evidence of cross-elasticities of demand or supply is generally unavailable.⁶⁶ Listed among the indirect evidence of the existence of separate product markets is "the preference of a number of purchasers who traditionally use only a particular kind of product for a distinct use."⁶⁷ Although such evidence may indicate a low cross-elasticity of demand, it also suggests buyers-alternatives analysis and its inadequacies. By ignoring the potential of one group of buyers to protect another group of buyers from anticompetitive prices and practices, this evidence can lead to an underinclusive market and a mistaken assessment of the impacts of a merger on competition. For example, a merger between Beckman (the defendant in *Spectrofuge*) and a hypothetical other supplier of services to owners of Beckman's instruments might be viewed as unlawful under the FTC guidelines, but would have little effect on competition among packages of instruments and services.

B. *Justice Department Guidelines*

The Justice Department guidelines provide a more thorough, systematic treatment of factors for defining relevant markets than do those of the FTC. With regard to relevant product markets, these guidelines take the products of the merging firms and existing patterns of supply

Merger Enforcement Policy: Hearing Before the Senate Comm. on the Judiciary, 97th Cong., 2d Sess. 21 (1982) [hereinafter cited as Oversight Hearings]. See also Fox, The New Merger Guidelines—A Blueprint for Microeconomic Analysis, 27 ANTITRUST BULL. 519 (1982); Werden, Market Delineation and the Justice Department's Merger Guidelines, supra note 2; 1982 Merger Guidelines, 71 CAL. L. REV. 280 (1983).

66. FTC Merger Guidelines, *supra* note 65, at 84, reprinted in *Oversight Hearings, supra* note 65, at 23.

67. *Id.*

and demand as a beginning point.⁶⁸ These guidelines recognize possible buyer segmentation attributable to price discrimination,⁶⁹ which is a modification of the firm-competitors model:

Even though a general increase in price [for a merging firm's product] might cause such significant substitution that it would not be profitable, sellers who can price discriminate could raise price only to groups of buyers who cannot easily substitute away. If such price discrimination is possible, the Department will consider defining additional, narrower relevant product markets oriented to the buyer groups subject to the exercise of market power.⁷⁰

Similarly, regarding geographic markets, these guidelines take the location of the merging firm as a beginning point and establish a provisional geographic market based on the shipment patterns of that firm and its strongest competitors.⁷¹ Where geographic price discrimination is possible, additional, narrower geographic markets oriented to those buyer groups subject to the exercise of market power may be defined.⁷²

The essential distinction between the approach to market definition in the Justice Department guidelines and the affected-buyers model involves the starting point and direction of analysis. The Justice Department guidelines start on the level of the firm's product and shipment pattern, and ask whether a narrower baseline for identifying substitutes is indicated by possible price discrimination (i.e., segmentations). In contrast, the affected-buyers model starts on the level of what is demanded by a group of buyers and the locations of sellers to those buyers, and asks whether a broader baseline for identifying substitutes is indicated by possible linkages. In some cases, this distinction leads to different market definitions, with the ones defined by the affected-buyers model corresponding more closely to the competitive checks in the marketplace.

This distinction may be illustrated by reference to the assumed facts

68. Merger Guidelines of Department of Justice—1982, *supra* note 2, ¶ 4502.10; Werden, Market Delineation and the Justice Department's Merger Guidelines, *supra* note 2, at 22.

69. The example of price discrimination given in these guidelines is charging different buyers different prices for products having the same cost. Merger Guidelines of Department of Justice—1982, *supra* note 2, ¶ 4502.10. It is not clear whether the Justice Department would define price discrimination for this purpose as broadly as prices which yield different net returns from the sale of the same or different products to different customers. *See supra* note 33.

70. Merger Guidelines of Department of Justice—1982, *supra* note 2, ¶ 4502.10 (footnotes omitted).

71. *Id.* ¶ 4502.30.

72. *Id.*

in *Spectrofuze*. Beckman's product could be defined as its instruments, its service for its instruments, or its packages of instruments and service.⁷³ The Justice Department guidelines do not help to identify the proper product definition for the starting point of analysis. Yet, the starting point is important to the conclusion under these guidelines about the anticompetitive effects of possible mergers. Consider two possible mergers for Beckman, one with a hypothetical new supplier of service for Beckman's instruments and the other with the dominant supplier of service for other manufacturers' instruments.

If the analysis begins with instruments as the product, the Justice Department guidelines would indicate that a proper product market is sales of all instruments which are demand or supply substitutes for Beckman's instruments. A narrower market to reflect possible price discrimination is not necessary. Neither merger would increase the concentration⁷⁴ in this market, thus suggesting no opposition by the Justice Department.

If the analysis begins with service as the product, the product market would be defined in terms of firms that provide or could provide service for Beckman's instruments, supposing that services for other machines are neither supply nor demand substitutes. Again, the guidelines call for no narrower market definition since there is no price discrimination among buyers of this service. With this market definition, the Justice Department probably would oppose the first merger

73. Courts have recognized ambiguities in defining products in cases involving alleged tying arrangements. See, e.g., *United States Steel Corp. v. Fortner Enters., Inc.*, 429 U.S. 610 (1977); *Krehl v. Baskin-Robbins Ice Cream Co.*, 664 F.2d 1348 (9th Cir. 1982); *Principe v. McDonald's Corp.*, 631 F.2d 303 (4th Cir. 1980); *Kugler v. AAMCO Automatic Transmissions*, 460 F.2d 1214 (8th Cir. 1972); *Siegel v. Chicken Delight, Inc.*, 448 F.2d 43 (9th Cir. 1971), *cert. denied*, 405 U.S. 955 (1972); *ILC Peripherals Leasing Corp. v. International Business Machs. Corp.*, 448 F. Supp. 228 (N.D. Cal. 1978), *aff'd sub nom. Memorex Corp. v. International Business Machs. Corp.*, 636 F.2d 1188 (9th Cir.) (per curiam), *cert. denied*, 452 U.S. 972 (1981). See also *N.W. Controls, Inc. v. Outboard Marine Corp.*, 333 F. Supp. 493, 501 (D. Del. 1971) ("antitrust decisions and literature contain astonishingly little discussion of the criteria to be applied to distinguish between component parts of a single product and a multiplicity of products"). The affected-buyers model starts with the output demanded by the protected buyers. Such output can be viewed as one or more attributes provided by a firm to satisfy the protected buyers' demand and may include what some would consider to be a single product, multiple products, or a component of a product.

74. Under the Justice Department guidelines, concentration in horizontal mergers is measured by the Herfindahl-Hirschman Index. Merger Guidelines of Department of Justice—1982, *supra* note 2, ¶ 4503.10. See generally Calkins, *The New Merger Guidelines and the Herfindahl-Hirschman Index*, 71 CAL. L. REV. 402 (1983); Miller, *The Herfindahl-Hirschman Index as a Market Structure Variable: An Exposition for Antitrust Practitioners*, 27 ANTITRUST BULL. 593 (1982).

(with the new supplier of service for Beckman's instruments) but not the second (with the dominant supplier of service for other manufacturers' instruments).

Finally, if the analysis begins with packages of instruments and service as the product, the product market would include all instruments which are demand or supply substitutes for Beckman's instruments and all services for all these instruments. The concern for price discrimination does not indicate the need for defining a narrower market. The second merger might lessen competition between Beckman's package and the packages including the instruments of other manufacturers by lessening service rivalry across brands of instruments. Viewed in the context of this product market, this merger probably would face opposition from the Justice Department. The first merger might decrease the attractiveness of Beckman's package by raising the price or by lowering the quality of service for Beckman's instruments. If it is assumed that inter-package competition is strong,⁷⁵ this merger probably would not face opposition by the Justice Department.

There is ambiguity under the Justice Department guidelines about a merger's impact on competition. This ambiguity is attributable to the lack of guidance on how to define a firm's product. In contrast, the affected-buyers model unambiguously defines the baseline for identifying substitutes as what the affected buyers would purchase from Beckman if it charged a competitive price for its output demanded by the protected buyers. Linkages from the service demanded by the protected buyers lead to a product market defined *both* in terms of service for Beckman's instruments and of packages of instruments and service demanded by the affected buyers.⁷⁶

While the first merger might be opposed under the Justice Department guidelines by using the starting point of service or by using all

75. Interbrand competition—competition among different manufacturers of the same generic product—is “the primary concern of antitrust law.” *Continental T.V., Inc. v. GTE Sylvania Inc.*, 433 U.S. 36, 52 n.19 (1977).

76. Of course, analysis under the Justice Department guidelines can employ multiple starting points, just as analysis under the affected-buyers model can employ multiple groups of affected buyers. However, in this example the Justice Department guidelines do not indicate whether a lessening of competition determined by starting with service should justify challenging a merger. The linkage between service and instruments is not explored in this analysis but may negate concerns about lessened competition. In contrast, the affected-buyers model provides the basis for challenging a merger whenever a determination of lessened competition is made by starting with any group of protected buyers.

three starting points as equally credible alternatives, the merger probably would not be opposed pursuant to affected-buyers analysis. An increase in the price of service for Beckman's instruments would be unprofitable because of a shift in demand to other manufacturers' packages of instruments and service. While the second merger might be unopposed under the guidelines using the starting points of instruments or service, it probably would be opposed pursuant to affected-buyers analysis. An increase in the price of service for Beckman's instruments could be accompanied by an increase in the price of service for other manufacturers' instruments, resulting in potentially little loss of business for the merged firm in service or packages of instruments and service.

CONCLUSION

Defining relevant markets is an important and difficult area of anti-trust analysis. As the Supreme Court has recognized, markets seldom can be delineated and market shares seldom can be calculated precisely.⁷⁷ A market can provide at best only a rough picture of a firm's market power.⁷⁸ The guiding goal in delineating markets is to assess the ability of a firm profitably to charge a supracompetitive price. Markets should reflect the linkages and segmentations among buyers and among sellers. Such relationships should not be presumed. Linkages among sellers in a market are not always limited to suppliers of alternative products, nor are linkages among buyers in a market based solely on similar demand characteristics. Affected-buyers analysis evaluates the strength of these linkages, leading to market definitions and market shares from which a firm's market power can be assessed more accurately.

The three models for defining markets described in this paper—affected-buyers, firm-competitors, and buyers-alternatives—yield identical market definitions in many cases. Where they differ, the affected-buyers model provides a more reliable approach to analyzing market power.

77. *See, e.g.,* United States v. E.I. du Pont de Nemours & Co., 351 U.S. 377, 395 (1956) ("Industrial activities cannot be confined to trim categories.").

78. Landes & Posner, *supra* note 2, at 983.

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